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Test Report
Order No. 2718083

Client:	Boen Parkett Deutschland GmbH & Co. KG Industriestraße 41 23879 Mölln
Date of order:	12 February 2018
Order:	Determination of the slip resistance (Pendulum test) according to CEN/TS 15676:2008 and determination of anti-slip property according to DIN 51130:2014
Contractor:	EPH – Laboratory Surface Testing
Engineer in charge:	Dipl.-Ing. (FH) M. Peter

Dr.-Ing. Rico Emmler
Head of Laboratory Surface Testing

The test report contains 5 pages. Any duplication, even in part, requires written permission of EPH. These test results are exclusively related to the tested material.

1 Task

The Development and Examination Laboratory for Wood Technology Ltd. (EPH) was instructed by Boen Parkett Deutschland GmbH & Co. KG in Mölln, to determination of the slip resistance (Pendulum test) according to CEN/TS 15676:2008 and determination of anti-slip property according to DIN 51130:2014.

2 Material

For the test, the client has sent following variants of parquets
(entrance at the EPH laboratory 22 February 2018):

Variant	Product	Dimensions in mm	Coating	Strukture
1	OAK ANDANTE 3-Stab	2200 x 215 x 14	Live Satin Lack	polished
2	OAK ANDANTE Landhausdiele	2200 x 138 x 14	Live Matt Lack	polished
3	OAK ANDANTE Landhausdiele	2200 x 138 x 14	Live Natural Öl	polished
4	OAK FINALE 3-Stab	2200 x 215 x 14	Live Pure	polished
5	OAK ANDANTE Landhausdiele	2200 x 138 x 14	Live Natural Öl	brushed
6	OAK ANDANTE Landhausdiele	2200 x 138 x 14	Live Pure	brushed
7	OAK ANDANTE 3-Stab	2200 x 215 x 14	Live Matt Lack	brushed
8	OAK ANDANTE 3-Stab	2200 x 215 x 14	Live Natural Öl	brushed
9	OAK PALE WHITE Planked	2200 x 138 x 14	Live Pure pigmented	brushed

3 Test performance

3.1 Determination of the slip resistance (Pendulum test) according to CEN/TS 15676:2008

The determination of the slip resistance (Pendulum test) was carried out according to CEN/TS 15676:2008 with a Portable Skid Resistance Tester SRT 5800 (Fig. 1).
The test was carried out under laboratory conditions at 23 °C and 50 % relative humidity.

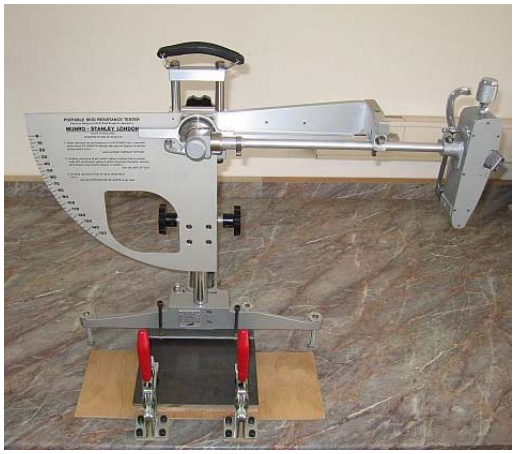

Fig. 1: Portable Skid Resistance Tester SRT 5800

The test was carried out on 01 March 2018.

3.2 Test of other property - Determination of anti-slip property according to DIN 51130:2014

The determination of the anti-slip property was carried out according to DIN 51130:2014 (Workrooms and fields of activities with slip danger, Walking method – Ramp test) and BGR 181, updated version from October 2003 (Fig. 2).

A test person with test shoes, in an upright position, is walking on the floor covering to be tested in forward and backward direction while the inclination of the flooring is increasing from the initial horizontal state until an acceptance angle (inclination angle) is reached. The determination of that angle will be done after coating the floor covering with lubricant before. The average inclination angle is used to assess the degree of slipping. Subjective influences are limited by a calibration procedure.

Fig. 2: Calibration board on Ramp test device

The test was carried out on 14 March 2018.

4 Results

4.1 Slip resistance (Pendulum test) according to CEN/TS 15676:2008

Variant	Pendelum value according to DIN CEN/TS 15676:2008 (USRV*)										
	Single values										Mean value
1	32	33	30	30	33	31	34	31	29	30	31
2	35	35	34	32	37	33	33	32	33	32	33
3	55	61	65	61	57	53	63	62	58	55	59
4	75	86	91	97	87	95	96	90	87	84	89
5	43	42	45	47	46	43	46	47	46	46	45
6	88	93	92	92	91	93	88	89	93	89	91
7	53	46	39	48	52	51	58	46	45	45	48
8	40	37	37	41	41	41	42	41	39	42	40
9	90	94	86	93	96	90	90	88	92	91	91

* USRV = Method for the determination of the slip resistance of unpolished surfaces

4.2 Anti-slip property according to DIN 51130:2014

Variant	Angle of acceptance in °	Anti slip class*
1	2,5	-
2	7,7	R9
3	11,8	R10
4	17,7	R10
5	14,7	R10
6	24,0	R11
7	9,6	R9
8	14,1	R10
9	21,8	R11

* Angle of acceptance for class R9 above 6° until 10°
Angle of acceptance for class R10 above 10° until 19°
Angle of acceptance for class R11 above 19° until 27°
Angle of acceptance for class R12 above 27° until 35°
Angle of acceptance for class R13 above 35°

5 Evaluation

The tested products can be classified regarding to the tested property
"Slip resistance – Pendulum test" according to EN 14342:2013 (CE-labelling) as follows:

Variant	Property	Result	Declaration according to EN 14342:2013
1	Slip resistance according to DIN CEN/TS 15676:2008	Pendelum value 31 USRV	31 USRV
2		Pendelum value 33 USRV	33 USRV
3		Pendelum value 59 USRV	59 USRV
4		Pendelum value 89 USRV	89 USRV
5		Pendelum value 45 USRV	45 USRV
6		Pendelum value 91 USRV	91 USRV
7		Pendelum value 48 USRV	48 USRV
8		Pendelum value 40 USRV	40 USRV
9		Pendelum value 91 USRV	91 USRV

5.2 Anti-slip property according to DIN 51130:2014

The tested variants 2 and 7 meet the requirements of BGR 181, updated version October 2003, Table 1 and of DIN 51130:2014, for the anti slip class R9 (angle of acceptance 6° - 10°).
The tested variants 3, 4, 5 and 8 meet the requirements for the anti slip class R10 (10° ≤ angle of acceptance ≤ 19°) and the variants 6 and 9 meet the requirements for the anti slip class R11 (19° ≤ angle of acceptance ≤ 27°).
The tested variant 1 don't meet the requirements according to BGR 181, updated version October 2003, table 1 and according to DIN 51130:2014, for the minimum anti slip class R9 (angle of acceptance 6° until 9°).

Dipl.-Ing. (FH) M. Peter
Engineer in charge