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Test Report No.: **305.984-e** Date: **2006-02-21**

Testing of resistance against staining of HPL-Compact-Laminates FUNDERMAX Interior Plus

Client:	FunderMax GmbH Industriezentrum NÖ Süd 2355 Wiener Neudorf Austria
Subject:	HPL-Compact-Laminates FUNDERMAX Interior Plus
Task:	Testing of resistance to staining
Order:	Order of 2006-02-06
Date of sampling:	– – –
Location of sampling:	No samples taken by ***ofi*** staff; samples provided by ***ofi***'s client
Receipt of samples:	2006-01-23
Ref:	Dr. Sey.

1 SCOPE OF WORK

According to the order the samples provided were to be tested for

- Resistance against staining on the basis of EN 438-2
  - exposure time 24 hours / exposure at room temperature
  - selection of testing substances as requested by the client and listed in Table 1

2 SCOPE OF APPLICATION

The results given in this test report have been obtained under the specific conditions of the tests. They are not the only criteria for assessing the product in question and its suitability for a specific purpose of application.

3 SAMPLE MATERIAL

The client submitted for the purpose of testing pieces of two different types of laminates (2x 4 sheets of about 30 x 20 cm) with decor-layer on both surfaces and labelled as follows:

- "FUNDERMAX Compact Interior Plus, Dekor 0085 weiss", thickness 6 mm (white)
- "FUNDERMAX Compact Interior Plus, Dekor 0074 pastellgrau", thickness 6 mm (pastel grey)

4 TESTS

The test was carried out from 2006-02-07 to 2006-02-10 in the technical department within the scope of competence of the authorised signatories according to the ***ofi*** QM manual. The test conditions are described below.

Testing of resistance to staining:

Test standard.....	EN 438-2 *(accredited test procedure)*
Test procedure	in the style of procedure A
State of test specimens.....	as delivered
Number of specimens.....	1 sample for each type of covered medium
Conditioning of specimens...	in test atmosphere (23 °C / 50 % RH) for >16 h
Contact surface	sheet surface with decorative side
Contact period	24 hours in each case
Test temperature.....	23 °C in each case
Test substances	various chemicals as selected by the client according to Table 1

The test substances (approx. 1 ml each) were applied to the sample surfaces with the tested surface devided in small test areas of approx. 50 × 40 mm each enclosed in a sealing bead, and let to affect the surfaces. The test substances were applied and acted upon the specimens at room temperature (approx. 23°C). After application the areas with the test substances were covered by a glass plate.

After a time of exposure of about ten hours the test areas were checked visually and new test substances were applied. After 24 hours in each case, the residues of the test substances were removed and the panel surfaces were cleaned without scrubbing. Afterwards, the surfaces were assessed according to the rating scale given in EN 438-2.

5 RESULTS

The results are summarized in Table 1.

Table 1: Evaluation of testing of resistance to staining – contact to chemicals

Testing field No.	Substance concentration	Rating*) FUNDERMAX Compact Interior Plus	
		white	pastel grey
1	phosphoric acid 10%	5	5
2	hydrochloric acid 10%	5	5
3	acetic acid 10%	5	5
4	hydrogen peroxide 30%	5	5
5	sodium hypochlorite 13%	5	5
6	sodium hydroxide solution 25%	5	5
8	acetone	5	5
9	n-butyl acetate	5	5
10	Toluene	5	5
11	ammonia solution 25%	5	5
12	hexane	5	5
13	tetrahydrofurane	5	5
14	ethanol	5	5
15	trichloroethane	5	5

*) Rating scale:

Rating 5 ..... no visible change
Rating 4 ..... slight change of gloss and/or colour, only visible at certain viewing angles
Rating 3 ..... moderate change of gloss and/or colour
Rating 2 ..... marked change of gloss and/or colour
Rating 1 ..... surface distortion and/or blistering

This test report no. **305.984-e**

comprises 4 sheets with 1 table(s), 0 figure(s), 0 appendix(es).

Testing staff

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