

Handled by, department
Ingvar Demker
Chemistry and Materials Technology
+46 10 516 53 08, ingvar.demker@sp.se

Fürstenberg Amfi-Top Ltd.
Svein Fürstenberg
Lacplesa 75-29
Riga LV-1011
Lettland

Testing of a desktop/countertop surface

Test Object

One piece of a desktop/countertop surface (approx. 1500 x 500 mm). The sample was spare material from a fire test at SP Technical Research Institute of Sweden. It arrived at SP/KMp on June 15 2009. According to the commissioner the tested sample is a composite material designated **Amfi-Top**, consisting of 70 % ATH (aluminiumtrihydrate) and 30% modified acrylic polyester. The product has a nominal mass per unit area of 16 kg/m² and a nominal thickness of 10 mm.

Manufacturer: Nordic Solid Surface Produktionsgesellschaft mbH in Nordhausen, Germany.

Commission

Testing of acid resistance.

The test was performed according to paragraph 26 *Resistance to staining* in EN 438-2 *High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (Usually called Laminates) - Part 2: Determination of properties*.

The chemicals used were the following five substances:

- Concentrated hydrochloric acid (HCl) 37 %
- Concentrated perchloric acid (HClO₄) 70 %
- Concentrated sulfuric acid (H₂SO₄) 95-97 %
- Concentrated nitric acid (HNO₃) 65 %
- Sodium hydroxide (NaOH) 8M

The contact time was 24 hours.

Test Performance

Approximately 2 ml of each substance was applied on the test surface. Each substance was applied at two different areas of the surface. The surface was kept levelled at 23 ± 2 °C. After 24 hours the surface was rinsed with tap water and dried.

SP Technical Research Institute of Sweden

Postal address
SP
Box 857
SE-501 15 Borås
SWEDEN

Office location
Västeråsen
Brinellgatan 4
SE-504 62 Borås
SWEDEN

Phone / Fax / E-mail
+46 10 516 50 00
+46 33 13 55 02
info@sp.se

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After the test the test pieces were cleaned with a cotton cloth moistened with ethanol, no other cleaning agents or abrasives has been used. The test pieces were examined on a rotary viewing table under a lamp with a specified colour temperature and light intensity. The remaining visible stain or damage was rated according to the following scale:

Rating	Effect on surface of test piece
5	No visible change
4	Slight change of gloss and/or colour, only visible at certain viewing angles
3	Moderate change of gloss and/or colour
2	Marked change of gloss and/or colour
1	Surface distortion and/or blistering

Test Result

	Test area 1	Test area 2
Hydrochloric acid (HCl) 37 %	Rating 5	Rating 5
Perchloric acid (HClO ₄) 75 %	Rating 4	Rating 4
Sulfuric acid (H ₂ SO ₄) 95-97 %	Rating 4	Rating 4
Nitric acid (HNO ₃) 65 %	Rating 3	Rating 3
Sodium hydroxide (NaOH) 8M	Rating 3	Rating 3

SP Technical Research Institute of Sweden Chemistry and Materials Technology - Polymer Technology

Stefan Almström
Technical Manager

Ingvar Demker
Technical Officer