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## To whom it may concern

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# Test report of Technical laboratory Chemical resistance of AM1800TopX

Report Number UB-15-004

The test results refer to the tested batches only.  
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## 1. Task

A testing against chemical resistance should be done on AM1800TopX

## 2. Sample description

Samples were cutted from production samples and labeled. Until the deposition of chemicals a protective foil is on the tested surface.

## 3. Test methods

Verification in accordance to DIN 68 861 part 1

Chemical to be tested were applied on cutted AM1800TopX samples, covered with a petri dish and stored for 24 hours at room temperature, blotted dry and stored without coverage for further 24 hours. The surfaces were afterwards visually evaluated for a possible chemical attack and is a change visible the test is repeated with a shorter test time.

### Evaluation:

- 5 no change
- 4 minor change (only visible under reflected light)
- 3 moderate change (visible from several viewing directions)
- 2 significant change in colour or gloss; slight change of structure (swelling, fibre raising, cracking, blistering)
- 1 strong change

## 4. Results

Testing medium	Dwell time	Result
Acetic acid (96%)	24 h	5
Citric acid	16 h	5
Sodium carbonate	16 h	5
Ammonia water	16 h	5
Ethyl alcohol	16 h	5
White wine, red wine, liqueur wine	16 h	5
Beer	16 h	5
Coke	16 h	5
Coffe	16 h	5

Black tea	16 h	5
Black currant juice	16 h	5
Condensed milk	16 h	5
Water	24 h	5
Gasoline	16 h	5
Acetone	16 h	5
Ethyl-butylacetate	16 h	5
Butter	16 h	5
Olive oil	16 h	5
Mustard	16 h	5
Table salt	16 h	5
Disinfectant	16 h	5
Stamping ink	16 h	5
Cleaning agent	16 h	5
Cleaning solution	16 h	5
Saltwater	6 h	5
Ketchup	16 h	5
Paraffin wax	24 h	5
Paraffin oil	24 h	5
Ethanol (96%)	24 h	5
Salt acid (37%)	24 h	5
Sulfuric (20%)	24 h	5
Hydrogen peroxide (35%)	24 h	5
Acetonitrile	24 h	5
Tetrahydrofurane	24 h	5
Dimethylamine	24 h	5
Xylol	24 h	5
Triethylamine	24 h	5
Cyclohexane	24 h	5
Cyclohexanol	24 h	5
Phenol	24 h	5
Potassium hydroxide (10%)	1 h / 24 h	5 / 3
Sodium hydroxide (10%)	1 h / 24 h	5 / 3
Fe(acac) <sub>2</sub> (sat. aqu. solution)	24 h	5
Tris (Acethylacetonato) Iron (III) (sat. aqu. Solution)	24 h	5
Cer(IV)-Sulfate solution Cer(SO <sub>4</sub> ) <sub>2</sub>	24 h	5
Copper (II)-chloride CuCl <sub>2</sub> (10%)	24 h	5
Methanol	24 h	5
Iodine	24 h	5 / 3
Butyl acetate	24 h	5
Ethyl acetate	24 h	5
Ammonia solution 25%	24 h	5

Chloroform	24 h	5
Cyclo pentane	24 h	5
Dichloromethane	24 h	5
Potassiumpermanganate	1 h / 24 h	5 / 3
n-Hexane	24 h	5
Nitric acid 30%	1 h / 24 h	5 / 0 <sup>(a)</sup>

<sup>(a)</sup> After 3 hour of contact a clear color marking is visible, which is fully reversible within 48 hours; the color degradation after 6 hours exposure time as declines, but remains with an easy marking.

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