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Abrasion test of lacquer on parquet flooring

Test Objects

Two samples of multi-layer parquet (approx. 200 × 600 mm). The wear layer for both samples were oak. The samples were designated accordingly:

Sample	Designation
1	LM-flooring Silk matt
2	Kährs silk matt (EK CORSIKA LACK)

The samples were sent by the commissioner and arrived at SP Technical Research Institute of Sweden on April 28 2008.

Commission

Abrasion test on floor lacquer according to:
SS 92 35 09 *Floorings - Determination of abrasion resistance*
Classification according to:
SS 92 35 51 T1 *Floorings - Classification*

Test performance

Determination of abrasion resistance was carried out with falling sand method. The abrasion cycle corresponded to 100 revolutions. Thereafter, the abraded area was first smeared with an aqueous solution of 1 % methylene blue and then wiped off with a dry cloth. A visual inspection was performed to indicate the wear through of the varnish and the exposed sub-layer. The test was terminated when the lacquer was worn through in 50% of the abraded area.

Treibacher Alodur ESK-240 (EN 14354) batch: 888679 was used as abrasive material. Two sets of abrading wheels (Taber S-39) batch: 60514 were used. Calibration on acrylic plate (Taber S-38) resulted in a wear loss of 97,5 mg / 2 000 revolutions.

The test were performed on May 28 2008.

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Classification according to SS 923509 T1

Class	Interval when 50 % of the varnish is removed in the abraded area
2	Below 600 revolutions
3	600 - (1 000) revolutions
4	1 000 - (1 600) revolutions
5	1 600 - (2 400) revolutions
6	2 400 - (3 600) revolutions
7	3 600 - (7 200) revolutions
8	At least 7 200 revolutions

Comment

In some cases it has been obvious that the use of newer wheel sets (S-39, from Taber Industries) have resulted in lower wear results. Therefore the reported "achieved class" must be used with precaution. However, since the same wheel sets have been used when testing, the results in this report can be used to compare the tested samples with one another. Only one determination for each material were made hence no information about standard deviation etc can be given.

Results

Number of revolutions until 50 % of the varnish is removed in the abraded area.

Test material	Result	Achieved class
LM-flooring Silk matt	1 200	4
Kährs silk matt	1 400	4

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