



QUALITY MANUAL

International tolerances and deviations

DANSK WILTON



Quality, international tolerances and deviations by Dansk Wilton

At Dansk Wilton we always set the highest standards when it comes to quality.

Throughout our company we focus on quality in our procedures and our products. High quality raw material is the first condition of a high quality carpet. The philosophy of Dansk Wilton is to produce uniform high quality carpets and we follow close procedures set to reach our targets. We select only raw materials of the finest quality for our carpet production. Based on our many years of experience, we use a yarn blend of 80% wool and 20% antistatic treated nylon (only white/white blend). The wool gives the carpet its special unmistakable beauty, contributes to a healthy indoor climate and makes the carpet a delight to walk on. The nylon impacts durability and long life.

Our general technical carpet descriptions are a supplement to our General Sales Terms and Conditions. Our technical descriptions also describe and explain the technical basis for delivered carpets with regard to construction, measures, designs, testing methods etc.

As regards fire approval, all our carpet qualities are IMO approved by notified body "Det Norske Veritas". The Wheel mark logo shows that our carpets conform to parts 2 & 5 of the FTP Code requirements for spread of flame and smoke/toxicity required by the IMO (International Maritime Organization) under SOLAS. The Wheel mark is also accepted by the United States Coastguard and the USCG approval numbers are printed on the carpet packs/rolls.

All internal procedures in Dansk Wilton are regulated through our quality system following the procedures and guidelines of ISO 9001. Each year Dansk Wilton is audited by notified body "Det Norske Veritas" that guarantee that all our internal procedures and systems are according to ISO 9001.

Please refer to the below descriptions for general information on carpet data and tolerances and distortion.

For specified construction data it applies that with regard to test method and margins they are all in accordance with the valid European EN 1307 standard for textile floorings, hereunder:



Carpet Construction data and international tolerances:

The total weight of the carpet indicates the total weight of the carpet in g/m². The European EN 1307 standard allows following tolerances: +/- 15 %. Internally in Dansk Wilton our strategy is +15/-0% as tolerance. The pile weight of the carpet indicates the yarn weight over the primary backing and is indicated in g/m². The European EN 1307 standard allows following tolerances: +15/-10 %.

The pile height of the carpet indicates the pile's height from the primary backing. The European EN 1307 standard allows following tolerances: +/- 1 mm.

Length and width

Lengths are allowed to be delivered with a margin of +/- 2,0 %.

Width: Standard widths are allowed to be delivered with a margin of +/- 3 cm for 400 cm & 500 cm roll width.

Pattern data and international tolerances:

Textile floorings are flexible floorings based on natural raw materials and like all production processes there are certain margins which have to be taken into consideration during installation. The following criteria describe the max. margins within which it should be possible for a professional fitter to complete a satisfactory installation.

The tolerances are all valid trade standards in accordance with CEN/TS 14159:2007 which is a Technical Specification Document prepared by the European Committee for Standardization and thus valid for all members of the EU.

Pattern repeats (Figure 1): The given repeat sizes indicate the measures of the dominating pattern both in the length and width direction. These are used when calculating additional material in case of possible joints of two or more lengths.



Pattern displaced: Pattern fitting over full width is not guaranteed.

When joining repeats in the length direction the margin is as follows:

- Pattern repeat length between 0 cm and 10,0 cm: max. 2% of the pattern repeat
- Pattern repeat length between 10,0 cm and 100 cm: max. 1% of the pattern repeat
- Pattern repeat length larger than 100 cm: max. 1% of the pattern repeat

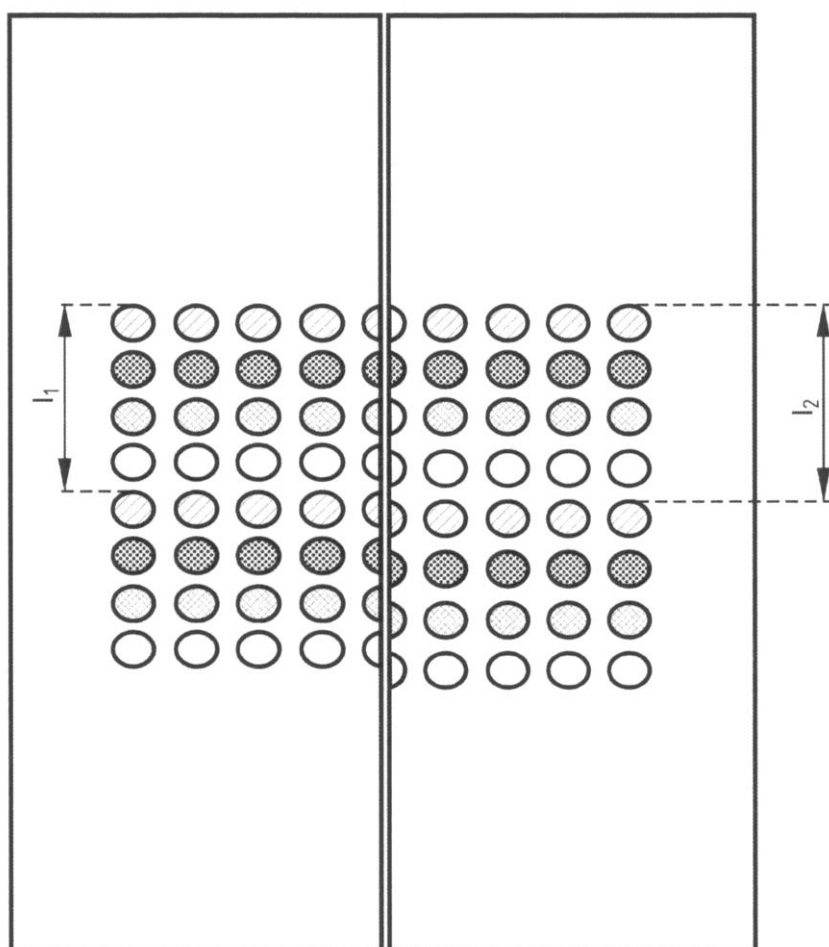


Figure 1 — Pattern repeat

Bowing (Figure 2): Pattern curves appear where the repeat is on level in both sides but where the pattern is curving across the width of the carpet. The margin is $\pm 1\%$ per m of roll width

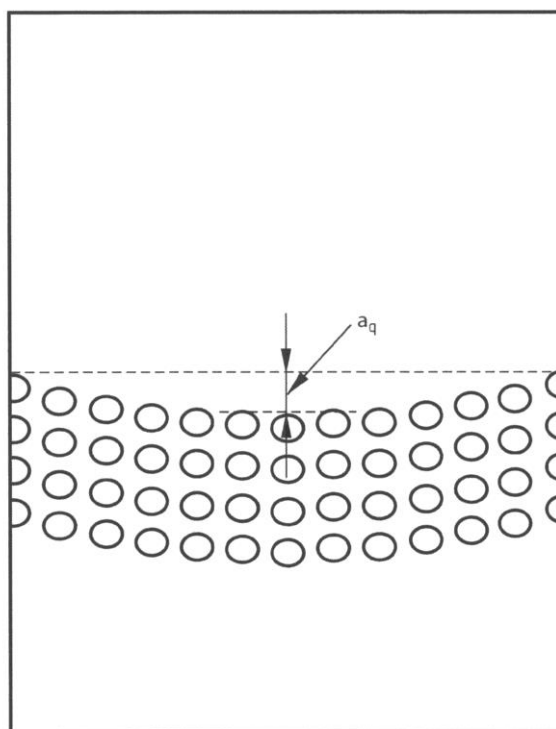


Figure 2 — Bowing

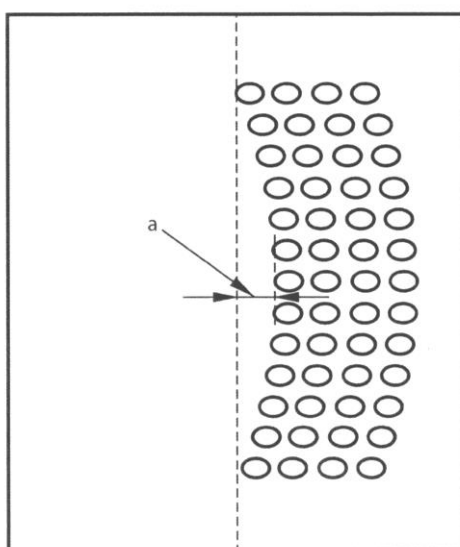


Figure 3 — Linear pattern distortion

Linear pattern distortion (Figure 3): Pattern curves appear where the repeat is on level in the length middle but where the pattern is curving along the length of the carpet. The margin is max 10 mm for 2,0 meter nominal length.

Diagonal skewing (Figure 4): Diagonal skewing appears where the repeat is out of level but staggered from one side to another. The margin is $\pm 1\%$ of carpet width with a maximum of 1,0 cm per m of roll width.

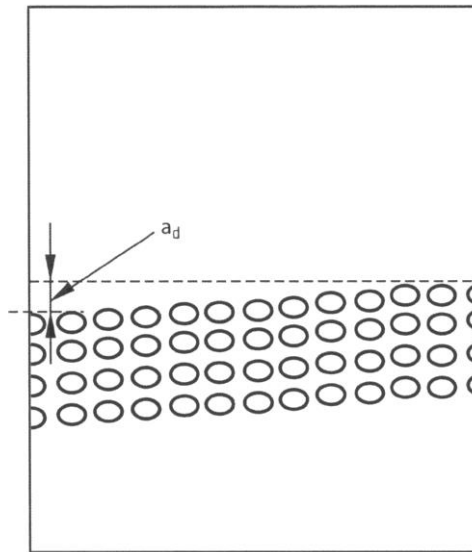


Figure 4 — Skewing

Arcing of the carpet roll (Figure 5): Maximum deviations of the arcing of the carpet roll is as follows:

- Axminster carpets: max. 0,5% of the total carpet length
- Tufted carpets: max. 0,3% of the total carpet length

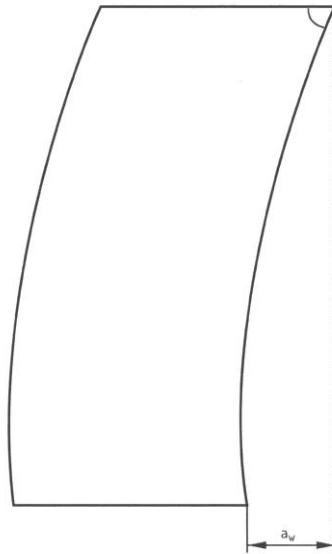


Figure 5 — Maximum deviations of the arcing of the carpet roll

Color deviation:

Because of production conditions certain color variations are inevitable. It is therefore possible that a shown sample (PEG board, color pom) may show minor difference of color to material delivered. It is important that rolls which are to be fitted together must be from the same dye batch.

It is the responsibility of the carpet fitter to examine the rolls prior to installation. In certain cases there may be minor color differences from roll to roll. This can be due to minor color differences in the production, different pile direction together with local conditions on the premises.

Dansk Wilton maintains an international network of preferred partners and dedicated fitter teams. These fitters are considered to be experts in the installation of woven and tufted carpets and are trusted by Dansk Wilton. Please contact us if you want us to do the carpet installation.

Other relevant elements:

Shading: By the notion shading is understood as "water spot like formations" on the pile caused by changes in the original pile direction. In these areas where the pile of the carpet is moved in different directions, the light reflection of the material is altered. This is not a defect in the manufacturing process. In consequence shading is not acceptable as a valid claim.



Pile reversal: This appears where changes in the pile direction occur within a limited area compared to the original pile direction. The cause is unknown but it is generally considered not to be due to any defect in the manufacturing process. In consequence pile reversal is not acceptable as a valid claim.

Installation: Dansk Wilton recommends that our customers choose Dansk Wilton certified carpet fitters with a in depth understanding on installation of woven and tufted carpets. Carpet designs are getting more and more complex and difficult to install – this requires a very detailed planning prior to installing the carpet. Using non trained carpet fitters can damage the visual appearance of the carpet and also damage the life span of the carpet.

Testing methods in Dansk Wilton:

Dansk Wilton has access to an advanced test lab in order to examine, test and validate the performance of our products. As stated earlier, all our carpet data is in accordance with the valid European EN 1307 standard for textile floorings. For the compliance with the EN 1307, Dansk Wilton regularly conducts tests on our carpets using international approved testing methods. Some of our tests include the following:

ISO 1765 Total carpet thickness.

ISO 1766 Pile height above primary backing structure.

ISO 1763 Number of tufts and/or loops per m².

ISO 8543 Total weight of all pile yarn including that in the backing structure and weight of pile yarn over the backing structure.

ISO 105-B02 Color fastness to light – a standard blue dyed wool fabric is exposed to light in a Xenon arc lamp fade machine. Assessments for change in color of the test sample are made against the standard blue dyed wool resulting in a number between 1 and 8, where 8 is the best mark.

EN - ISO 105 - X12 Color fastness to rubbing – this test gives an indication of the dye fastness of a carpet in friction with test fabrics.

EN - ISO 105 - E01 Color fastness to water - this test gives an indication of the dye fastness of a carpet when getting wet.



ISO 4949 Tuft anchorage – this test measures how well the tufts are held in the carpet structure. This is especially important on stairs where there is a risk of tufts being “kicked” out.

DS/EN 1963 General wear test by using the Lisson machine ("walking machine").

ISO 10361 General wear test by using the Vettermann drum with assessment of changes in carpet appearance.

DS/EN 1814 Determination of resistance to fraying of edges.

Delaminating test – how well is the backing attached to the pile.

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...delivering the difference.