From 01.Juli.2006 the revised version of the EN 13329 took effect. This new standard replaces the previous one.

In recent years the quality of laminate floor coverings has been assessed almost exclusively on the basis of the Taber values. However, this method of testing is far from adequate for quality assessment purposes because according to EN 438-2.6 it allows deviations of up to 40%. Furthermore, this test method assesses only the abrasion resistance of the laminate element surface using a rotating sand paper to grind away the overlay until the first sign of damage to the printed pattern sheet becomes apparent. The precision of the workmanship, the properties of the substrate or the balancer used - to mention only some of the decisive quality criteria - are not taken into account at all.

Nowadays grossly inflated Taber values can be achieved without any technical difficulties with the result that the Taber value has become, primarily a marketing tool but it should be realised, however that **no essential quality improvement** is achieved through these manipulations. Indeed, this situation has led to confusion and misrepresentation in the market. With the new EU Standard, regulations which do not permit any false interpretations, will be established throughout Europe.

The new EU-Standard is so designed that it fits in with the already existing EN 685 which classifies floor coverings in general - such as linoleum and plastic flooring - into service categories according to their durability. The various service categories are depicted by means of pictograms. Laminate floor coverings for **application domestic (21-23) and commercial (31-33) areas** are taken into account. This easy-to-understand system enables an easy comparison between products from different manufacturers, and at the same time ensures that the selected products are of the right durability for the intended end use.

Kaindl Laminate Flooring has already reoriented to comply with the future standard. In other words, our products are already being finished in accordance with these requirements, are subjected to continuous monitoring, and are marked for identification purposes accordingly.

The Taber Test according to EN 438-2.6 has been considerably modified in the new EU-Norm for Laminate Flooring with regard to the following points:

- The sandpaper is to be changed every 200 revolutions (previously every 500 revolutions). The abrasion counts will be enormously reduced as a result.
- Abrasive paper Taber Type S-42 or equivalent is to be used.
- Precise definition of the IP (Initial Point) by means of clearly arranged posters and the use of Tappi-Charts to determine the size of the abraded surface. The IP is reached immediately damage over an area of at least 0.60 m^2 is suffered by the printed design in two quadrants and over an area of max. 0.60 mm^2 in a third quadrant.
- The test is concluded with the reaching of the IP. Accordingly, the definitions FP (Final Point), and AT (Average Taber) are no longer of any significance.

Intensive analyses conducted by the expert team showed that measuring errors are reduced to 10% when this modified method is used. The European Norm imposes the following classification requirements for the various service categories according to EN 685:

Classification Requirements of the Service Categorie							**Test**
Service Category	Domestic			Commercial			EN 685
	Light	Normal	Heavy	Light	Normal	Heavy	
Category	21	22	23	31	32	33	
Pictograms							
Resistance to abrasion	AC 1 IP ≥ 900	AC 2 IP ≥1.500	AC 3 IP ≥2.000		AC 4 IP ≥4.000	AC 5 IP ≥6.000	Appendix E
Impact Resistance Newton/mm drop height	IC 1 10N/800mm 8N/1000mm				IC 2 15N/1000 12N/1400	IC 3 20N/1200 15N/1600	Appendix F EN 438 2.11/2.12
Resistance to Stains Groups 1 & 2 Group 3	Grade 4 Grade 3	Grade 5 Grade 4					EN 438 2.15
Resistance to cigarette burns	--	Grade 4					EN 438 2.18
Effect of a furniture leg	--	No visible damage when tested with test object Type O					EN 424
Effect of a castor chair	--	No visible change or damage					EN 425
Thickness Swelling	≤20%			≤18%			Appendix G

AC = Abrasion classes
W = Abrasion classes (Wear)
* = This methode is not for the determination of abrasion resistance according to pr EN 13329
IC = Impact classes

General Requirements	
Thickness of the element	Average +/-0.5 mm relative to the nominal value Maximal, minimal ≤ 0.5 mm
Length of top layer	No measured value because following values exceed nominal value: Length < 1500 mm: ≤ ± 0.5 mm Length > 1500 mm: ≤ ± 0.3 mm/m
Width of top layer	Average ≤ 0.1 mm relative to the nominal value Maximal, minimal ≤ 0.2 mm
Length of side in case of square elements	Average ≤ 0.1 mm relative to the nominal value Maximal, minimal ≤ 0.2 mm
Right-angle gauge test	Maximal ≤ 0,2 mm
Straightness of edge (longitudinal distortion)	Maximal ≤ 0,3 mm/m
Flatness of the element	Maximal individual values: Width concave ≤ 0.15 %, convex ≤ 0.20% Length concave ≤ 0.50 %, convex ≤ 1.00 %
Joint openings between adjacent elements	Average ≤ 0.15 mm Maximal ≤ 0.20 mm
Difference in elevation between adjacent elements	Average ≤ 0.10 mm Maximal ≤ 0,15 mm
Dimensional distortion with climatic changes	Length and width ≤ 0.9 mm
Lifting resistance	> 1,00 N/mm²
Lightfastness, EN 20105	Blue Wool Scale, Part B02, no worse than 6 Grey Scale, Part A02, no worse than 4
Indentation after constant load, EN 433	No visible change ≤ 0.01 mm in test with straight steel cylinder, diameter 11.30 mm
Surface appearance, EN 438	Minor surface defects are permissible
Moisture content on leaving works, EN 322	4 to 10 % Deviations within any one delivery ± 1.5%

Should you require any further information concerning the new European Standard or have any general requests in this context, please contact us:

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