



COATINGS AND ANTI CORROSION ENGINEERING REVIEW

April - May 2026 | Volume 17 Issue 1 | ₹100



The global wind turbine coatings market witnessing steady expansion



Interview
Mr Liang Youlyu
*General Manager,
UTOP Singapore Subsidiary*

Technical Feature
**Preserving coating durability with
dehumidification solutions in industrial setups**



Line Pressure Monitoring



Auto Flushing Monitoring



Basic Level Predictive Maintenance



Heavy Leakage Monitoring



Volume Totalizer



Line Flow Rate Monitoring



All Pump Cut Off In Case Of Fire



Pump Run Away Alarm
Preventive maintenance
timers / alarms



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(Optional)



SACDA communication



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Automotive Industries



Polyurethane coating



Heavy PEB structures



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- Antifouling coatings



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From the Editor-in-Chief...



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The 2026 Gulf conflict has intensified the scope for alternative fuels, acting as a catalyst for accelerating green energy transitions. Rising oil prices (~\$100/barrel) and disruptions at the Strait of Hormuz are driving an urgent, long-term shift toward renewable energy sources, including wind, solar, hydropower, and nuclear energy.

In every economic decision, force majeure measures like earthquakes, floods, tsunamis, typhoons, landslides, wars – external or civil, election disruptions, currency value devaluation or appreciation are all usually taken care of. According to an ex-vice president of an oil company, the risk at the Strait of Hormuz was one factor that was never thought of or taken seriously.

However, the almighty has given humans so many energy resources in the form of water (hydro), fire (hot springs, volcanoes), wind (wind energy), sun (solar) and earth (magnetism, including oil and gas).

In this edition, we speak about the global wind turbine coatings market that is witnessing steady expansion as the renewable energy sector gains momentum worldwide.

This growth is largely driven by increasing investments in wind energy projects, technological advancements in coating materials, and the need for enhanced durability and performance of wind turbine components in harsh environmental conditions. Wind turbine coatings protect blades and structures from harsh environmental conditions like rain erosion, UV radiation, and saltwater corrosion, enhancing lifespan and efficiency.

The market is also benefiting from technological advancements in coating formulations. Manufacturers are investing in research and development to create coatings with enhanced properties such as self-healing capabilities, improved adhesion, and reduced environmental impact.

In this issue we talk about the challenges, the opportunities and some of the new developments in this sector. Plus, all our regular columns and features.

In the meanwhile, we hope and trust that the situation in the Gulf region will stabilize and normalize soon.

Jolly Lonappan
Editor-in-Chief



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CORROSION, ABRASION & CHEMICAL ATTACKS destroy crores of rupees worth equipment every year. Worldwide research shows that nearly 70%-80% equipment failures are purely due to their surface erosion. The need for effective preventive maintenance therefore is imperative.

The time has arrived for ceramics to finally take centre stage. Jyoti Ceramic Industries has specially developed ceramic filled polymer based coating compounds, "Aluma Coat® -BR" brushable / sprayable and "Aluma Coat® -TW" trowelable.



VERSATILE INDUSTRIAL APPLICATIONS



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Aluma Coat - BR



Butterfly Valve
Coated with
Aluma Coat - BR

Aluma Coat® - BR

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Aluma Coat® - TW

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VERSATILE INDUSTRIAL APPLICATIONS



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GIT Coatings unlocks a new era of hull performance management with the launch of XGIT-FORCE™

GIT Coatings (gitcoatings.com), a global leader in sustainable high-performance marine coatings, has announced the launch of its next-generation graphene-base hard foul-release coating, XGIT-FORCE™. This launch marks a fundamental shift in the maritime industry, moving beyond traditional biocide-based antifouling protection to a new era of hull performance management, notes a press release from the company.

performance solution that gives them the flexibility to actively manage fleet efficiency and turn ambitious decarbonization goals into a reliable, competitive advantage.”

XGIT-FORCE™ is the result of years of intensive research and development, involving rigorous testing and trials in different fouling pressure conditions across the globe. Their proprietary Dynamic Phase Engineered



With first applications already underway across a global fleet, XGIT-FORCE™ is engineered to unlock up to 10% fuel savings and provide the highest return on investment of any antifouling coating on the market.

With first applications already underway across a global fleet, XGIT-FORCE™ is engineered to unlock up to 10% fuel savings and provide the highest return on investment of any antifouling coating on the market. With this launch, GIT Coatings is proving that peak operational efficiency no longer requires polluting the marine environment.

“XGIT-FORCE™ represents the natural evolution of our graphene-based solutions and a definitive step toward a new era of proactive hull performance management,” said Mo AlGermozzi, CEO of GIT Coatings. “By listening closely to our customers and integrating years of real-world learning, we have refined a technology that is mature, reliable, and biocide-free. This launch is about providing shipowners with a high-

Technology (DPET) combines smart surface chemistry with graphene-reinforced mechanical tuning to create a dynamic, amphiphilic barrier that inhibits biofilm formation and maximizes foul-release performance.

Building on this foul-release foundation, XGIT-FORCE™ delivers one of the smoothest surface profiles in the industry – providing a guaranteed 6% out-of-dock power gain compared to premium biocidal antifouling coatings – while offering the mechanical durability to withstand ice friction, fender impacts, and frequent cleanings. As a zero-leaching solution, it ensures shipowners can reduce fuel consumption and emissions without shedding toxic chemicals or microplastics into the marine environment, adds the press release.

AI-supported inline paint inspection and a fully automated robotic repair system

EINES Systems SLU (eines.com) Spain, presents an integrated, fully automated tunnel solution that combines ESFI (EINES Surface Paint Quality Inspector) with the AutoRepair robotic repair system to create a closed, digital inline process for the detection and autonomous repair of paint defects. The ESFI system uses advanced AI algorithms and high-resolution optical technologies to precisely detect, classify, and locate

polishing processes with millimeter precision – either inline or in stop-and-go mode, depending on customer requirements.

The seamless integration of inspection and repair creates a closed loop between defect detection and corrective action. What makes this innovation special is the complete automation of the entire workflow: paint defects are not only identified, but also automatically corrected without subjective human



The ESFI system uses advanced AI algorithms and high-resolution optical technologies to precisely detect, classify, and locate surface defects such as dust inclusions, craters, runs, or scratches – directly on the production line and without stopping production.

surface defects such as dust inclusions, craters, runs, or scratches – directly on the production line and without stopping production, notes a press release from the company.

Each detected defect is measured in three dimensions and digitally mapped. This data is automatically transferred to the AutoRepair system. Based on the exact position and classification data, AutoRepair performs fully autonomous grinding and

evaluation.

The system reduces operator dependency, minimizes rework and scrap, increases process stability, and ensures complete digital traceability for quality analysis and continuous process optimization. With ESFI + AutoRepair, EINES enables OEMs and tier suppliers to achieve a resilient, scalable, and future-proof paint process architecture with the goal of a sustainable zero-defect strategy.



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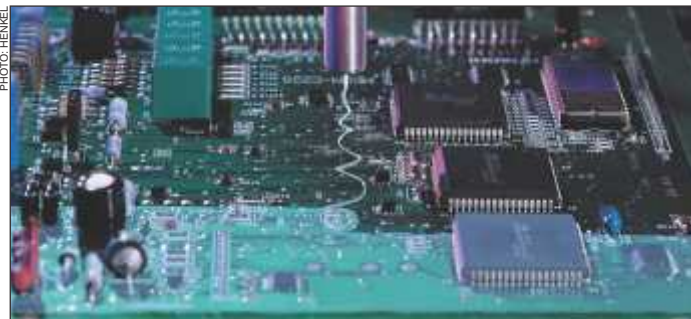
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Henkel expands conformal coating portfolio with solvent-free, cost-competitive, UL 94 V-0 rated formulation

Henkel has announced the market availability of Loctite Stycast UV 7998, the latest formulation in the company's line of award-winning conformal coatings. Uniting sustainability, UL 94 V-0 certification, and cost efficiency, the new Henkel material answers the market need for excellent electronics protection at a competitive price-performance ratio. The material is well-suited for many applications, including home appliances, lighting, consumer electronics, and automotive, notes a press communicate from the company.

cost, and performance while fulfilling challenging certification standards is a difficult balance to strike," says Henkel Global Innovation Project Manager Oliver Steinbach, explaining the engineering achievement of the new material. "The aim was to engineer a next-generation conformal coating that delivers best-in-class performance, meets the highest sustainability criteria, and optimizes process efficiency. Loctite Stycast UV 7998 has achieved these objectives, bringing the electronics market a conformal coating solution



Conformal coatings are thin polymeric materials applied to PCBs and components that require a shield against moisture, dust, chemicals, and other environmental conditions.

Conformal coatings are thin polymeric materials applied to PCBs and components and are ubiquitous for electronics applications that require a shield against moisture, dust, chemicals, and other environmental conditions that may limit performance and reduce product lifespan. Loctite Stycast 7998 provides this vital protection while lowering costs and enhancing safety, health, and the environment with its solvent-free composition.

"Meeting the demands of energy efficiency, mass production, operator safety,

that instills product protection confidence and demonstrates Henkel's purpose-driven innovation."

On the processability and performance front, Loctite Stycast UV 7998 rises above. The material is easily applied, offering self-leveling across the PCB assembly, excellent wetting, and uniform coverage with no voiding. Once coated, curing takes place in seconds with energy-efficient UV light followed by a secondary moisture cure, after which the PCB is shielded from harsh environmental conditions and contaminants.

Diamond Vogel introduces Peridium® T82 with EdgeSpan™ Technology for one-coat OEM edge protection

Diamond Vogel (diamondvogel.com) has introduced Peridium® T82, a high-edge coverage powder coating with EdgeSpan™ Technology. The system addresses one of the most persistent finishing challenges: sharp edges on laser-cut steel, which often fail first. Peridium T82 delivers reliable edge protection in a single coat and supports OEM production requirements with durable performance, notes a press release from the company.

much more controlled on a micro level. It encourages formation of bonds over that edge before the coating wants to move away," said Brad Kruse, R&D Chemist.

Peridium T82 meets strict edge-coverage requirements without a primer. The system reduces steps, lowers risk, and supports consistent application for OEMs and smaller shops. "This product fills that need for an enhanced-performance, direct-to-metal coating. It consolidates performance



Peridium T82 delivers reliable edge protection in a single coat and supports OEM production requirements with durable performance.

"In the industrial market, large OEMs have moved to laser cutting. Those edges are very sharp and need coverage, which older powder coatings were not providing," said Danielle Dykstra, Business Development and Technical Services Manager.

EdgeSpan Technology controls cure at a microscopic level. The coating forms bonds over the edge before film movement exposes bare metal. "With the T82 EdgeSpan system, it is

into one layer," said Dykstra.

"This system helps OEMs build better, faster, and with more confidence. It enables efficiency and long-term value," said Bre McKibben, Strategic Product Manager.

Peridium T82 passed four years of ISO testing, including salt-spray and cyclical-corrosion evaluations.

"OEM specs are strict. We do not just meet the spec. We try to surpass it," said Kruse.

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The new WIWA ELAN series' electric airless technology sets the standard for coatings of the future

With the new WIWA ELAN series, WIWA Wilhelm Wagner GmbH & Co. KG (wiwa.de) is setting a milestone in electric airless coating technology. The portfolio expansion includes the ELAN M and ELAN XL models and will soon be supplemented by the affordable ELAN C series, notes a press release from the company.



At the heart of the new ELAN generation is the fully electric motor, which complements the pneumatic product portfolio and offers significant advantages for industrial use.

At the heart of the new ELAN generation is the fully electric motor, which complements the pneumatic product portfolio and offers significant advantages for industrial use. The brushless electric motor ensures high torque and a long service life and allows precise control of pressure and flow, resulting in constant spray pressures and uniform surfaces. The modern electric drive technology also reduces noise and energy consumption, a clear advantage in working environments where efficiency and noise emissions play a major role.

The ELAN M is the compact high-performance device in the series. Thanks to large material passages and perfectly coordinated valves, materials for fire protection coatings, sealants, or fillers can also be applied without any problems. The integrated

electronic pressure control system regulates the motor speed and enables precise spraying performance even in low pressure ranges while reducing overspray.

In view of increasing productivity requirements, the ELAN XL shows its strengths especially in larger projects. The fully electric XL version

provides an efficient solution for high-volume delivery and is particularly suitable for demanding, high-viscosity coating materials.

Both devices also score points with their full compatibility with proven WIWA accessories. Material hoses, filters, guns, and other

components can also be used with the ELAN M and ELAN XL without any problems, the press release concludes.

RoboTwin – intuitive training of painting robots without programming knowledge

RoboTwin from REITER GmbH + Co. KG Oberflächentechnik (reiter-offt.de) simplifies the automation of painting processes through an innovative "teach-by-demonstration" method. Instead of complex robot programming, the desired painting sequence is performed manually once with the spray gun, notes a press release from the company. RoboTwin uses sensors to record the movement paths, recognizes the spraying process, and automatically

PosiTector 200: for non-metallic substrates

In corrosion prevention, precision is protection. From pipelines and bridges to automotive and marine structures, Khushboo Scientific's range of coating thickness gauges ensures coatings are applied correctly, strengthening durability, minimizing risk, and safeguarding investments. Too thin a coating and the surface is exposed to rust and degradation; too thick and the coating risks cracking, poor adhesion, or unnecessary material costs. With models suited for every environment, these gauges stand as essential allies in the global battle against corrosion.

Khushboo Scientific, in partnership with DeFelsco, provides a complete portfolio of coating thickness gauges engineered to



The PosiTector 200 is designed for wood, concrete, fiberglass, plastic, polyurea, asphaltic, and neoprene, and it excels in measuring multi-layer coatings.

deliver accurate, non-destructive measurements across industries. Each model is tailored to specific applications, ensuring reliability in both field inspections and production lines.

One of the latest products offered is the PosiTector 200. Not all coatings are applied to metal. The PosiTector 200 is

designed for wood, concrete, fiberglass, plastic, polyurea, asphaltic, and neoprene, and it excels in measuring multi-layer coatings. It brings the same rugged design and full digital connectivity as the 6000, ensuring reliability where other gauges cannot operate, notes a product write-up from the company.

More details khushbooscientific.com

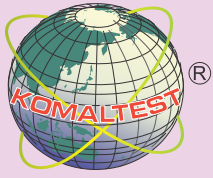
generates an executable robot program for all common manufacturers. There is no need for programming experts. Painters can create robot programs without any programming knowledge and edit them offline as needed. This significantly reduces setup times as well as personnel and external programming costs. Parallel

training of multiple robots is also possible. RoboTwin is designed as a plug-and-play system and is suitable for wet painting and powder coating.

Especially in the case of changing component geometries as well as small and medium batch sizes, the system offers an economical and flexible solution for automation. Robotics can thus be used efficiently even for individual parts and small series. The scope of delivery includes a RoboTwin unit with carrying strap, a sensor unit with spray detection, the mounting on the spray gun, a charger, and the RoboTwin app. Optional extras include ATEX Zone 22, line tracking, a WiFi module, and on-site training.



RoboTwin uses sensors to record the movement paths, recognizes the spraying process, and automatically generates an executable robot program for all common manufacturers.



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AkzoNobel Powder Coatings highlights its top sustainability performers with Eco+ products

AkzoNobel Powder Coatings has launched the Eco+ products, a dedicated portfolio that brings together its most sustainable powder coating solutions from the Interpon and Resicoat portfolios under one clear designation, bringing clarity, confidence and proof to sustainable coating choices.



The Eco+ portfolio focuses on powder coatings that deliver measurable sustainability improvements alongside clear performance benefits in defined areas.

The Eco+ portfolio focuses on powder coatings that deliver measurable sustainability improvements alongside clear performance benefits in defined areas. These products reduce energy use, waste and carbon emissions, extend product lifespan or improve process efficiency, helping customers improve environmental impact while also strengthening operational performance, notes a press release from the company.

Products earn Eco+ status based on measurable sustainability performance, assessed against a clear, data-backed set of criteria that verify improvement in one or more defined sustainability areas.

Every Eco+ product qualifies based on at least one of six defined sustainability benefits:

- Reduced energy consumption through lower curing temperatures and faster curing cycles;
- Increased productivity with single-layer systems, fewer process steps and less rework;
- Less waste during manufacturing and application, including reduced leftover powder;
- Reduced material consumption through right-first-time performance and optimized coverage;
- Longer-lasting performance,

with durable and super-durable coatings that protect assets for decades; and

- Reduced carbon footprint, enabled by smarter raw material choices, including bio-attributed resins.

"Powder coatings are already one of the most sustainable coating technologies available," said Jorrit van Rijn, Marketing Director of AkzoNobel Powder Coatings. "With Eco+, we make it easier for customers to see where sustainability genuinely adds value. Whether it's lower energy use, greater efficiency or longer service life, Eco+ highlights the powder coating solutions that help customers reduce their impact while improving how their operations perform. That's what value-driven sustainability means to us."

The Eco+ portfolio covers a wide range of industries and

PPG introduces PPG AQUACRON WSP shop primers series for structural steel

PPG (ppg.com/industrial-coatings) has announced the launch of PPG AQUACRON® Waterborne Shop Primers (WSP) for structural steel. This breakthrough technology is suitable for all climates and combines rapid curing with a smooth finish and low volatile organic compounds (VOCs), delivering a balance of properties unmatched in existing waterborne primers, notes a press release from the company.

adaptable across environmental conditions is a benchmark achievement in waterborne primers," said Brian Smith, PPG business manager, liquid coatings, Industrial Coatings.

Existing waterborne primers are slow drying, requiring 12-24 hours to fully cure, and prone to surface defects. With PPG Aquacron WSP primers, steel fabricators have a water-based, sustainably



PPG Aquacron WSP primers feature a water-resistant layer that minimizes the need for sandblasting and surface preparation before top-coat application and installation, leading to substantial savings in time, labor and cost.

PPG Aquacron WSP primers are factory applied to protect steel beams, purlins, joists and framing against flash rust and corrosion that may occur on job sites, especially when materials are stored outdoors. They feature a water-resistant layer that minimizes the need for sandblasting and surface preparation before top-coat application and installation, leading to substantial savings in time, labor and cost.

"Developing a lower-VOC, faster-drying formulation with a smoother finish and

advantaged solution that delivers a smoother finish and cures in just two minutes under standard heat. This represents an opportunity for high-volume operators to accelerate throughput

and reduce space needed for drying and curing parts before shipping.

PPG Aquacron WSP primers have VOC emissions similar to those found in standard residential-grade paints and are stable under varying temperatures and humidity. These features help steel fabricators comply with stringent emissions regulations and streamline product specification and sourcing by eliminating the need for climate-specific primers, the press release concludes.

applications, from architecture and automotive to appliances, functional and general industrial use, delivering benefits such as low-

temperature curing, high durability, extended lifetime through enhanced corrosion protection and improved material efficiency.

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Improved paint finish, thanks to an innovative rotating nozzle

New nozzle technology from acp systems AG for snow jet cleaning in automated paint shops

Snow-jet cleaning has established itself as the state of the art when it comes to coating plastic add-on parts. To improve cleaning quality and thus the paint finish, a company specializing in interior and exterior parts for the automotive industry has optimized the snow-jet cleaning machines that are integrated into its automated paint shops by replacing the standard nozzles with an innovative rotary system.

The takeover by Aequita SE & Co. KGaA around a year ago has set the course for the future of the long-standing KTX GmbH, as well as for further growth. Based in Weissenburg, Bavaria, with branches in Solingen, Serbia and the USA, the company specializes in innovative interior and exterior parts for the automotive industry, covering the entire production chain from design right through to final assembly. Its high-quality trim solutions are manufactured on injection molding machines with a clamping force of 80 to 3,200 tons. One of the company's core competencies, which it also offers as a service at its headquarters, is subsequently painting the parts.

Focus on continuous process improvement

The parts are coated in paint shops from Venjakob Maschinenbau GmbH, which feature integrated CO₂ snow-jet cleaning systems. "It is

essential that surfaces are absolutely clean, especially if parts are to be painted with a high-gloss piano black finish. The tiniest dust particles or fibers are enough to cause surface irregularities and thus rejects," explains David Heidrich, Head of Paint Shop at KTX in Weissenburg. "We are therefore always interested in solutions that allow us to further optimize our processes." One such opportunity presented itself when the head of department met a former colleague from technical school. He was now working as an application engineer at acp systems AG, a global technology leader with its quattroClean snow-jet technology. The technology uses liquid, recycled carbon dioxide as a cleaning medium, which is guided through a wear-free, two-substance ring nozzle. The carbon dioxide expands on exiting the nozzle to form fine CO₂ snow, which is then bundled by a separate jacket jet of compressed air and accelerated to supersonic speed. On impacting on the surface to be cleaned, the jet of snow and compressed air develops a combination of thermal, mechanical, solvent and sublimation effects. The interaction of these four mechanisms of action remove particulate contamination right down to the submicrometer range and also filmic contamination reliably and reproducibly.



PHOTOS: KTX GMBH

When painting interior parts for so-called A-areas, clean surfaces are a must, as even the smallest dust particles and fibers cause surface irregularities.

Since the crystalline carbon dioxide sublimates completely during the process, the cleaned surfaces are dry and free of residues.

Improved cleaning results proven in tests

In order to compare the performance of acp's technology with that previously used, tests were arranged at KTX. Initially, an array equipped with six nozzles was implemented, which was manually guided over the parts outside the feed section of the paint shop. "The paint finish was definitely better on the parts cleaned manually with the nozzle array," reports Thomas Leimeister, Head of Surface Development at KTX. "We therefore decided to work with acp to further develop this solution for integration into our paint shop." It was important to maintain the reliability of the existing

cleaning module from Venjakob and to integrate the new cleaning unit into the paint shop's existing control system, which was made possible by the excellent cooperation between the companies involved.

Rotating nozzle as a solution

The new rotating system developed by acp proved to be the ideal solution for the task at KTX. This nozzle technology makes it possible to remove loose, particulate contaminants from surfaces effectively with lower carbon dioxide and compressed air consumption. The nozzles are available with a fixed 45° spray angle, and an adjustable spray angle via adapters. The rotary unit can be fitted with different wings. "Through trials with a manually guided jet unit featuring three rotating nozzles, acp has demonstrated that equally good or



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even better cleaning results can be achieved,” notes David Heidrich.

Integration of a unit with three rotary nozzles

The unit was integrated into the KTX cleaning module using a four-wing rotary unit equipped with three nozzles. The spray angle can be adjusted to suit the specific part. The rotary unit is mounted on the linear system of the cleaning module, which required some minor conversion work at the time. “We brought Venjakob on board to synchronize the control technology of the new jet unit with the paint shop,”

explains Thomas Leimeister. “The cooperation between the two companies and with us was excellent and characterized by a spirit of partnership. All the challenges that arose during the changeover were mastered smoothly,” reports his colleague. During the conversion, which was carried out as a pilot project, some optimizations and fine-tuning of the spray angles were necessary after commissioning in order to achieve optimum cleaning results.

Technical and economic success

KTX has been using the new cleaning solution in series



The use of the new rotary nozzle system for cleaning before painting ensures improved process quality and process stability for the high-quality trim solutions manufactured by injection molding.



The new cleaning solution with rotating nozzles provides added value from both the technical and commercial perspective.

production since August 2024. The company is extremely satisfied with the results and plans to equip further paint shops with the cleaning solution. “Technically, we have been able to significantly improve our production process, including process stability. We are also gaining added value from a commercial perspective,” notes David Heidrich. “And last but not least, we have learned a lot from this project, which means that further conversions can be carried out with less effort,” adds Thomas Leimeister.

About acp systems

The solutions from acp systems AG make the company a global technology leader in advanced clean production, including process

automation and system integration. The company was founded in 1997 and has its headquarters in Germany. Its core technologies include resource-saving quattroClean snow-jet cleaning, high-precision microdosing and smart handling solutions, for example, for flexible materials and foils. acp assists companies from the semiconductor, electronics, automotive, precision optics, medical device and pharmaceutical industries and others, in developing, planning, designing and integrating highly automated and sustainable production processes.

More information: www.acp-systems.com

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UTOP Paints: Strengthening their presence in Southeast Asia

UTOP Paints is progressively building a global supply and service network to better support shipowners and operators worldwide

UTOP Paints is a specialized manufacturer of marine, industrial, and aerospace coatings, with over 30 years of experience in the marine sector.

With more than three decades of expertise in shipbuilding and ship maintenance coatings, UTOP has established long-term cooperation with major shipowners and leading shipyards across China. Their products are widely applied in ballast tanks, underwater hulls, cargo holds, and various marine structures, supporting vessels operating in demanding service environments.

In recent years, UTOP Paints has accelerated its international expansion strategy. They are progressively building a global supply and service network to better support shipowners and operators

worldwide.

To strengthen their presence in Southeast Asia, UTOP Paints has established a Singapore subsidiary, serving as a regional hub to provide technical support and commercial services to shipowners and shipyards across ASEAN.

In addition, they work with established partners in Panama, Malaysia, and Indonesia, ensuring local availability of marine coating products and technical assistance in key maritime regions.

Their strategic focus is to combine strong manufacturing capability, technical expertise, and localized service support to deliver reliable and compliant coating solutions for the global marine industry.

Mr Liang Youlyu, General Manager, UTOP Singapore Subsidiary in a chat with C&ACER.

What are the key factors influencing the selection of marine coating systems?

The selection of marine coating systems is increasingly driven by a combination of operational, regulatory, and economic considerations.

First, the vessel's operational profile plays a critical role.

Factors such as vessel speed, trading routes, idle time, and cargo type determine the type of protective system required. For example, vessels operating in tropical waters with long idle periods face higher fouling pressure, which influences antifouling system selection.

Second, regulatory compliance has become central to decision-making. IMO regulations, PSPC standards for ballast tanks, and VOC restrictions are no longer secondary considerations, they are primary drivers.

Third, lifecycle cost is now more important than initial cost. Shipowners are focusing

on long-term durability, maintenance cycles, and fuel efficiency performance. We see customers placing greater emphasis on total asset protection and operational reliability, rather than simply coating thickness or price per litre.

What are the common causes of coating failure in marine environments?

Coating failure typically stems from three primary causes: surface preparation issues, application control, and operational damage.

Inadequate surface preparation, especially improper blasting or salt contamination, is still the most common root



Mr Liang Youlyu, General Manager, UTOP Singapore Subsidiary

PHOTOS: UTOP PAINTS



Technical service engineer conducting coating thickness measurement and inspections to ensure compliance with protective coating specifications and durability requirements.



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Laboratory professionals conduct analytical testing and instrument calibration to ensure product quality and performance standards.



Technical service team performing on-site equipment inspection and quality verification to ensure operational safety and coating performance standards.

cause. Even the most advanced coating cannot compensate for poor substrate conditions.

Application-related failures may result from incorrect film thickness, poor curing conditions, or insufficient environmental monitoring.

Operational factors such as mechanical abrasion, cargo impact, and chemical exposure also contribute to degradation.

How do you handle unexpected problems during marine coating application?

Unexpected issues must be managed systematically.

The first step is to halt the application and assess the environmental conditions, temperature, humidity, dew point, and substrate quality. Root cause identification is essential before corrective action.

Clear communication with shipowners, inspectors, and applicators ensures transparency. Documentation through QA/QC helps prevent disputes and maintain compliance.

Technical support plays a critical role and it's an important value chain of



The UTOP office building

UTOP. UTOP provides on-site technical service to guide coating application aligned with product specifications.

Explain the importance of environmental regulations in the selection and application of marine coatings.

Environmental regulations have fundamentally reshaped the marine coatings sector.

Global VOC restrictions, and regional environmental controls are accelerating the shift toward lower-emission, high-solids systems.

Additionally, sustainability

goals linked to CII and decarbonization strategies are driving demand for coatings that improve fuel efficiency and reduce drag.

In the Asia-Pacific region, regulatory enforcement is becoming increasingly stringent, particularly in China and Singapore. Compliance is no longer optional; it is essential for market access.

What are the key properties of a high-performance marine coating?

A high-performance marine coating must combine:

- ☐ Excellent corrosion resistance
- ☐ Strong adhesion to steel substrates
- ☐ Chemical resistance
- ☐ Mechanical durability
- ☐ Long-term film integrity

For cargo tank coatings, resistance to aggressive chemicals is critical. For ballast tanks, compliance with PSPC standards ensures longevity under harsh cyclic conditions.

Where do you see the marine coatings sector

BYK Additives

Protection with high impact



Hot summers, heavy rain, and cold winters make long-lasting corrosion protection challenging. As infrastructure projects increase and the demand for sustainable solutions grows, high-filled and high-built coating systems are crucial. BYK's additive building blocks – featuring wetting and dispersing additives to reduce mill base viscosity, rheology additives to adjust sag resistance, and defoamers to prevent imperfections – ensure flawless corrosion protection even under challenging conditions.

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Main entrance of the UTOP headquarters

developing within the Asia-Pacific region, say a few years down the line?

Asia-Pacific remains the global center of shipbuilding and dry dock. China, South Korea, and Japan dominate newbuilding, ship repair and dry docking

Growth will be driven by:

- ☐ Offshore renewable energy projects
- ☐ Increased fleet size in ASEAN
- ☐ Stricter environmental regulations

UTOP Paints is actively

expanding its presence in the ASEAN region to support this growth.

Describe your experience with different types of marine environments and their impact on coatings.

Marine coatings perform across diverse exposure conditions:

- ☐ Submerged hull environments
- ☐ Ballast tanks
- ☐ Cargo tanks
- ☐ Splash zones
- ☐ Marine atmospheric exposure

In tropical Southeast Asia,

high humidity and elevated temperatures increase corrosion rates and biological fouling pressure.

Understanding these environmental variations is critical when recommending coating systems.

How do you address challenges related to applying coatings in harsh weather conditions?

Application in tropical climates requires strict environmental control.

Monitoring dew point, humidity, and steel temperature is essential. Temporary enclosures and dehumidification systems are often necessary to maintain application standards.

Proper planning during dry dock scheduling helps avoid compromised curing conditions.

UTOP works closely with shipyards to ensure environmental parameters are

controlled to protect long-term performance.

What are the industry's and your company's latest advancements in marine coating technology, and how does it help the sector?

The industry is advancing in several key areas:

- ☐ Biocide-free antifouling, foul-release systems
- ☐ High-solids, low-VOC epoxies
- ☐ Digital inspection and predictive maintenance

At UTOP, we continue to invest in enhanced chemical resistance, extended service life, and reduced maintenance frequency.

At the just concluded Asia Pacific Maritime 2026 exhibition, we showcased our latest marine coating solutions tailored for the Asia-Pacific market, particularly systems designed for tropical trading routes and long idle resistance.

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How Translite's Ringlock scaffolding system supports India's mega infrastructure projects and construction sites

Among the modular systems widely adopted in modern construction, Ringlock scaffolding has emerged as a dependable solution for complex and high-load environments

Mr Mayank Pathak, Managing Director, Translite Scaffolding Ltd.

India's infrastructure landscape has transformed rapidly in the last decade. Metro corridors, expressways, elevated highways, industrial campuses, and high-capacity transportation projects are being built across the country. Behind these large structures lies an equally important support system that makes execution possible. Scaffolding plays a critical role in ensuring that construction progresses safely, efficiently, and within timeline.

Among the modular systems widely adopted in modern construction, Ringlock scaffolding has emerged as a dependable solution for complex and high-load environments. Translite Scaffolding Ltd. has positioned its Ringlock system as part of its broader effort to supply engineered scaffolding

solutions for infrastructure and industrial projects across India and select international markets.

The growing need for engineered scaffolding in mega projects

Mega infrastructure projects come with unique challenges. Elevated piers, heavy girders, high-rise industrial structures, commercial and residential buildings and continuous work fronts require temporary support systems that are strong, precise, and adaptable. Any instability or delay in scaffolding setup can directly affect overall project timelines.

Traditional scaffolding setups often require more adjustments on site, longer assembly time, and increased supervision. In contrast, modular Ringlock systems are



Mr Mayank Pathak, Managing Director, Translite Scaffolding Ltd.

designed to reduce uncertainty through predefined connection points and standardized fabrication. When every component is manufactured to consistent specifications, assembly becomes predictable and repeatable, which is critical in high-pressure construction environments.

Translite's Ringlock scaffolding is manufactured using high-quality mild steel and follows standards such as ISO 9001:2015, IS 1161, and IS 2062. These compliance benchmarks ensure uniform material strength and dimensional accuracy, supporting reliability across projects.

Structural precision and load distribution

Ringlock scaffolding is known for its circular rosette design, which allows multiple

horizontal and diagonal members to connect at fixed intervals. Translite's system uses 48.30 mm outer diameter tubes with 500 mm ring spacing, a configuration that supports even load distribution and structural consistency.

This dimensional standardization offers several advantages:

- ☐ Balanced load transfer through evenly spaced nodes
- ☐ Reduced risk of misalignment during erection
- ☐ Better stability for elevated or heavy-duty support
- ☐ Consistency across repetitive structural bays

For mega projects involving metro viaducts, pier caps, and elevated road sections, this structural predictability becomes essential. When scaffolding behaves as



Translite's Ringlock scaffolding has emerged as a dependable solution for complex and high-load environments.



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expected under load, site engineers can focus on core construction work without constant adjustments to access systems.

Speed of assembly and project efficiency

Time pressure is one of the defining features of modern infrastructure development. Project sequences are tightly coordinated, and multiple contractors often operate simultaneously across different work zones. In such conditions, the ability to erect and dismantle scaffolding quickly has a direct impact on efficiency.

Ringlock systems are modular by design. Components fit together through fixed connection points, reducing the need for complex alignment during installation. This modularity minimizes labor-intensive corrections

and accelerates setup time compared to loosely assembled conventional systems.

Additionally, because components are standardized and reusable, contractors can redeploy materials across different sections of the project. This reuse capability improves overall equipment utilization, contributing to cost efficiency across large construction cycles.

Safety as an embedded advantage

Safety performance in infrastructure projects depends not only on regulations but also on the reliability of structural systems. Ringlock scaffolding's rigid connection geometry supports stable platforms for workers operating at height. Uniform tube diameter and fixed spacing reduce structural inconsistencies that



Translite Scaffolding Ltd. operates from its manufacturing base in Uttar Pradesh and supplies scaffolding, formwork systems, and heavy steel fabrication solutions for infrastructure and industrial projects.

might otherwise introduce weak points.

Translite also supplies associated components such as walkway planks, base jacks, U heads, couplers, and safety accessories, ensuring that access systems are not treated as isolated elements but as integrated platforms.

For projects involving elevated metros or expressway construction, where workers operate several meters above ground level, this structural stability contributes directly to safer working environments.

Adaptability across diverse sectors

One of the strengths of Ringlock scaffolding is its adaptability. Large infrastructure projects rarely follow identical configurations. Heights vary, load conditions change, and site layouts evolve as work progresses.

Translite manufactures Ringlock scaffolding in multiple height options ranging from 0.50 meters to 3.00 meters, with thickness variations as per client requirement. This range allows configurations to be tailored to specific structural needs.

Beyond metro and highway projects, Translite's scaffolding systems have been used across industrial and institutional environments such as manufacturing facilities and large campuses. The adaptability of Ringlock makes it suitable for diverse sectors, including infrastructure, housing, and heavy industry.

Supporting India's expanding infrastructure portfolio

India's infrastructure pipeline includes metro projects in cities such as Delhi, Indore, Patna, and Pune, as well as major expressways including Dwarka Expressway and Ganga Expressway. Translite has supplied scaffolding and formwork systems for projects of this nature, contributing to the temporary structural support required during construction phases.

In addition, Translite's involvement in the Mumbai-Ahmedabad High-Speed Rail Project highlights the use of precision-oriented scaffolding in projects demanding exact structural alignment.

Industrial projects such as manufacturing plants and corporate campuses have



Ringlock systems are modular by design. Components fit together through fixed connection points, reducing the need for complex alignment during installation.

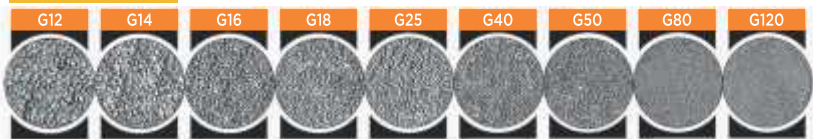


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also relied on engineered scaffolding platforms for staging and execution. These varied applications demonstrate how Ringlock scaffolding supports different stages of India's infrastructure expansion.

Cost effectiveness through reusability and durability

Cost efficiency in scaffolding does not only depend on purchase price. It depends on how many times components can be reused, how quickly they can be assembled, and how reliably they perform under different site conditions.

Translite fabricates Ringlock systems using durable mild steel designed for repeated project cycles. When scaffolding can be redeployed across multiple worksites, contractors reduce material wastage and improve

cost allocation across long-term infrastructure programs.

Durability also means fewer replacements and lower risk of downtime caused by component failure. Over extended project timelines, this reliability contributes to predictable cost management.

Company profile and outreach

Translite Scaffolding Ltd. operates from its manufacturing base in Uttar Pradesh and supplies scaffolding, formwork systems, and heavy steel fabrication solutions for infrastructure and industrial projects. Its offerings include Cuplock, Ringlock, H Frame, and Kwik Stage scaffolding systems, along with pier shuttering, girder shutters, and heavy steel structures.

In addition to serving projects across India, Translite has extended its supply to GCC nations such as the UAE and Saudi Arabia. This international outreach reflects alignment with globally recognized quality standards and export-ready manufacturing capabilities.

The company also provides design of scaffolding systems, formwork layouts, load calculations, erection support, and safety-focused documentation, integrating engineering planning into the overall scaffolding solution.

Future outlook for Ringlock in mega construction

As infrastructure projects grow in complexity and scale, modular systems like Ringlock are expected to play an increasingly central role. Standardization, dimensional

precision, and predictable load performance align well with the demands of metro corridors, elevated roads, industrial expansion, and high-speed rail initiatives.

While construction methods continue to evolve, the need for reliable temporary support systems remains constant. Ringlock scaffolding, when manufactured with consistent standards and integrated with project planning, supports the broader objective of executing infrastructure safely and efficiently.

For companies such as Translite Scaffolding Ltd., the focus remains on maintaining fabrication quality, engineering support, and adaptable system design to meet the ongoing requirements of India's infrastructure growth.

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As per the new requirements all labs under NABL, must have a Registered Entity. As a result SECC a proprietorship company needed to be changed to a Pvt. Ltd. company. With effect from New Financial Year starting from April 1, 2024, SECC is renamed as Khanna Paint Testing Laboratory (OPC) Pvt. Ltd. We have now 54 different paint standards approved by NABL. These 54 standards include IS, ASTM, DIN, ISO, NACE, and AWWA standards. Details can be see on our website which is now www.kptllab.com The lab has the most modern, fully calibrated equipment with well-educated and trained staff.



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3. Physical Vapour Deposition (PVD)
4. Chemical Conversion Coatings
5. Laser deposition Method

Paint Coatings

- Conventional Coatings
- High Performance Coatings
- Waterborne Coatings
- Functional Coatings
- Nano Coatings
- Smart Coatings
- Green Coatings

Metallic Coatings

1. Hot Dip Coatings :
 - Galvanized,
 - Galvalume and
 - Zn-Mg-Al alloy coatings
2. Thermal Spray Coatings

- ☐ Paint Failure Analysis and remedial measures
- ☐ Paint Scheme recommendation
- ☐ Site Selection and Specifications for Corrosion Protection for Solar Plants

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The global wind turbine coatings market is witnessing steady expansion as the renewable energy sector gains momentum worldwide

Wind turbine coatings protect blades and structures from harsh environmental conditions like rain erosion, UV radiation, and saltwater corrosion, enhancing lifespan and efficiency

The 2026 Gulf conflict has intensified the scope for alternative fuels, acting as a catalyst for accelerating green energy transitions. Rising oil prices (~\$100/barrel) and disruptions at the Strait of Hormuz are driving an urgent, long-term shift toward renewable energy sources, including wind, solar, hydropower, and nuclear energy.

Wind energy is a clean, renewable and increasingly cost-effective power source that converts the kinetic energy of moving air into electricity using turbines.

Between 2010 and 2024, onshore wind costs fell by 70%, with typical turbine capacities growing to 3 – 4 MW onshore and 8 – 12 MW offshore, making it a key component of global decarbonization efforts.

As a renewable source, wind turbines do not emit greenhouse gases or pollution during operation and require no water for cooling.

The industry is moving towards larger, more powerful turbines and employing advanced Artificial Intelligence (AI) and Internet of Things (IoT) solutions for predictive maintenance to extend lifespans beyond 25 years.

The global wind turbine coatings market is witnessing steady expansion as the renewable energy sector gains momentum worldwide. According to the latest study by Persistence Market Research, the market is

projected to grow from US\$ 2.3 billion in 2026 to US\$ 4.1 billion by 2033, registering a robust CAGR of 8.7% during the forecast period. This growth is largely driven by increasing investments in wind energy projects, technological advancements in coating materials, and the need for enhanced durability and performance of wind turbine components in harsh environmental conditions. Wind turbine coatings protect blades and structures from harsh environmental conditions like rain erosion, UV radiation, and saltwater corrosion, enhancing lifespan and efficiency.

However, there are challenges like lead-edge erosion, where high rotational speeds, especially on offshore turbines, cause severe erosion. Then there are environmental constraints, as coatings must withstand intense UV and extreme temperatures. These coatings also face constraints and challenges in application, needing, for example, precise, specialized applications.

One of the primary trends shaping the market is the surging demand for renewable energy infrastructure. Governments across the globe are setting ambitious carbon neutrality targets, encouraging the deployment of wind energy systems. This has significantly increased the installation of both onshore and offshore wind turbines, directly boosting the demand for high-performance coatings



Governments across the globe are setting ambitious carbon neutrality targets, encouraging the deployment of wind energy systems.

that protect turbine blades, towers, and nacelles from corrosion, UV radiation, and erosion.

Another important factor is the rising focus on durability and lifecycle extension. Wind turbines are often exposed to extreme weather conditions, including high winds, saltwater in offshore installations, and temperature fluctuations. Advanced coating solutions, particularly polyurethane and fluoropolymer coatings, are gaining traction due to their superior resistance to wear and environmental degradation, thereby reducing maintenance costs and extending the operational life of turbines.

The market is also benefiting from technological advancements in coating formulations. Manufacturers are investing in research and development to create coatings with enhanced properties such as self-healing capabilities,

improved adhesion, and reduced environmental impact. Water-based and low-VOC (volatile organic compound) coatings are increasingly preferred as sustainability becomes a critical consideration for industry stakeholders.

A notable trend is the growth of offshore wind energy projects. Offshore installations require specialized coatings due to exposure to saltwater, humidity, and biofouling. This segment is expected to witness faster growth compared to onshore applications, as countries expand offshore wind farms to harness stronger and more consistent wind resources.

Another emerging trend is the increasing adoption of maintenance and repair (MRO) coatings. As the global installed base of wind turbines ages, the need for regular maintenance and refurbishment rises. Repair coatings play a crucial role in

restoring blade integrity and ensuring optimal performance, creating a steady revenue stream within the market.

The industry is also experiencing regional diversification and investment growth. While Europe and North America remain mature markets, regions such as East Asia and South Asia & Oceania are rapidly expanding due to favorable government policies, increasing energy demand, and large-scale renewable energy projects. Europe leads wind turbine coatings with ~35% share in 2025, driven by a large offshore fleet, 23.2 GW auctions, and major OEMs like Hempel, Jotun, and AkzoNobel.

India has the world's fourth largest installed wind power capacity, reaching approximately 54.6 GW by early 2026 after a record 6.3 GW addition in 2025, marking an 85% increase over the previous year surpassing Germany and the USA to become the third largest market for new installations.

Primarily located in southern and western states, the sector is supported by a strong domestic manufacturing base, with an estimated onshore potential of over 695 GW (at 120m height).

Emerging markets are expected to offer lucrative opportunities for coating manufacturers in the coming years.

In addition, automation and advanced application techniques are transforming the market landscape. Spray coating and powder coating methods are gaining popularity due to their efficiency, uniform coverage, and reduced material wastage. These techniques not only improve coating performance but also lower operational costs for manufacturers and

service providers.

Despite strong growth prospects, the market faces challenges such as fluctuating raw material prices and stringent environmental regulations. However, ongoing innovation and strategic collaborations between coating manufacturers and wind turbine producers are expected to mitigate these challenges and support long-term growth.

AkzoNobel speeds up innovation with world-first testing facility for wind turbine blades

The world's first purpose-built wind turbine blade testing facility – which is capable of running simulations at half the speed of sound – has been opened by AkzoNobel at its Felling plant in the UK.

The multi-million euro investment will support the development of the company's International® protective coatings brand, which supplies wind farms around the globe.

Researchers at the new facility – which can simulate harsh weather conditions from around the world – will be able to triple the number of rain erosion tests that can be run every week. At full speed, the so-called “helicopter” test is capable of running at 176 meters per second.

“Today marks an exciting new chapter in our long history of supporting sustainable innovation and product development,” says Ralph Slikkerveer, R&D Director of AkzoNobel's Marine and Protective Coatings business.

“Bringing this type of world class testing in-house – where we can immediately generate the data, analyze results and prolong testing periods – will transform our contribution to innovation in the wind energy sector. As one of the market



The world's first purpose-built wind turbine blade testing facility – which is capable of running simulations at half the speed of sound – has been opened by AkzoNobel at its Felling plant in the UK.

leaders, we'll be able to participate in a more meaningful way in lifetime prediction discussions on protective coating systems for wind turbine blades.”

To support the ultra-high speed tests, the new facility has been fitted with a 1,000-liter water recycling tank. During testing, the water flow rates – and both the water and air temperatures – can be adjusted as required.

“The protective coatings we'll be testing will help to future-proof our customers' blades so they can withstand the most extreme weather conditions,” adds Slikkerveer. “We'll now be able to perform more cost-effective and accelerated testing on new products, offering the best possible solutions for our customers at a time when global investment in wind projects continues to grow.

“It's further proof that AkzoNobel is setting industry standards through sustainability-driven innovation by continuing to expand its game-changing portfolio of products and technologies.”

The Felling site has been manufacturing International products since 1904 and is firmly established as the brand's global hub for research and development.

Hempel launches its first leading edge protection coating for wind blades

Hempel, the leading coatings supplier to the wind energy industry, has launched the Hempablade Edge 171, a new coating for leading edge protection (LEP) on wind turbine rotor blades. With the highest rain erosion performance data on the market for a liquid LEP, and some of the lowest dry film thicknesses, Hempablade Edge 171 provides long-term protection against rain erosion, and reduces time and costs during application.

The leading edge of a wind turbine blade is exposed to extremely high airflow speeds, even exceeding 300kmh. At these speeds, impact from rain can cause significant coating erosion or even composite damage. In severe cases, the erosion may lead to a loss of aerodynamic performance and a 2-3% drop in Annual Energy Production. This loss of performance and need for maintenance makes leading edge erosion one of the wind industry's most significant maintenance costs and performance challenges. In the European offshore wind energy sector alone, this equates to a loss in productivity of around EUR 56-75 million a year.

Hempablade Edge 171 helps

PHOTO: HEMPEL



Hempablade Edge 171 is one of the simplest LEP solutions on the market to apply, yet able to withstand the toughest environmental conditions.

wind turbine operators and applicators overcome these issues, by protecting the leading edge from rain erosion, as Lars Rindom Jensen, Head of Solutions for Wind Blades, explains: “Hempablade Edge 171 is one of the simplest LEP solutions on the market to apply, yet able to withstand the toughest environmental conditions. It provides exceptional protection against rain erosion and composite damages. This extends the interval between maintenance and repairs, giving operators more uptime and lower maintenance costs.”

Importantly for service providers, Hempablade Edge 171 requires some of the lowest dry film thickness on the market – just 150 microns

– and only needs one or two coats to ensure high protection. This increases application speeds, allowing customers to maintain more blades with the resources available.

“Hempablade Edge 171 has been developed as we listened to the industry challenges and requirements,” says Lars. “Its low thickness reduces LEP consumption, application time and

drying time, so applicators can work faster, whether they are onsite or in the blade production. It also has a wide application window – from 5-35°C – which means applicators can extend the maintenance season and working day. The result is higher productivity and less blade downtime during maintenance.”

Hempablade Edge 171 is Hempel's first LEP coating, developed using the company's in-house Rain Erosion Test (RET) facility. Since 2019, Hempel has used this facility to optimize the product development and LEP validation process – resulting in a best in class liquid LEP offering outstanding rain erosion protection. With the

addition of the coating to its portfolio, Hempel can now provide a full range of coatings to customers for every part of a wind turbine, from the foundation to the blade tip.

“Hempel is recognized as the industry's leading coatings supplier,” Lars explains. “We fully understand the challenges manufacturers, operators and maintenance companies face and are the only coatings company with an in-house RET facility. During development and validation, we put Hempablade Edge 171 through more than 400 exhaustive tests to ensure it delivers extremely valuable performance and application benefits.”

Arctura and Mankiewicz team up to launch the ArcGuide® coating for enhanced lightning protection

Arctura has signed a technology license agreement with Mankiewicz, LLC a global leader in high-quality coating solutions. This collaboration marks the introduction of the ArcGuide® coating, a novel lightning protection coating designed to significantly reduce the prevalence of lightning damage to wind turbines, a challenge that costs the wind energy industry well over \$100 million annually.

Lightning damage to wind turbines is one of the largest expenses for wind farm operators, and the problem is expected to worsen in the coming years as the manufacturers continue to build taller wind turbines and as lightning activity increases due to climate change. The ArcGuide® coating addresses this issue by enhancing the performance of the installed lightning protection system. It is a polyurethane-based topcoat that incorporates a proprietary mixture of discrete

elements. When applied to the surface of the wind turbine blade in the vicinity of the lightning receptors, the ArcGuide® coating facilitates the formation of ionized channels over the surface of the blades during the build-up of a lightning strike, providing a safe external path for lightning to reach the ground receptor and preventing damaging blade punctures. The ArcGuide® coating is being offered as part of the Mankiewicz BladeRep portfolio of high-performance coatings. Like other BladeRep products, ArcGuide® is easily applied and has superior durability, protecting the blade from even the harshest of elements and remaining effective strike after strike, making this a revolutionary new product for the wind energy industry.

“This blade coating breakthrough addresses one of the most important pain points felt by wind farm operators,” said Arctura CEO Neal Fine. “We are very pleased to be working alongside Mankiewicz, the top coatings manufacturer in the industry. Wind farm operators are more than ready for this product to be on the market and will be pleased to know that it is being offered by a trusted manufacturer known for its durable and effective coatings.”

Fabian Grimm, Managing Director of Mankiewicz' US operations in Charleston, South Carolina, said that his company is proud to partner with Arctura in developing and launching ArcGuide®, a groundbreaking lightning protection system for the wind industry. Our commitment to innovation and delivering high-quality coating solutions aligns perfectly with Arctura's vision. Together, we are addressing a critical challenge faced by wind farm operators by offering this new

PHOTO: 123RF



As the global installed base of wind turbines ages, the need for regular maintenance and refurbishment rises.

valuable functionality as part of our BladeRep product portfolio, and we look forward to making a lasting impact in the renewable energy sector.” The ArcGuide® coating is available for both new and existing turbine models.

Zeflnnov: Polykey launches a project for bio-based coatings for wind turbine blades

Polykey Polymers, recently launched Zeflnnov, a project focused on developing bio-based coatings for wind turbine blades using their polyol synthesis technology. The goal is to create coatings that are durable, circular, and less dependent on fossil resources, helping the wind energy industry move toward a more sustainable future.

Thanks to €1M in funding, Zeflnnov allows them to scale production of their coatings, expand the technical and scientific team, and upgrade facilities by 2027 to meet industrial demand. These resources are crucial to translate bio-based coatings from the lab to industrial applications. They are collaborating with leading research centers such as BERC-POLYMAT, CIDETEC, Biomagune, AIMPLAS, and the University of the Basque Country, strengthening Gipuzkoa as a hub for innovation and energy transition. Their expertise is essential to optimize the performance, durability, and sustainability of the coatings.

By developing bio-based coatings, Zeflnnov aims to support renewable energy growth, improve sustainability in manufacturing, and demonstrate the potential of circular and bio-based materials in real-world industrial applications.

Jotun joins EOLMED floating wind project in France

Jotun, a global leader in

protective coatings, has successfully secured a significant role in one of France's first floating offshore wind projects – EOLMED – marking another milestone in Jotun's mission to protect assets in the renewable energy industry through its technical coatings experience.

Located 18 kilometers off the coast of Gruissan in Southern France, the EOLMED floating offshore wind project is a 30 MW pilot farm owned by Eolmed, with floaters designed by BW Ideol and manufactured / assembled by MJP Archimed. Featuring three Vestas V164-10 MW turbines mounted on floating steel foundations, EOLMED is designed to produce nearly 110 million kWh annually – enough to power 50,000 homes – and paves the way for future large-scale offshore wind farms in Europe.

“This is an exciting project to be a part of. The floaters are massive steel structures measuring approximately 45m x 45m x 17m, including the demanding splash zone, which sets high demands to the coating on the external part,” said Xavier Pianezzi, Sales Manager for Energy and Infrastructure in Jotun.

The EOLMED project was completed in September 2025 at Port-La Nouvelle, Occitanie, and is part of France's strategy to develop floating offshore wind and reduce carbon emissions. It is expected to operate for 20 years and sets a benchmark for future commercial floating wind farms.

“As EOLMED represents a major step forward for floating offshore wind in France, we are reliant on good partnerships through all steps in the project. The collaboration with Jotun has been instrumental in meeting our technical and sustainability goals, ensuring



PHOTO: 128RF

Offshore installations require specialized coatings due to exposure to saltwater, humidity, and biofouling.

the long-term success of this pioneering project,” said Thomas Beucler, Floating Foundation Package Manager in EOLMED.

Besides the external coating Jotun also secured the interior, which can be compared to a ballast tank and represents even larger surface areas. Jotun's solvent-free solutions, in line with the owner's sustainability requirements, was used and applied in partnership with steel fabricator Matière and Italian applicator Petrol Lavori.

In addition, Jotun provided coatings for external equipment and transition pieces at the Navacel yard, using the Jotun NORSOK 1 system to meet stringent technical specifications. Across the project, Jotun delivered critical technical support to ensure execution and compliance.

“The scope that included both exterior and interior coatings for all three floaters, consumed nearly 60,000 litres of Jotacote Universal S120, along with Penguard Pro GF and Hardtop AX. We are very proud to have secured this significant project, and I am sure it may serve as a strong reference for Jotacote Universal S120 and our overall capabilities, both within and outside of the

European market. To enable the future of energy, assets need long lasting protection even in the harshest environments,” concludes Torgeir Bringeland, Marketing manager in Jotun Europe Sales.

Poised for substantial growth

The wind turbine coatings market is highly competitive, with key players focusing on product innovation, strategic partnerships, and geographic expansion to strengthen their market presence. Leading companies are continuously developing advanced coating solutions to meet the evolving requirements of the wind energy sector.

In conclusion, one can say that the wind turbine coatings market is poised for substantial growth, driven by the global shift toward renewable energy and the increasing need for durable, high-performance coating solutions. With continuous innovation, expanding offshore projects, and rising maintenance requirements, the market is set to play a crucial role in supporting the efficiency and longevity of wind energy infrastructure worldwide.

References:
Persistence Market Research Inc.

Preserving coating durability with dehumidification solutions in industrial setups

Even the slightest trace of moisture on the substrate, either before or during the application, can compromise the intercoat adhesion and curing

Mr Atul Bansal, Chief Operating Officer, Technical Drying Services

In an industrial environment, coating systems serve as a line of defence for safeguarding the assets. They form protective layers for driving operational safety for ensuring reliability in the long term and preserving the integrity of assets. A wide range of sectors including power plants, refineries, petrochemical industry, etc., rely on the durability of coatings for creating ideal conditions to carry out surface preparation, blasting, painting and curing.

However, the coating system is highly vulnerable to uncontrolled moisture where excess humidity and fluctuating dew points jeopardize surface preparation. It goes a long way in weakening the adhesion between the substrate and coating, culminating in premature

coating failure. Triggering a host of defects entailing blistering, cracking, peeling, flash rust, and unstable curing, it reduces the coating life cycle.

The industrial setup consists of tanks, reactors, columns, pipelines, coke drums, vessels, bullets, etc., for the storage of sensitive and highly reactive materials. Any instance of improper coating in such settings gives rise to the issue of corrosion, resulting in acute structural degradation and contamination of stored products. The risk is further accentuated during monsoon, cold weather and at night when the moisture exceeds normal levels in the air and stimulates condensation on the metal surface.

In order to control the moisture challenge, it is



Employing desiccant dehumidification solutions plays a crucial role in precise regulation of the relative humidity level and dew point while maintaining optimal temperature.

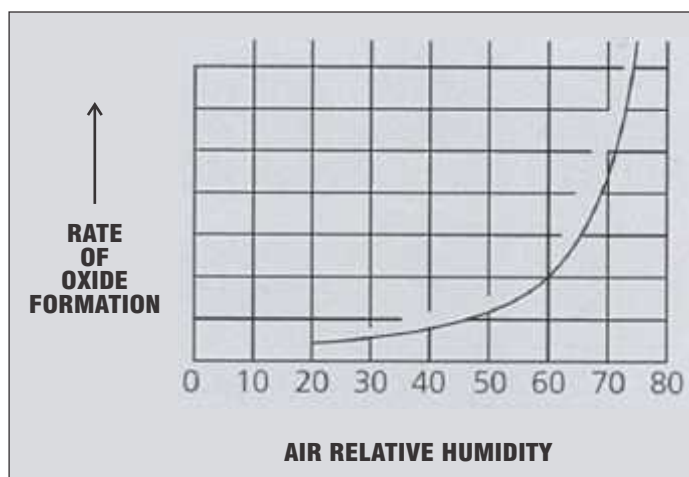
critical to maintain a controlled environment within the setup. Even the slightest trace of moisture on the substrate, either before or during the application, can compromise the intercoat adhesion and curing. Giving rise to numerous hassles in the form of frequent reworks, unplanned downtime, it incurs exorbitant maintenance costs on the company and even compromises the safety and compliance of the setup.

Therefore, employing desiccant dehumidification solutions plays a crucial role in precise regulation of the relative humidity level and dew point while maintaining optimal temperature. It proficiently achieves a stable, moisture-controlled environment that is not influenced by the outside weather conditions. Ultimately, it allows for consistent and effective

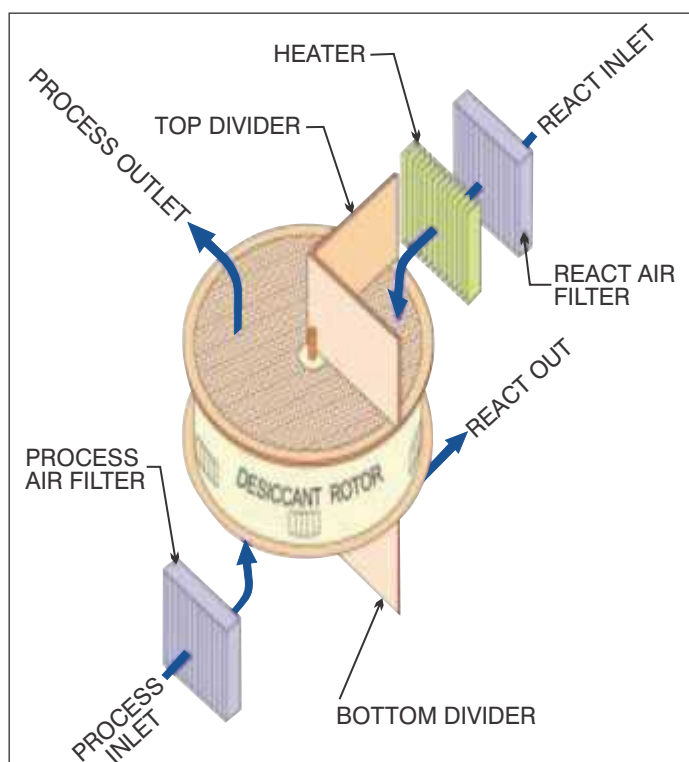
surface preparation, responsible for reliable coating application.

The advanced technology impedes condensation while performing the blasting and painting operations, which in turn defies flash rust formation. Along with this, desiccant dehumidification ensures consistent curing, checks blistering and reduces any form of coating defect in the facility. Furthermore, fortifying intercoat adhesion, it drives optimal performance of the coating systems while ensuring their longer life cycle that transcends industry expectations.

It enables blasting and coating operations all year-round by continuously maintaining controlled humidity levels even during the night, which proactively inhibit the development of any



The coating system is highly vulnerable to uncontrolled moisture where excess humidity and fluctuating dew points jeopardize surface preparation.



Desiccant dehumidifiers enable enhanced coating performance, which eventually translates to significant cost savings.

unfavourable conditions. Contributing to improved execution efficiency, it reduces unpredictable downtime for facilitating the timely completion of projects. Altogether, desiccant dehumidifiers enable enhanced coating performance, which eventually translates to significant cost savings.

The benefits further extend to safeguarding electromechanical equipment for boosting the longevity and functionality of the systems. Supporting concrete drying and monitoring relative humidity in a control room, it prevents equipment malfunctioning for delivering optimal performance of systems.

Understanding the importance of coating durability in determining the safety of the facility and driving asset protection, integrating desiccant dehumidifiers is a prerequisite in industrial setups. It forms an integral part of the system for enabling a resilient coating system aimed at retaining the infrastructural integrity. Reinforcing uninterrupted operation within the facility, it invariably adds to the productivity of plants.



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Coatings and composites help ageing hydropower stations meet growing energy demands

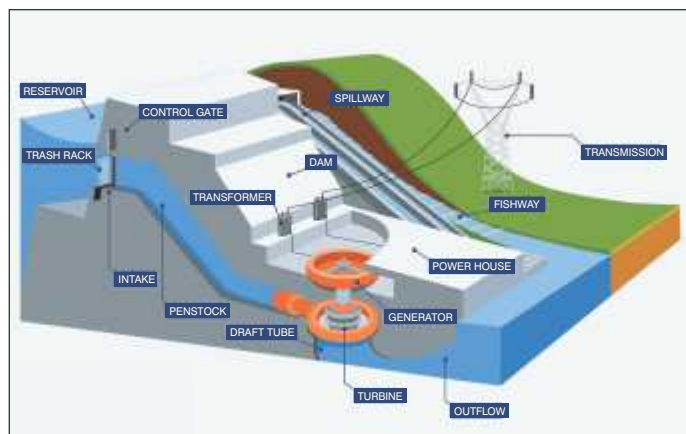
Polymeric repair composites and protective coatings enhance the efficiency of key hydropower equipment and facilities, enabling the industry to deliver greater output and meet growing energy demands

Considering how global energy consumption is projected to increase significantly in the coming decades, it is absolutely critical that aging hydropower stations are modernized in a way to not only “sustain output,” but to go beyond this. With polymeric repair composites and protective coatings, the efficiency of key hydropower equipment and facilities can be intrinsically enhanced and improved. Thus enabling the industry to deliver greater output and meet growing energy demands.

Energy demand expected to rise up to 2050

Hydropower is the third largest source of power generation worldwide. Although it remains a cornerstone of the global energy mix, Fatih Birol, Executive Director at the International Energy Agency (IEA) highlights how: “we must also remember that many hydropower plants in advanced economies are over 40 years old. Refurbishing them is vital to sustain output.”

It could be argued that, considering how the global



Hydropower plant diagram.

demand for energy is expected to rise, it is imperative that refurbishment methods are deployed that go beyond the ability to “sustain output.” Instead, strategies should be used that fundamentally improve and enhance output.

Indeed, the IEA anticipates “continued increases in energy demand to 2050.” In the two scenarios they outline, energy demand is expected to increase by a staggering amount — around 40% up to 2035. An increasing portion of this can be attributed to data centres, with data centre electricity consumption set to more than double to around 945 TWh by 2030.

Polymeric technology improves efficiency of hydropower stations

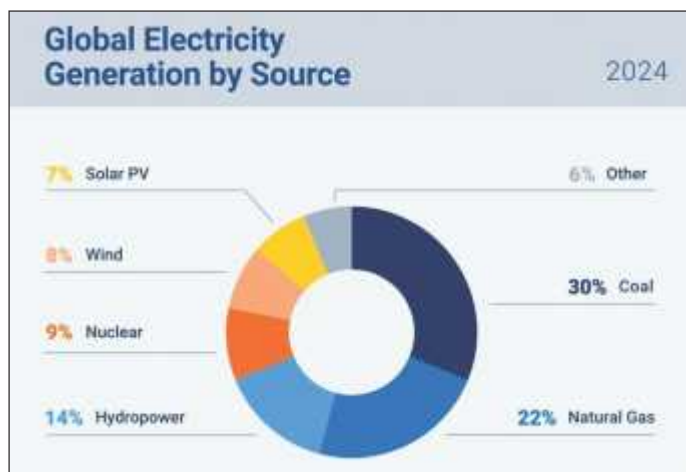
Amongst a number of strategies that support this expected rise in energy demand, asset owners are turning to polymeric protective coatings and repair

composites. Not only can this technology repair damaged assets and protect them against future damage, but they can also intrinsically improve their efficiency too, as well as the overall efficiency of the hydropower station. As energy demand is expected to increase over the next few decades, refurbishing assets with efficiency-enhancing systems helps to support this growth.

By deploying these systems, hydropower operators are able to bypass the expensive and time consuming process of asset replacement. As such, in addition to the significant financial savings these systems facilitate, they also simultaneously help hydro plants to minimize their climate impact. By repairing and improving damaged hydropower equipment and structures, asset owners can mitigate the hefty carbon footprint that can otherwise be incurred in the asset replacement process.



Coatings and composites improve efficiency in hydropower stations.





Lens of hydraulic valve coated with epoxy coating, Belzona 1341 (Supermetalglide).

Engineered to withstand demanding conditions

Hydropower stations operate in some of the most demanding service conditions. High-velocity water flow, cavitation, continuous immersion, erosion, corrosion and mechanical wear all contribute to equipment deterioration and reduced efficiency. Industrial coatings and composite systems are engineered to repair, protect and improve assets in this challenging environment.

For example, the epoxy coating Belzona 1341 (Supermetalglide) can be used to improve the efficiency of different types of fluid handling equipment such as turbine runners, wicket gates and hydraulic valves.

This two-part epoxy coating improves efficiency by using hydrophobic technology to repel process fluids and reduce turbulent flow. Efficiency increases of up to 7% have been recorded on

new equipment and up to 20% on refurbished equipment. When compared to polished stainless steel, it was found that Belzona 1341 (Supermetalglide) was 15 times smoother.

Failure of sealants between bolted flanges on switchgears in hydropower stations can result in SF₆ gas leakage, reducing insulation performance and increasing environmental impact. Belzona SF6-FIX is designed to seal sulphur hexafluoride (SF₆) leaks in switchgear systems. The solution can be applied online, without specialist tools, and can reduce leaks to undetectable levels.

Hydraulic ball valves play a critical role in flow control and are continuously exposed to erosion, abrasion and chemical attack. Surface degradation can reduce performance and operational reliability. Belzona 1000 Series paste-grade systems can be



SF₆ leak successfully sealed with Belzona SF6-FIX.



Damaged hydraulic ball valve repaired with Belzona 1000 Series systems.



Original geometry of flange restored with Belzona 1000 Series solutions.

used to rebuild worn or damaged areas, restoring original dimensions while providing high mechanical strength and durability. Following restoration, a Belzona 1000 Series protective coating can be applied to provide long-term resistance to erosion-corrosion and flow-induced wear.

Pump bearing pedestals provide structural support and alignment. Damaged flange faces can lead to misalignment, vibration and premature equipment failure. Belzona 1000 Series repair composites can be used to rebuild flange faces and restore original geometry. An industrial coating from the same range can then be applied to safeguard against erosion and corrosion, ensuring structural stability and extended service life.

Mitigate cost and carbon footprint of asset replacement

As global energy demand increases towards 2050, the challenge facing hydropower operators is not simply to preserve legacy assets, but to unlock greater performance from them. Aging infrastructure does not have to equate to declining efficiency. With the strategic use of advanced polymeric repair composites and protective coatings, hydropower stations can extend asset life, enhance hydraulic performance and increase output — all without the cost, downtime and carbon footprint associated with full asset replacement.



Roughness comparison between polished stainless steel and Belzona 1341 (Supermetalglide).
Surface inspection: Leeds University.



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New hull cleaning standard ready to ensure cleaner shipping

The new ISO-standard ISO 6319 simplifies the rules and processes of hull cleaning for ports and shipowners and operators

The new ISO standard was published in March 2026, aims to help port authorities, shipowners and operators navigate rules on how ships should be cleaned in an environmentally sound way. Hull cleaning is gaining traction among shipowners, while countries are increasingly introducing regulations — but many ports still lack practical guidance on how to manage it.

“Biofouling on ships' hulls can spread invasive aquatic species and damage ecosystems. It also increases drag, reducing a vessel's efficiency and leading to higher fuel consumption and increased greenhouse gas emissions,” says Irene Øvstebø Tvedten, Senior Adviser at Bellona.

Tvedten is the project manager for the Clean Hull

Initiative (CHI) and has led the work on the new ISO-standard known as ISO 6319, titled “*Conducting and documenting in-water cleaning of biofouling on ships.*”

One of the key solutions for managing biofouling on ships — hull cleaning — can help prevent the spread of invasive aquatic species and reduce greenhouse gas emissions. ISO 6319 supports these practices by ensuring that hull cleaning is carried out responsibly and does not release organisms or chemicals into the environment.

“The standard was finally published, and I'm delighted to share that it is now available for global stakeholders in shipping and ports,” says Tvedten.

ISO 6319 aims to help ports



PHOTOS: CLEAN HULL INITIATIVE

Ms Irene Tvedten, Senior Adviser at Bellona, is the project manager for the Clean Hull Initiative (CHI) and has led the work on the new ISO-standard known as ISO 6319.

and regulators request documentation from service providers intending to clean ship hulls, making it easier to assess whether the technology used provides adequate environmental protection.

One of the contributors to ISO 6319 was Port Environment Expert at Port of Antwerp-Bruges, Luc Van Espen. He explains that at the Port of Antwerp-Bruges, hull cleaning is permitted as part of the port's commitment to sustainable shipping.

“An internationally accepted and applied standard creates a level playing field among seaports worldwide, strongly limiting the transfer of invasive alien species from one port to another,” says Van Espen.

Globally, approval procedures vary widely among ports and authorities, creating challenges for shipowners. Wallenius Wilhelmsen, a leading global RoRo operator,

was among the shipowners contributing to ISO 6319 and is working to lower fleet emissions through enhanced hull maintenance.

“When applications follow the same structure and technical specifications, ports and authorities can process them more efficiently. For us as a shipping company, this means fewer operational disruptions and greater predictability,” says Senior Manager Kim-Helge Brynjulfsen at Walleni Wilhelmsen.

Another contributor to ISO 6319 was Jotun, a global leader in marine coatings to tackle biofouling, which also offers a proactive hull-cleaning robot and compatible coatings.

“At Jotun, we find that many ports and authorities lack detailed knowledge about hull cleaning and are often unnecessarily sceptical of



Mr Luc Van Espen, Port Environment Expert at Port of Antwerp-Bruges, one of the contributors to ISO 6319.



Mr Kim-Helge Brynjulfson, Senior Manager at Walleni Wilhelmsen, a leading global RoRo operator, is also a contributor to ISO 6319 and works to lower fleet emissions through enhanced hull maintenance.

cleaning ships. ISO 6319 can help ports assess permits on a case-by-case basis, depending on whether the hull cleaning technology sufficiently protects the environment. There are

significant quality differences between hull cleaning systems,” says Petter Korslund, Regulatory Affairs Manager at Jotun, one of the many contributors to the new standard.



Mr Petter Korslund, Regulatory Affairs Manager at Jotun, one of the many contributors to the new standard.



Mr Mark Riggio, one of the contributors to ISO 6319, and technical director at BEMA, an organisation consisting of several hull-cleaning service providers.

“ISO 6319 helps guide approval authorities as to what the actual risks of cleaning are and how to manage and mitigate those risks to the greatest extent possible while promoting the environmentally-sound cleaning of ships,” says Mark Riggio, one of the contributors to ISO 6319, and technical director at BEMA, an organization consisting of several hull-cleaning service

providers.

“In the group developing this standard, competitors have put commercial interests aside and collaborated to set the terms for hull cleaning. I’m truly impressed by their efforts,” says Tvedten.

Originally, the standard was initiated by the Clean Hull Initiative, which consists of a range of stakeholders with a shared interest in proactive hull cleaning — meaning sufficiently frequent cleaning to maintain a thin layer of biofouling on the hull. The group produced the original draft four years ago, under the leadership of Bellona.

“Ports and regulators play a key role in enabling or prohibiting hull cleaning. ISO 6319 will help them make informed decisions,” Tvedten concludes.

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A call for transparency in hull performance

Better data, technology and collaboration are steadily improving ship performance and biofouling management, but greater transparency between stakeholders are needed to drive sustainable outcomes across the industry, argued experts at HullPIC. The annual conference attracted a significant number of leading stakeholders from the shipping industry.

Shipping faces a period of significant uncertainty. Geopolitical instability, shifting policy timelines and delays to the IMO Net-Zero Framework have prompted many operators to look inward, redirecting attention from regulatory compliance towards operational efficiency. Against this backdrop, over 90 participants recently gathered for the 11th HullPIC conference at Certosa di Pontignano, Italy, representing shipping companies, service providers, coating suppliers and technical experts.

The event, co-founded by Jotun and VB Conferences, covered the latest developments in ship performance and biofouling management.

Call for evidence-based performance claims

"Discussing developments in ship performance, technologies and practical solutions are of great interest and value to the industry, and even more so in light of the regulatory and commercial pressures that are impacting shipping trades, fuel prices and the environment," said Jotun's Morten Sten Johansen. "There is a sense that the industry, while moving in small steps, is steadily converging on better answers to longstanding questions,

and that's thanks in the main to the commitment of the HullPIC community to openly share knowledge, challenge conventional thinking and accelerate progress together."

Johansen also called for evidence-based performance claims in the marine coatings sector. "Speed loss credibility matters because there is a growing disconnect between reported, claimed figures that introduce operational and regulatory risk. This not only affects individual vessels but may also distort fleet-level decarbonization strategies," he warned, stressing the need to use a common assessment methodology such as ISO 19030 applied through independent review.

A consistent message from participants was that operational performance improvements represent some of the most accessible efficiency gains available to the industry – all dependent on reliable data foundation.

Conference organiser Volker Bertram identified long-term performance monitoring based on high-frequency data as the direction the industry is increasingly moving towards, with hull coatings, cleaning strategies and propulsion-improving devices all benefiting from more rigorous, continuous assessments.

Another speaker at the conference, David Pang from Swire Shipping, showcased a cost-benefit analysis of hull coatings across Swire's fleet, arguing that decarbonization efforts must bridge the gap between laboratory performance and operational reality. Several further presentations addressed data-driven optimization, covering trim, data sampling and a new ISO



Co-founded by Jotun and VB Conferences, the 11th HullPIC covered the latest developments in ship performance and biofouling management.

25817 initiative on fuel consumption evaluation.

At the same time Hamed Vaseghnia in Jotun advocated for CFD-based digital frameworks as alternatives to purely empirical methods for vessel rating and performance assessments, while Albis Marine Performance's Falko Fritz drew on 13 years of high-frequency monitoring data to highlight an 11 to 12 percentage point gap in hull overconsumption between two operators using identical monitoring systems. "The problem isn't the tool," said Fritz. "It's the combination of commercial incentives, data discipline, and organizational willingness to act." At roughly USD 400,000 per percentage point per year across a 25-vessel fleet, the stakes are considerable.

Fuel costs and ETS driving energy efficiency investments

A survey carried out during the conference showcased that fuel costs and ETS ranked first as the driver of

energy efficiency investment, with 56% placing it top. Regulatory compliance came second, charter attractiveness third, and environmental responsibility last, confirming that financial and regulatory pressures remain the primary commercial motivators. On investment posture, close to 47% favoured investing soon to cut costs and 37% preferred acting immediately to stay ahead of regulation. Hull condition and fouling assessment was the most cited use case for vessel performance management at 50%, followed by routing and speed optimization at 28%.

The conference included a panel forum featuring Martin Koepke (Hapag Lloyd), Elgan Moses (TUI Cruises), Falko Fritz (Albis) and Richard Marioth (Idealship), moderated by Johansen and Bertram. Moses made a pointed case for end-user focus: "Captains and chief engineers have no interest in model sophistication or technical jargon. Output must be simple, accessible and



Participants at the 11th HullPIC conference at Certosa di Pontignano, Italy, representing shipping companies, service providers, coating suppliers and technical experts.

actionable.” He proposed reframing “insights as a service” as “useful and actionable insights as a service.” The cruise industry, he noted, already faces data oversaturation with 80,000 data points per vessel at five-second intervals and tools that, despite considerable investment, are not being used. The human element, the panel agreed, is consistently underestimated.

Artificial Intelligence (AI) and machine learning (ML) also featured prominently, with the panel taking a measured view: both are useful but currently overhyped, with physics remaining the necessary foundation. Marioth argued that the ML community should be held to documentation standards, requiring a minimum description of architecture, training data and safeguards so that methods can be independently evaluated. On what comes next, the panel pointed to two priorities: integrating whole-voyage logistics so that vessels are not racing to port queues, and reforming charter party contracts, which Bertram described as copy-pasted from generations ago and ill-suited to modern performance monitoring. The panel called for standardized charter party templates that reward operational performance rather than legal representation.

“One of the biggest opportu-

nities for further enhancing vessel performance is closing the gap between observation and impact,” said Malte Mittendorf (Mærsk Line) and added, “As an industry, we collect extensive performance data and underwater inspection reports, but they often exist in parallel. By improving data accuracy and directly linking hull condition observations to the vessel’s performance history, we can move from reactive fouling response to predictive as well as value-based decision-making.”

Echoing the need for a predictive approach, Vivek Nair (Seaspan Ship Management) said, “The broader shipping industry has rapidly embraced condition-based maintenance and predictive models for engine rooms and onboard machinery, yet we continue to treat the hull, the single largest factor in fuel consumption, with archaic, calendar-based or highly reactive strategies. True improvement in ship performance requires us to bring the hull into the predictive era. By leveraging advanced data science to monitor micro-changes in resistance over time, we can pinpoint the exact inflection point where the cost of a proactive intervention is outweighed by the fuel penalty of degradation. It is time the industry manages hull fouling not as an inevitable consequence of time, but as a preventable

anomaly managed through rigorous, predictive algorithms.”

Entering an energy awareness era

Carsten Manniche (Navigator Gas) noted that the industry has entered an awareness era. “The next step is to create the necessary energy awareness onboard and onshore just as we have done regarding safety. We are moving into an era that can be difficult to grasp as it involves human beings and behaviours, and not just energy efficiency improving devices. And do we have the right competencies for this new step?”

“Improving ship performance is not primarily a technical challenge but one of leadership, governance, and culture. Sustainable gains require visible commitment from top management, treating performance and decarbonization as long-term strategic priorities,” stated Nikos Mitropapas (CMA CGM) and added, “A holistic efficiency view must link hull, propulsion, machinery, operations, and emissions. Also, credible performance depends on high-quality sensors, quantified uncertainty, and transparent reporting. All that said, experimentation and failure must be accepted as essential drivers of learning and technical maturity.”

Gerry Docherty (Ardmore Shipping) commented, “Clearly, progress is being made across the industry in many aspects of hull performance optimization. At the same time, it has to be acknowledged that there is no ‘one size fits all’ solution, and much can depend on ship type and trading patterns. Being able to collect high speed performance data is definitely an advantage, but only when this is combined with a proactive approach to coating application, hull performance, hull cleaning and fuel optimization, can the true benefits be realised.

Collaboration at the core

The willingness of competitors, customers and partners to share knowledge openly, and the sense that the industry is steadily moving in the right direction through better data and deeper insights, was truly showcased at HullPIC.

“It is clear from the presentations, case studies and discussions during HullPIC that bridging performance measurement and biofouling management is seen by many as a central challenge the industry must continue to address, and we, the HullPIC community, remain committed to that because we firmly believe the critical conversations will help drive better outcomes across the industry,” concluded Johansen.

Zero friction coatings market to achieve US\$ 1.6 billion by 2033, expanding at a 5.3% CAGR

The global Zero Friction Coatings Market is witnessing steady expansion, fueled by rising demand for high-performance, low-wear materials across industries. According to the latest study by Persistence Market Research, the market is projected to grow from US\$ 1.1 billion in 2026 to US\$ 1.6 billion by 2033, registering a CAGR of 5.3% during the forecast period. These coatings, designed to minimize friction and wear between surfaces, are becoming essential in sectors where efficiency, durability, and energy savings are critical.

The increasing need for fuel efficiency and reduced emissions is driving the adoption of zero friction coatings in automotive and aerospace sectors. These coatings significantly reduce mechanical losses, enhance component lifespan, and

improve overall system efficiency. In aerospace, where extreme conditions are common, advanced coatings ensure reliability and reduced maintenance cycles.

Continuous innovations in nanotechnology and material science are reshaping the zero friction coatings landscape. The development of ultra-thin, highly durable coatings using nanomaterials is enabling superior performance under extreme temperatures and pressures. These advancements are expanding application areas and improving coating effectiveness across industries.

The rapid growth of electronics and semiconductor industries is creating new opportunities for zero friction coatings. These coatings are used to protect delicate components, reduce wear in micro-mechanical systems,



IMAGE: PERSISTENCE MARKET RESEARCH

and enhance performance in precision devices. As miniaturization trends continue, demand for advanced coatings is expected to rise.

Zero friction coatings are playing a vital role in energy generation and renewable sectors, including wind turbines and solar equipment. These coatings help reduce wear in moving parts, improve efficiency, and extend equipment lifespan, contributing to cost savings and sustainability goals.

The Zero Friction Coatings Market is poised for consistent growth as industries increasingly prioritize efficiency, sustainability, and performance. Technological advancements, coupled with expanding applications across diverse sectors, will continue to drive market expansion. As demand for high-performance materials rises globally, zero friction coatings are expected to play a crucial role in shaping the future of industrial and technological innovation.

ASTM announces new standard for paint testing

ASTM International announced that its paint and related coatings, materials and applications committee (D01) has approved a new standard designed to determine the presence and quantify the amount of lead in new enamel paint samples, notes a press release from the organization.

The standard, D8661, introduces a method using X-ray fluorescence (XRF) as an alternative to techniques such as inductively coupled plasma-optical emission spectroscopy (ICP-OES). The

organization said the approach is less expensive, requires less time and eliminates the need for complex sample preparation such as acid digestion.

Lead in new paint remains a concern for human health, particularly in regions where regulatory limits are not enforced or where testing capabilities are limited. The standard supports the 90 ppm limit recommended by the United Nations Environmental Programme's Model Law and Guidance for Regulating Lead Paint.

According to ASTM member Caryn Seney, XRF analyzers reduce reliance on conventional spectrometers and associated maintenance requirements. The method is intended to expand access to testing in low- and middle-income countries where resources may be limited.

"The new standard provides a tool that regulators and scientists can use to limit exposure to lead and lead-based compounds, reducing the risk associated with lead-based paint," said Seney.



PHOTO: 123RF

ASTM said stakeholders across manufacturing, industrial and academic sectors are encouraged to participate in interlaboratory studies to further validate the method.

Green coatings market expected to see growth to US\$ 188.1 billion by 2033, expanding at a CAGR of 4.8%

The global Green Coatings Market is witnessing strong momentum as industries worldwide accelerate their transition toward environmentally responsible materials and low-emission technologies. According to the latest study by Persistence Market Research, the market is expected to be valued at US\$ 135.5 billion in 2026 and is projected to reach US\$ 188.1 billion by 2033, expanding at a CAGR of 4.8% from 2026 to 2033. Rising awareness regarding volatile organic compound (VOC) emissions, stricter environmental regulations, and increasing demand for sustainable construction and automotive materials are key factors driving market growth. Green coatings, known for their reduced environmental footprint, superior durability, and improved indoor air quality benefits, are becoming the preferred choice across multiple end-use industries.

The construction sector remains one of the largest consumers of green coatings, especially in residential and commercial infrastructure projects. Governments and developers are increasingly emphasizing green building certifications and energy-efficient structures, boosting the adoption of waterborne and powder coatings. These products help reduce harmful emissions while enhancing aesthetic appeal and structural longevity. Rapid urbanization in emerging economies is expected to

further strengthen demand in the architectural coatings segment.

The automotive industry is playing a pivotal role in expanding the green coatings market. Manufacturers are integrating sustainable coatings into vehicle production to comply with environmental mandates and improve manufacturing efficiency. Waterborne coatings and radiation-cured technologies are gaining traction due to faster curing times, lower waste generation, and superior finish quality. The growth of electric vehicles is also creating new opportunities for advanced green coating solutions used in battery enclosures, lightweight components, and protective finishes.

Innovation remains a major growth catalyst for the green coatings market. Companies are investing in bio-based raw materials, nanotechnology-enabled coatings, and high-performance powder formulations that offer corrosion resistance, UV protection, and antimicrobial properties. Advanced curing technologies are helping reduce energy consumption during manufacturing processes. These innovations are allowing green coatings to compete effectively with conventional coatings in terms of both performance and cost-efficiency.

Governments across North America, Europe, and Asia are implementing stricter regulations on hazardous



chemicals and VOC emissions. This regulatory pressure is compelling industries to replace solvent-based coatings with sustainable alternatives. Policies promoting circular economy models and sustainable manufacturing practices are expected to create long-term opportunities for green coating manufacturers. Regulatory compliance is now becoming a competitive advantage for companies adopting environmentally safe coating technologies.

Industrial facilities are rapidly adopting green coatings for machinery, equipment, pipelines, and infrastructure assets. The need for durable, corrosion-resistant, and low-maintenance coatings is driving adoption across manufacturing, energy, and heavy engineering sectors. High-solids and powder coatings are especially popular due to their minimal waste and strong protective properties. As industries modernize production facilities, demand for eco-friendly industrial coatings is likely to increase substantially.

Modern consumers are increasingly favoring brands

that demonstrate environmental responsibility. This shift in purchasing behavior is encouraging manufacturers of paints, coatings, furniture, appliances, and automobiles to adopt green coating technologies. Sustainability labeling, reduced odor products, and healthier indoor environments are becoming major decision-making factors. As a result, brand owners are partnering with coating companies to develop next-generation eco-friendly product lines.

The future of the Green Coatings Market looks promising as sustainability continues to shape industrial priorities and consumer choices worldwide. Continuous advancements in formulation science, growing demand from construction and automotive sectors, and supportive environmental regulations will remain core growth drivers. With increasing investment in clean technologies and circular production systems, the market is poised for steady expansion through 2033, offering substantial opportunities for manufacturers, suppliers, and investors alike.

Self-healing composite can make airplane, automobile and spacecraft components last for centuries

Researchers have created a self-healing composite that is tougher than materials currently used in aircraft wings, turbine blades and other applications – and can repair itself more than 1,000 times. The researchers estimate their self-healing strategy can extend the lifetime of conventional fiber-reinforced composite materials by centuries compared to the current decades-long design-life, notes a press release from *EurekAlert*.

"This would significantly drive down costs and labor associated with replacing damaged composite components, and reduce the amount of energy consumed and waste produced by many industrial sectors – because they'll have fewer broken parts to manually inspect, repair or throw away," says Jason Patrick, corresponding author of the paper and an associate professor of civil, construction and environmental engineering at North Carolina State University.

At issue are fiber-reinforced polymer (FRP) composites, which are valued for their high strength-to-weight ratio and are commonly used in aircraft, automobiles, wind-turbines, spacecraft and other modern structural applications. FRP composites consist of layers of fibers, such as glass or carbon fiber, that are bonded together by a polymer matrix, often epoxy. The self-healing technique developed by the NC State researchers targets interlaminar delamination, which occurs when cracks within the composite form and cause the fiber layers to separate from the matrix.

"Delamination has been a

challenge for FRP composites since the 1930s," Patrick says. "We believe the self-healing technology that we've developed could be a long-term solution for delamination, allowing components to last for centuries. That's far beyond the typical lifespan of conventional FRP composites, which ranges from 15-40 years."

The self-healing material resembles conventional FRP composites, but with two additional features. First, the researchers 3D-print a thermoplastic healing agent onto the fiber reinforcement, creating a polymer-patterned interlayer that makes the laminate two to four times more resistant to delamination. Second, the researchers embed thin, carbon-based heater layers into the material that warm up when an electrical current is applied. The heat melts the healing agent, which then flows into cracks and microfractures and re-bonds delaminated interfaces – restoring structural performance.

To evaluate long-term healing performance, the team built an automated testing system that repeatedly applied tensile force to an FRP composite producing a 50 millimeter-long delamination, then triggered thermal remending. The experimental setup ran 1,000 fracture-and-heal cycles continuously over 40 days, measuring resistance to delamination after each repair. In other words, the researchers cracked the material in the exact same way, healed it, and then measured how much load the material could

handle before delaminating again. And they did that 1,000 times, an order-of-magnitude beyond their prior record.

"We found the fracture resistance of the self-healing material starts out well above unmodified composites," says Jack Turicek, lead author of the paper and a graduate student at NC State. "Because our composite starts off significantly tougher than conventional composites, this self-healing material resists cracking better than the laminated composites currently out there for at least 500 cycles. And while its interlaminar toughness does decline after repeated healing, it does so very slowly."

In real-world scenarios, healing would only be triggered after the material is damaged by hail, bird strikes or other events, or during scheduled maintenance. The researchers estimate the material could last 125 years with quarterly healing or 500 years with annual healing.

"This provides obvious value for large-scale and expensive technologies such as aircraft and wind turbines," Patrick says. "But it could be exceptionally important for technologies such as spacecraft, which operate in largely inaccessible environments that would be difficult or impossible to repair via conventional

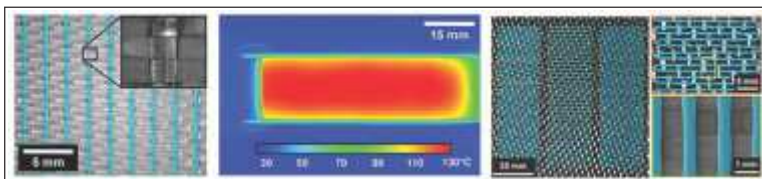
methods on-site."

The study also shed light on why recovery slowly declines over time. With continued cycling, the brittle reinforcing fibers progressively fracture – creating micro-debris that limits rebonding sites. In addition, chemical reactions where the healing agent interfaces with the fibers and polymer matrix decline over time. Even so, modeling suggests the self-healing will remain viable over extremely long time scales.

"Despite the inherent chemo-physical mechanisms that slowly reduce healing efficacy, we have predicted that perpetual repair is possible through statistical modeling that is well suited for capturing such phenomena," says Kalyana Nakshatralla, co-author of the paper and the Carl F. Gauss Professor of Civil and Environmental Engineering at the University of Houston.

Patrick has patented and licensed the technology through his startup company, Structeryx Inc.

"We're excited to work with industry and government partners to explore how this self-healing approach could be incorporated into their technologies, which has been strategically designed to integrate with existing composite manufacturing processes," Patrick says.



This image shows: (left) 3D printed thermoplastic healing agent (blue overlay) on glass-fiber reinforcement; (middle) infrared thermograph during in situ self-healing of a fractured fiber-composite; (right) 3D printed healing agent (blue) on carbon-fiber reinforcement.

PHOTO: JASON PATRICK, NC STATE UNIVERSITY

Identifying corrosion initiation sites in aluminum alloys

Researchers at Tohoku University have developed a new technique to identify the initiation sites of a destructive process called pitting corrosion, which occurs when aluminum (Al) alloys are exposed to sodium chloride solutions. This advancement is expected to accelerate the development of Al alloys with improved corrosion resistance. Since Al alloys are widely used in transportation equipment, improving corrosion resistance means we can develop more durable automotive engines, suspensions, and transmissions.

Al alloys are an excellent choice for transportation equipment due to their low weight and recyclability. However, their long-term durability is constantly being challenged by diverse and harsh operating environments. Because Al alloys contain complex microstructures, identifying the origin of corrosion has remained difficult.

"This innovative study combines real-time optical microscopy with a boric-borate buffer solution, in order to suppress discoloration around intermetallic compounds, prevent the deposition of corrosion products, and enable clear visualization of the exact locations where pits form," explains Masashi Nishimoto (Tohoku University).

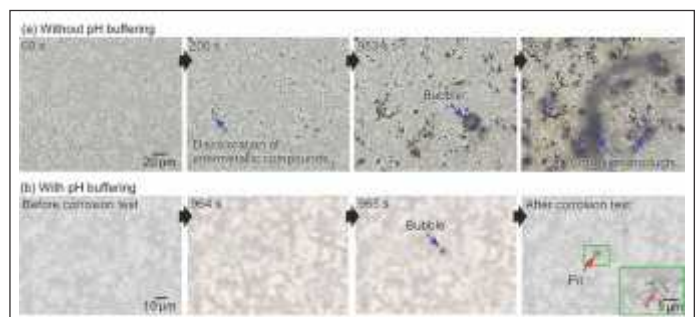
The research team applied their technique to ADC12 (Al-12%Si-2%Cu), a die-cast Al alloy used for various automotive parts. Since alloys

are a mixture of different metals and impurity elements (such as Cu, Fe, Mn, and Mg), numerous intermetallic compounds form during the solidification process, creating electrochemical inhomogeneities that are thought to cause pitting corrosion. However, conventional corrosion tests in sodium chloride solutions result in widespread discoloration of intermetallic compounds and deposition of corrosion products, obscuring pit initiation sites. This makes it difficult to pinpoint the precise cause.

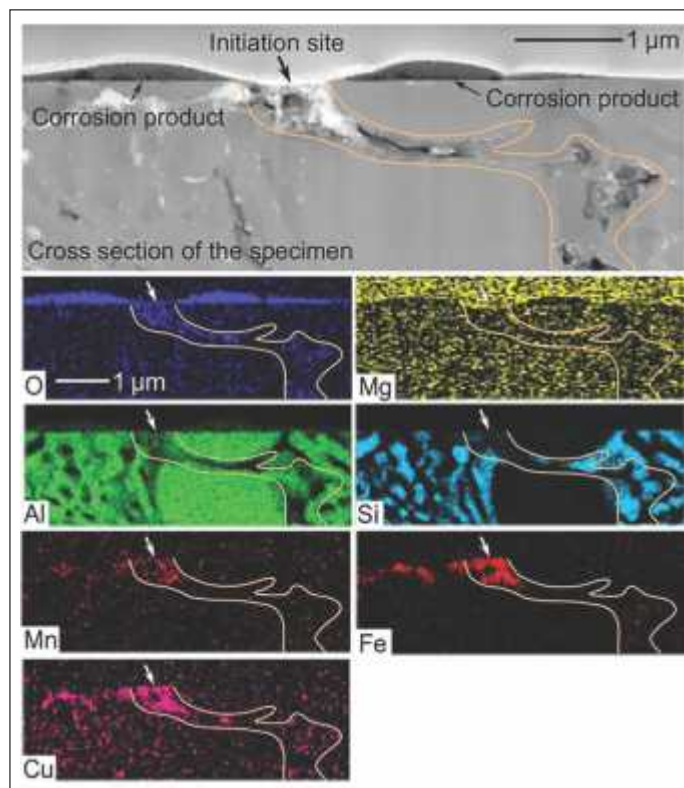
By using a boric-borate buffer solution, the newly developed technique suppresses alkalization on intermetallic compounds. This prevents discoloration and reduces corrosion product deposition, allowing clear observation of pit initiation and early growth. Subsequent analysis by scanning transmission electron microscopy and energy-dispersive X-ray spectroscopy revealed that pits originate in the final solidification region. However, not all final solidification regions become a pit, which suggests that pit initiation also depends on specific local chemical compositions and microstructural features.

"Being able to observe where and how these pits form is an exciting advancement, since it may help us find ways to prevent or slow down their formation for more long-lasting vehicle components," remarks Nishimoto.

The method can be applied beyond die-cast alloys to



(a) Optical microscopy image of the Al alloy surface in a sodium chloride solution without pH buffering. Discoloration of intermetallic compounds and the deposition of corrosion products increase over time. (b) Optical microscopy image of the Al alloy surface in a boric-borate buffered sodium chloride solution. Discoloration and corrosion product deposition are suppressed, allowing the pit initiation site to be clearly observed.



Cross-sectional scanning transmission electron microscopy image and corresponding energy-dispersive X-ray spectroscopy elemental maps of a pit initiation site identified using the developed technique.

elucidate pitting corrosion mechanisms in other Al alloys. By clarifying causal relationships between microstructure and corrosion behavior, it contributes to guidelines for designing materials with higher corro-

sion resistance and supports the development of longer-lasting automotive components.

This research was published recently online in the *Journal of The Electrochemical Society*.

PolyU develops hydrogel coating for solar panels, boosting power generation efficiency towards urban carbon neutrality

A research team at The Hong Kong Polytechnic University (PolyU) has developed a simple and affordable hydrogel coating that not only enhances the heat dissipation in solar panels for cooling their “hot spots” effectively, but also increases power generation efficiency, ultimately supporting Hong Kong's goal of achieving urban carbon neutrality. Hot spots, often caused by partial shading, have long been the culprit behind diminishing power generation efficiency of solar panels, compromising the stability of entire power supply systems over time. This PolyU innovation offers an effective and robust solution to a key industry pain point, notes a press communicate from the University.

The groundbreaking hydrogel cooling technology was developed by a PolyU team led by Prof Yan Jinyue Jerry, Chair Professor of Energy and Buildings, together with

Dr Liu Junwei, Research Assistant Professor of the Department of Building Environment and Energy Engineering. The team's research showed that after applying the hydrogel coating to solar panels, hot-spot temperatures could be lowered by up to 16°C, with the power output increased by as much as 13%. When applied to “rooftop and building-integrated photovoltaic (BIPV) systems,” the hydrogel coating is expected to mitigate nearly half of the power losses caused by hot spots, significantly improving the long-term stability and efficiency of solar photovoltaics for building electricity supplies.

Prof Yan said, “Our hydrogel cooling technology effectively addresses the hot-spot issues in solar panels without the need to modify existing circuit designs. It is cost-effective and user-friendly, making it suitable for various urban settings. Taking Hong Kong

and Singapore as case studies, our team anticipates potential annual power generation increases of 6.5% and 7.0%, respectively. The estimated payback periods are notably short at just 4.5 years and 3.2 years. On a global scale, this innovation has the potential to offset approximately 50% of power generation losses caused by hot spots in BIPV systems, demonstrating its pivotal contribution to the advancement of solar energy technology.”

The impact of hot spots on

existing research that investigated 3.3 million photovoltaic panels, 36.5% exhibited thermal defects with the defective modules registering an average temperature increase of over 21°C, accelerating the ageing and degradation of solar panels. The PolyU hydrogel coating not only delivers excellent cooling performance but also demonstrates outstanding durability, making it suitable for long-term outdoor use.

Dr Liu added, “Our team has combined the natural polymer



Findings from the PolyU research team showed that applying this hydrogel coating to solar panels could reduce hot-spot temperatures by up to 16°C and enhance power output by as much as 13%.

'hydroxyethyl cellulose' and the fibrous material 'leafy cotton thread' with the hydrogel matrix to address the critical challenges of cracking and shrinkage,

solar photovoltaic systems demands our attention, as they not only reduce power generation efficiency due to the elevated operating temperatures, but also pose potential fire risks in severe cases. According to

which affect conventional hydrogels during prolonged use. Traditional hydrogels can experience volumetric shrinkage of up to 46% after extended use, whereas our innovation significantly reduces cracking and shrinkage, limiting the volumetric shrinkage rate to 34%. Looking ahead, we hope to build upon this hydrogel evaporative cooling technology to advance the development and popularisation of emerging photovoltaic technologies.”



Prof Yan Jinyue Jerry, Chair Professor of Energy and Buildings (second from right), together with Dr Liu Junwei, Research Assistant Professor of the Department of Building Environment and Energy Engineering, led a team in developing a hydrogel coating that enhances the cooling performance of solar panels to increase power generation efficiency.

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Global growth milestone: AMPP reaches 40,000 members worldwide

In January 2026, the Association for Materials Protection and Performance (AMPP) announced that it reached a significant organizational milestone. Now with more than 40,000 members worldwide, this milestone underscores growing demand across the globe for technical expertise, standards, and professional connections within the corrosion and protective coatings industries, notes a post from AMPP.

This milestone reflects AMPP's continued global growth and its role in supporting professionals who protect critical infrastructure, industrial assets, and the built environment every day.

AMPP members play an active role in shaping the association's technical direction — convening at conferences, contributing to standards and publications, and advancing industry priorities through collaboration and advocacy.

"Reaching 40,000 members is a powerful signal of the value this community delivers to industry and society," says Alan Thomas, CEO of AMPP. "Our members are the reason AMPP exists. By working together toward shared goals, they advance safety, reliability, and performance across infrastructure systems worldwide. This milestone represents not just growth, but the collective impact our members make every day."

AMPP's membership growth has been especially strong internationally, driven by

expanding chapter engagement; student participation; and access to globally relevant standards, training, and certification pathways.

"Our members don't just belong to AMPP — they actively shape the organization and the industry," says Rebecca Griebel, senior director of user experience at AMPP. "From developing standards and serving as instructors and volunteers to mentoring students and sharing field expertise, members are at the center of everything we do. Their daily work strengthens asset integrity, improves performance, and elevates professional practice worldwide."

Member impact and organizational growth highlights

AMPP's growth to 40,000 members is supported by continued investment in member value and global engagement.

These initiatives include:

- Restored access to all current AMPP standards for members, reinforcing AMPP's commitment to technical excellence and knowledge sharing.
- 180 AMPP chapters worldwide, including 124 professional chapters and 56 student chapters, to support local engagement and leadership development.
- Significant international chapter growth, including the AMPP Gujarat Student Chapter in India, which recently surpassed 550



PHOTO: AMPP

members.

□ Member-driven conferences and technical events, including the AMPP Annual Conference + Expo, where thousands of professionals convene annually to share expertise, advance standards, and shape the future of the industry.

□ Expanded advocacy and technical engagement in critical sectors, including maritime and defense, where AMPP members are helping address workforce needs, asset protection challenges, and evolving industry standards.

□ The launch of the AMPP Knowledge Hub, which provides members with access to more than 80 years

of trusted technical content — much of it created, reviewed, and maintained by AMPP members.

□ Ongoing expansion of training, certification, and professional development programs supporting workforce development across multiple industries.

AMPP continues to unite professionals from around the world under a single organization dedicated to protecting assets, advancing performance, and supporting the people who make that work possible.

For more information about AMPP's membership and global engagement, visit www.ampp.org.

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CHINACOAT2026: A global coatings platform for technology exchange and business development worldwide

CHINACOAT2026 will be held from November 11 to 13, 2026 at Area A of the China Import and Export Fair Complex in Guangzhou, P.R. China. Since its inception in 1996, CHINACOAT has grown into a global coatings platform for technology exchange and business development worldwide. This year marks its 30th anniversary, underscoring three decades of commitment to supporting industry growth, innovation and global collaborations, notes a press release from the organization.

According to The Business Research Company, the global paints and coatings

market reached US\$248.1 billion in 2025 and is projected to grow to US\$336.0 billion by 2030, at a CAGR of 6.5%. Asia Pacific remains the largest and fastest-growing coatings market, accounting for more than one-third of global revenue. China continues to drive demand through rapid urbanization, infrastructure investment, expansion of the EV industry and adoption of sustainable building materials. Exhibiting at CHINACOAT places businesses at the centre of this strategic and rapidly expanding region.

Guangzhou sits at the heart of the Guangdong-Hong

Kong-Macao Greater Bay Area, one of the world's most dynamic economic regions. In 2025, the GBA's GDP surpassed RMB¥15 trillion, which ranks it among the world's top 10 economies. Growth is expected to continue through 2026, driven primarily by advanced manufacturing, new energy vehicles, semiconductors, green building materials and smart infrastructure. CHINACOAT offers exhibitors direct access to this thriving hub, enabling them to leverage cross-border trade opportunities and broaden their customer base.

China's 15th Five-Year Plan, beginning in 2026, highlights sustainability, smart manufacturing and advanced materials as key drivers of industrial transformation. Exhibiting at CHINACOAT2026 enables companies to showcase innovations that support these priorities, including low VOC and waterborne coatings, energy-efficient production processes and advanced functional materials. By presenting solutions that

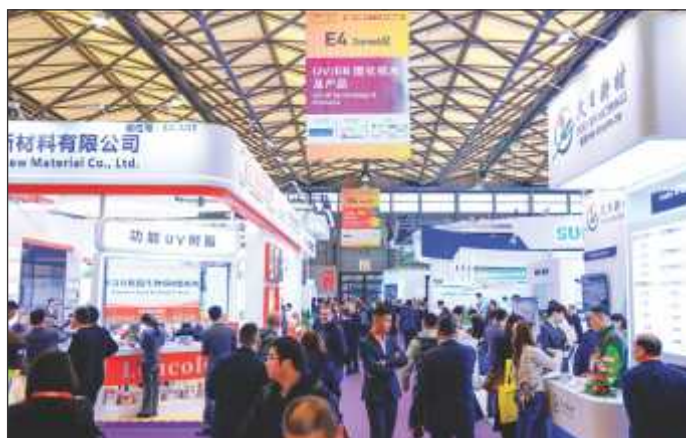
address both policy goals and industry needs, exhibitors can strengthen their positioning in China's coatings market and forge stronger connections with downstream sectors undergoing modernization.

A proven global platform

Over the past 30 years, CHINACOAT has evolved into a global platform for exhibitors to present new technologies, strengthen brand visibility and connect with decision-makers face-to-face. The 2025 Shanghai edition set new records, attracting 45,024 visitors from 125 countries / regions and hosting 1,464 exhibitors from 30 countries / regions. As CHINACOAT enters its 30th year, the exhibition will continue to create important opportunities for exhibitors to connect, grow and collectively contribute to the industry's development.

To learn more about CHINACOAT2026, visit www.chinacoat.net and follow them on Facebook, X, LinkedIn and YouTube to stay updated.

PHOTOS: CHINACOAT2026



Since its inception in 1996, CHINACOAT has grown into a global coatings platform for technology exchange and business development worldwide.

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Asia Pacific Maritime 2026 concludes with strong turnout, product launches and inking of partnerships

The 19th Asia Pacific Maritime (APM) held its largest-ever edition in Singapore, April 25 – 27, 2026, welcoming 19,431 attendees, alongside more than 819 exhibitors from 41 regions and countries, including 20 pavilions, and 112 speakers from across the globe, notes a press release from the organizers.

Amid the strong turnout, APM saw a significant number of announcements, covering product launches and the inking of partnerships, signalling strong momentum for advancing the industry and underscoring the industry's unwavering confidence in Asia's premier maritime event and conference.

Yeow Hui Leng, Group Project Director of APM, said: "The numerous deals and partnerships announced at the event underscore APM's role beyond that of a maritime marketplace; it also serves as a platform for showcasing best-in-class innovations and setting the stage for solutions that will shape the future of the industry. We thank our partners for their longstanding support and trust in APM as the premier meeting point for global and regional players – one that fosters meaningful dialogue, bold collaboration, and strategic partnerships that will propel the maritime sector to greater heights."

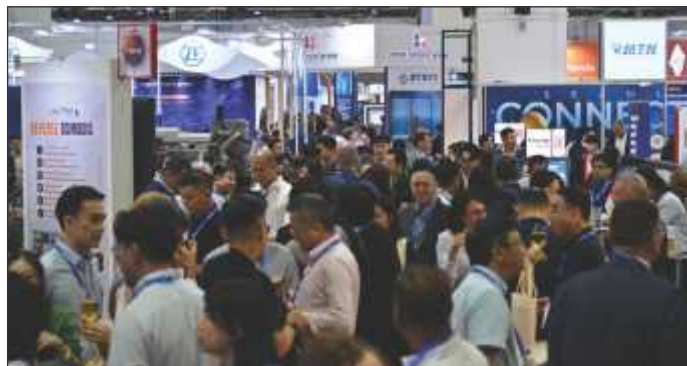
This year's event brought together key decision-makers from across Asia, including shipowners and shipyards. Notably, the Indonesian

National Shipowners' Association (INSA) led a delegation of 60 shipowners representing 20 shipping lines. Carmelita Hartoto, Chairwoman of the Indonesian National Shipowners' Association (INSA), said, "INSA is delighted to be back at APM. As a long-standing partner of APM, we truly value the opportunity for Indonesian shipowners to engage in productive conversations with global solution providers and industry leaders, forge new partnerships, and connect with industry forerunners. I am confident that the connections and insights gained at APM will shape Indonesia's growing maritime industry and drive innovation in vessel operations."

A myriad of deals, showcases, and partnerships that focused on driving zero emissions with next energy innovations were announced, including:

- Forming of industry partnerships led by VC Power, including collaboration with Bureau Veritas Marine Singapore on promoting battery technology as a practical and sustainable energy solution, with DNV Singapore for joint development of marine battery training programs; and with Chengrui Power Technology (Shanghai) and Contemporary Amperex Technology Co., Limited to advance marine battery supply and integration.

- A collaboration partnership to advance next-generation



APM 2026 attendees on the exhibition floor.

hybrid-electric fleet technology for offshore wind support vessels was signed between Siemens Energy and Marco Polo Shipyard.

- Partnership formalized between Bureau Veritas, Beng Hui Marine Electrical, and Penguin International marked the debut of Bureau Veritas' Type-Approved PWR+ Power Management and Digital Monitoring System on Penguin International's new series of compact crewboats for the oil and gas industry.

Next energy in focus, driving net-zero resolutions

Amid the delay in adopting IMO's net-zero framework and the oil and gas trade disruption caused by current geopolitical conflicts, it has become more crucial to empower decision-makers with a broader range of energy sources and more efficient solutions. The focus on next energy at APM 2026 has become an extremely timely conversation.

The conference posited that conversations on alternative fuels need to continue to

progress, despite uncertainty in formal regulatory adoption, especially given the concerns over energy sovereignty.

One message was clear across the various panels – the industry needs to emphasize fuel optionality, because the direction towards net-zero has not changed.

APM 2028: Powered by next energy and technological innovations

Next energy and technological innovations have become strategic necessities in today's maritime industry. The conversations at the conference saw technology providers, shipowners and industry experts convene to explore practical pathways to enable cleaner and more efficient operations. As the industry continues to balance tighter emissions rules, greater fuel uncertainty, and pressure to build resilient supply chains, APM will return for its 20th edition March 22 – 24, 2028, diving deeper into next-generation innovations that drive the future of vessels, the solutions for tomorrow.



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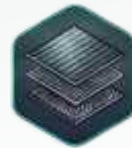
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PaintExpo:

Worldwide relevant and irreplaceable

Real projects, lively discussions, tangible energy – PaintExpo showcased its most dynamic side in 2026. In the exhibition halls, there were lively discussions, contacts were established and deals were done, fuelled by high visitor numbers and an international trade audience. The atmosphere: electric. And perhaps most surprisingly: in the midst of a challenging economic climate, a clear sense of optimism prevailed, paired with a determination to take the next steps proactively. “Despite industrial action in aviation and challenging economic conditions, PaintExpo 2026 was a resounding success. We have shown once again that the world's leading trade fair for industrial painting technology is the sector's most powerful driving force and an indispensable platform,” declares Markus Geisenberger, Managing Director of Leipziger Messe.

With 10,200 visitors from 68 countries as well as 425 exhibitors from 30 countries, it is clear that the tenth edition was a huge success, attracting visitors from all over the world. It is a must-attend event for first-time visitors and existing customers. Almost 45 percent of visitors do not attend any other trade fair. “I am very pleased with the high level of public interest we received at PaintExpo 2026. As in previous years, our stand had consistently high visitor numbers, and we held many productive, high-level discussions. I'm particularly impressed by the high proportion of international visitors,” says Michael Müller, CEO of the WAGNER Group.

PaintExpo has further boosted its international standing: the proportion of international exhibitors rose from 48 to 52 percent, which also impacted the visitor profile. Almost 40 percent of visitors came from abroad, turning the trade fair into a global hub for the industry. Trade visitors from 68 countries use the platform to gain insights into companies from 30 different countries, establish international business contacts and break into new markets. This strong global presence promotes the international exchange of expertise and innovation. This is also confirmed by Thomas Querfurth, Sales Coordinator Germany at HangOn: “There's simply no other event where you can meet all the necessary trades and discuss the latest technology across three exhibition halls in just a few days. And we're talking about companies from countries ranging from Japan to the USA.”

Innovation is shaping the industry: this year's event focused on sustainable, energy-efficient and digitalized painting processes in the areas of powder coating, liquid painting, dip coating and electroplating. Automation and the use of artificial intelligence also dominated events, reflecting the industry's current need to simplify processes for users, redefine standards and boost flexibility. Numerous global and trade fair premieres demonstrated how companies can make their processes both more cost-effective and environmentally friendly. “In-person interaction is particularly important to us



In the exhibition halls, there were lively discussions, contacts were established, and deals were done, fuelled by high visitor numbers and an international trade audience.

and cannot be replaced digitally, because it is only through one-to-one conversations that our technologies, solutions and services can be made tangible and comprehensible. But PaintExpo is also important to us as a trend barometer. Here we can decide which future areas of application to explore,” adds Matthias Haarer, Managing Director of Eisenmann.

A platform for networking and business development: PaintExpo 2026 not only impressed attendees with its comprehensive range of products and solutions, but also as a communication and business platform for decision-makers and managing directors, with two out of three visitors among the top decision-makers in their companies. In-depth technical discussions, tangible project initiatives and a lively exchange between suppliers and users shaped the event – a key factor in its success and the basis for the high levels of satisfaction among exhibitors and visitors at previous events. 89 percent of exhibitors say they achieved the goals they set for their participation in PaintExpo. “Simply put,

PaintExpo manages to bring the entire industry to Karlsruhe and present a comprehensive showcase of surface technology. PaintExpo is the most important trade fair for Krautzyberger,” explains Thomas Weidmann, Managing Director of Krautzyberger GmbH.

Focus on nurturing young talent: on the final day of the trade fair, PaintExpo 2026 also focused on nurturing young talent with its Career Day. Students and graduates gained specific insights into industrial painting technology and were able to speak directly to companies. A compact program of talks, guided tours of the trade fair and networking provided practical guidance on entry-level opportunities and career paths. This is how PaintExpo is strengthening its role as a platform for connecting professionals and industry.

All eyes already on the next event: the next PaintExpo will take place from 25 to 28 April 2028 and is already attracting interest. Many exhibitors are already taking advantage of the rebooking option during the current trade fair to secure their preferred stand location well in advance.

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JUN 10 – 12, 2026	COATINGS EXPO VIETNAM 2026	Saigon Exhibition & Convention Centre, Ho Chi Minh City, Vietnam	VEAS	T: (+84) 28 38488561 E: info@veas.com.vn W: coatings-vietnam.com
JUN 11 – 13, 2026	EXPO PAINT AND COATINGS 2026	Chennai Trade Centre, Chennai, India	Toredo Fairs India Pvt Ltd	T: (+91) 9341928011 E: info@expopaintcoating.in W: expopaintcoating.in
JUN 17 – 19, 2026	PAINTISTANBUL 2026	Istanbul Expo Center, Türkiye	CNG Expo	M: +90 (0) 549 749 55 05 E: info@cngexpo.com W: paintistanbul.net
JUN 17 – 20, 2026	SURFACE & COATINGS 2026	BITEC, Bangkok, Thailand	RX BITEC	T: +66 268672222 E: contactcenter@rxbitec.com W: surfaceandcoatings.com
JUN 25 – 26, 2026	COATINGS FOR AFRICA	Sandton Convention Centre, Johannesburg, South Africa	DMG Events	T: +971 4 445 3773 E: paddyyoneill@dmgevents.com W: coatingsforafrica.com
AUG 24 – 26, 2026	MARINE COAT 2026	Dhahran Expo Centre, Al Khobar, Kingdom of Saudi Arabia	Aldrich	T: 971 (0) 4 279 0900 E: marketing@marinecoat.com W: marinecoat.com
AUG 26 – 28, 2026	ASIA PACIFIC COATINGS SHOW	Jakarta International Expo, Indonesia	DMG events	T: +971 4 445 3773 E: paddyyoneill@dmgevents.com W: asiapacificcoatingsshow.com
SEP 06 – 10, 2026	EUROCORR 2026	Convention Centre, Dublin, Ireland	European Federation of Corrosion	T: +44 (0) 2074517303 E: eurocorr2026@iom3.org W: eurocorr2026.org
SEPT 21 – 22, 2026	4 TH M.E. ASSET INTEGRITY MANAGEMENT CONFERENCE AND SHOWCASE 2026	Rixos Marina, Abu Dhabi, UAE	AIMCOS Expo	T: +971 483 74300 E: register@aimcosexpo.com W: aimcosexpo.com
SEPT 28 – 30, 2026	MIDDLE EAST COATINGS SHOW	Dubai Exhibition Centre, Expo City Dubai, UAE	DMG Events	T: +971 4 445 3773 E: paddyyoneill@dmgevents.com W: middleeastcoatingsshow.com
OCT 29 – 31, 2026	CORCON 2026	Noida, UP, India	AMPP India Chapter	T: (91-22) 25797354 E: info@naceindia.org W: corcon.org
NOV 11 – 13, 2026	CHINACOAT2026	China Import and Export Fair Complex, Guangzhou, Guangdong, China	Sinostar	E: info@sinostar-intl.com.hk W: chinacoat.net
NOV 19 – 21, 2026	CII SURFACE, COATING SHOW 2026	Auto Cluster Exhibition Centre, Chinchwad, Pune, India	CII	T: (91-22) 24931790 Ext 456 E: vaibhav.baraskar@cii.in W: cii.in
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