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3	03 30 00	Cast-in-Place Concrete
	03 40 00	Precast Concrete
4	03 70 00	Mass Concrete
	04 05 16	Masonry Grouting



MasterGlenium® 3030

Full-Range Water-Reducing Admixture

Description

MasterGlenium 3030 ready-to-use full-range water-reducing admixture is a patented new generation of admixture based on polycarboxylate chemistry. MasterGlenium 3030 admixture is very effective in producing concretes with different levels of workability including applications that require the use of self-consolidating concrete (SCC). MasterGlenium 3030 admixture meets ASTM C 494/C 494M requirements for Type A, water-reducing, and Type F, high-range water-reducing, admixtures.

Applications

Recommended for use in:

- Concrete where high flowability, high-early and ultimate strengths and increased durability are needed
- Self-consolidating concrete
- Concrete where normal, mid-range, or high-range water-reduction is desired
- Concrete where normal setting times are required
- Strength-on-demand concrete, such as 4x4™ Concrete
- Pervious concrete
- Self-consolidating grout

Features

- Dosage flexibility for normal, mid- and high-range water reduction
- Reduced water content for a given slump
- Produces cohesive and non-segregating concrete mixture
- Increased compressive strength and flexural strength performance at all ages
- Providing faster setting times and strength development
- Enhanced finishability and pumpability

Benefits

- Providing economic benefits to the entire construction team through higher productivity and reduced variable costs

Performance Characteristics

The dosage flexibility of MasterGlenium 3030 admixture allows it to be used as a normal, mid-range and high-range water reducer.

Mixture Data: 600 lb/yd³ of Type I cement (360 kg/m³); slump, 8.5-9.25 in. (210-235 mm); non-air-entrained concrete; dosage rate adjusted to obtain 25-30% water reduction.

Setting Time

Mixture	Initial Set (h:min)	Difference (h:min)
Plain	4:24	–
Conventional high-range water-reducer	6:00	+ 1.36
MasterGlenium 3030 admixture	5:00	+0.36

Compressive Strength

Mixture	1 Day		7 Days	
	psi	MPa	psi	MPa
Plain	1700	12	4040	28
Conventional high-range water-reducer	3460	24	6380	44
MasterGlenium 3030 admixture	4120	28	7580	52

Slump Retention - in. (mm)

Mixture	Minutes		
	15	30	45
Plain	8.5 (215)	8.5 (215)	7.5 (200)
Conventional high-range water-reducer	8.5 (215)	4.25 (110)	3.5 (90)
MasterGlenium 3030 admixture	9.25 (235)	9.25 (235)	8.25 (210)

Rate of Hardening: MasterGlenium 3030 admixture is formulated to produce normal setting characteristics throughout its recommended dosage range. Setting time of concrete is influenced by the chemical and physical composition of the basic ingredients of the concrete, temperature of the concrete and ambient conditions. Trial mixtures should be made with actual job materials to determine the dosage required for a specified setting time and a given strength requirement.

Guidelines for Use

Dosage: MasterGlenium 3030 admixture has a recommended dosage range of up to 3 fl oz/cwt (195 mL/100 kg) for Type A applications, 3-6 fl oz/cwt (195-390 mL/100 kg) for mid-range use and up to 18 fl oz/cwt (1,170 mL/100 kg) for Type F applications. The dosage range is applicable to most mid- to high-range concrete mixtures using typical concrete ingredients. However, variations in job conditions and concrete materials, such as silica fume, may require dosages outside the recommended range. In such cases, contact your local sales representative.

Mixing: MasterGlenium 3030 admixture can be batched with the initial mixing water or as a delayed addition. However, optimum water reduction is generally obtained with a delayed addition.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterGlenium 3030 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of MasterGlenium 3030 admixture.

Compatibility: MasterGlenium 3030 admixture is compatible with most admixtures used in the production of quality concrete, including normal, mid-range and high-range water-reducing admixtures, air-entrainers, accelerators, retarders, extended set control admixtures, corrosion inhibitors, and shrinkage reducers.

Do not use MasterGlenium 3030 admixture with admixtures containing beta-naphthalene-sulfonate. Erratic behaviors in slump, slump flow, and pumpability may be experienced.

For directions on the proper evaluation of MasterGlenium 3030 admixture in specific applications, contact your local sales representative.

Storage and Handling

Storage Temperature: MasterGlenium 3030 admixture should be stored above freezing temperatures. If MasterGlenium 3030 admixture freezes, thaw at 45 °F (7 °C) or above and completely reconstitute by mild mechanical agitation. **Do not use pressurized air for agitation.**

Shelf Life: MasterGlenium 3030 admixture has a minimum shelf life of 12 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterGlenium 3030 admixture has been exceeded.

Packaging

MasterGlenium 3030 admixture is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterGlenium 3030 admixture

Additional Information

For additional information on MasterGlenium 3030 admixture or its use in developing concrete mixes with special performance characteristics, contact your local sales representative.

Master Builders Solutions, a brand of MBCC Group, is a global leader of innovative chemistry systems and formulations for construction, maintenance, repair and restoration of structures. The Admixture Systems business provides advanced products, solutions and expertise that improve durability, water resistance, energy efficiency, safety, sustainability and aesthetics of concrete structures, above and below ground, helping customers to achieve reduced operating costs, improved efficiency and enhanced finished products.

Utilizing worldwide resources, the Master Builders Solutions community of experts are passionate about providing solutions to challenges within all stages of construction, as well as the life cycle of a structure. At Master Builders Solutions we create sustainable solutions for construction around the globe.

Limited Warranty Notice

Master Builders Solutions Admixtures US, LLC ("Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

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MasterPolyheed 844R

Mid-Range Water Reducing and Retarding Admixture

POLYHEED 844R

DESCRIPTION

MasterPolyheed 844R admixture is a multicomponent, chloride free, mid-range waterreducing admixture, formulated to produce:

- A mid range water reduction (5 a 15%) an excellent performance through a wide range of mid-range slump, particularly in 150 a 200 mm slump in concrete placement
- Extended setting time throughout the recommended dosage
- Improved workability, pumpability and finishability, even in concrete mixes containing reduced amount of cementitious materials and/or concrete mixes containing fly ashes
- Development of comparable compressive strength to that of the water-reducing and retarding admixtures
- Better performance with wide range types of cements, fly ashes, slag and aggregates

MasterPolyheed 844R admixture meets ASTM C 494 for retarding Type A admixtures, Type B for water-reducing admixture and Type D for waterreducing and retarding admixtures.

RECOMMENDED USE

All concrete where extended setting characteristics, and superior workability, and finishability qualities are desire, particularly in hot weather. MasterPolyheed 844R can be used for architectonic or colored concrete.

MasterPolyheed 844R can be used with airentaining, as long as it meets ASTM, AASHTO and CRD specifications.

FEATURES

- Reduces water content for a given slump
- Improved time setting features
- Increased development of compressive and flexural strengths

BENEFITS

MasterPolyheed 844R helps produce a quality concrete with the following special benefits:

- Superior workability and pumpability in warm weather applications
- Reduced bleeding and slump
- Improves finishability in flat, formed or extruded surfaces.
- Consistent performance in concrete mixes with low, mid-range of 150 to 200mm and high concrete slumps.

MasterPolyheed 844R is effectively used by itself or as part of an admixture systems of BASF Construction Chemicals.

PERFORMANCE CHARACTERISTICS

Note: The data shown are based on controlled laboratory tests. Reasonable variations from the results shown here may be experienced as a result of differences in concrete making materials and jobsite conditions.

Setting time				
Concrete Mix	Initial setting (Hrs:Mins)		Difference (Hrs:Mins)	
Nominal	2:40			
MasterPolyheed 844R				
400 ml/100 kg	3:50		+1:10	
600 ml/100 kg	5:15		+2:35	

Compressive Strength				
Concrete Mix	7 days		28 days	
	MPa	%	MPa	%
Nominal	15.1	100	21.6	100
MasterPolyheed 844R				
400 ml/100 kg	21.6	143	27.9	129
600 ml/100 kg	25.1	166	32.8	152

Note: The data shown are based on controlled laboratory tests. Reasonable variations from the results shown here may be experienced as a result of differences in concrete making materials and jobsite conditions.

MasterPolyheed 844R

Performance characteristics and mixture data

325 kg of Type I cement by m³, slump 165.0 mm, non-air-entrained concrete, concrete temperature 30°C, ambient temperature 32°C.

Dosage

MasterPolyheed 844R mid-range water-reducing admixture has a recommended dosage range of 350 a 900 ml / 100 kg of cementitious material for most concrete mixtures. BASF Construction Chemicals does not recommend the use of dosages outside the recommended range without trial testing. Consult your local BASF Construction Chemicals sales representative for assistance in determining the dosage for optimum performance.

Non-Chloride, Non-Corrosive:

MasterPolyheed 844R is a mid-range water-reducing and will neither initiate nor promote corrosion of reinforcing and prestressing steel embedded in concrete, or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of MasterPolyheed 844R.

PACKAGING

MasterPolyheed 844R is supplied in 208L drums, 1040L totes and by bulk delivery.

STORAGE

MasterPolyheed 844R admixture has a minimum shelf life of 12 months, if maintained in original sealed packaging, stored under dry and fresh area. Avoid storing directly under the sun or in high temperatures.

SAFETY

See the Material Safety Data Sheet of this product, or contact your local BASF sales representative.

The aforesaid information represents the best of our knowledge and is not based solely on the lab work but also on the experience in the field.

However, given the different factors that affect the results, we provide this information without warranty and without assuming any manifested liability.

MasterPolyheed 844R

Additional Information

For additional information on MasterPolyheed 844R admixture or its use in developing concrete mixtures with special performance characteristics, contact your local sales representative.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

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