

Entwicklungs- und Prueflabor Holztechnologie GmbH \cdot Zellescher Weg 24 \cdot 01217 Dresden \cdot Germany

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> Dresden, 17/01/2022 MPET

Test Report Order No. 2721647

Client:

Hemel Boya ve Kimya Sanayi Anonim Şirketi

I.D.O.S.B VAKUM CAD. NO: 25

Tuzla,34957, Istanbul

Turkey

Date of order:

21/12/2021

Order:

Determination of the resistance against scratching

according to DIN EN 15186:2012-07 procedure B

Contractor:

EPH - Laboratory Surface Testing

Engineer in charge:

Dipl.-Ing. (FH) M. Peter

Dipl.-Ing. Andreas Möschner

Adous Mosiles

Head of Laboratory Surface Testing

The test report contains 3 pages. Any duplication of extracts requires the written permission of EPH. The test results refer exclusively to the material tested.





1 Task

The Development and Examination Laboratory for Wood Technology Ltd. (EPH) was instructed by Hemel Boya ve Kimya Sanayi Anonim Şirketi in ISTANBUL, TÜRKEI to carry out the resistance against scratching according to DIN EN 15186:2012-07 procedure B.

NOTE: All numerical values within this document are given with a comma as decimal.

2 Material

For testing, the following samples were selected by the client and sent to the contractor with receipt at EPH laboratory on: 05/01/2022

The oak wood veneer floor covering samples were labelled as follows:

Variant 1:

HEMEL SL 1C Solvent Based Wood Floor Finish

Variant 2:

3 Determination of the resistance to scratching according to DIN EN 15186:2012-07

The test was carried out according to DIN EN 15186:2012-07 procedure B with an universal Scratch Tester Model 413 from the company Erichsen, Germany (test equipment OF-45).

Performance of the tests:

12/01/2022 - 13/01/2022

4 Results

Variant	Scratching load in N, which causes an in itself closed mark					
	= 1	Single values		Mean value		
1	0,8	0,7	0,8	0,8		
2	1,4	44	1/4	7.5		

5 Evaluation

There are no normative requirements for the scratch resistance of lacquered parquets. Therefore the results will be compared with the "IHD-Requirement Profile for wooden flooring - lacquered surfaces" in level of use (from LU 1: private living area with moderate use... till ...LU 6: area of object with heavy use) as following:

Variant	Property	Result	Assessment* in level of use (LU)
1	Resistance against scratching	0,8 N	1 - 4 are fulfilled
2	according to DIN EN 15186:2012-07 procedure B	42.8	t observatelijker

^{*} Statements on conformity assessment/classification are made on the basis of the measurement results obtained. Measurement uncertainties are not included in the assessment (ILAC G8 03/2009 "Guidelines on the Reporting of Compliance with Specification" Section 2.7).

	Minimum requirements for the levels of use					
Property	1	2	3	4	5	6
Scratching resistance	≥ 0.5 N		≥ 0,7 N		≥ 1.0 N	
according to DIN EN 15186:2012	2 U,3 N		2 0,7 N		2 1,0 N	

Level of use (LU) for lacquered wooden floorings according to IHD-profile:

LU	Area of use	Intensity / description of requirements	Examples for use		
1	domestic	moderate / rare use	Bedroom, guestroom		
2	domestic	general / often normal use	Living room, dining room, studying room		
3	domestic	heavy / intensive use	Entry-corridor, children's room, kitchen		
4	commercial	moderate / rare use	Hotel room		
5	commercial	general / often normal use	boutiques or small stores		
6	commercial	heavy / intensive use	department stores and multipurpose halls		

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Engineer in charge