

Ministry of Agriculture & Fisheries
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CHEMICAL RESISTANCE OF SYNTHETIC SURFACING PRODUCTS

Products Tested

2000X (FORMICA)
Avonite
Corian
Euroform
Fountainhead
Marblo

All samples were white or near-white. These would tend to show visually the least damage.

Tests

Materials were exposed to chemicals continuously for 8-16 hours.
Chemicals were covered to prevent evaporation.

Damage Assessment

Chemicals were removed after the exposure time of 8-16 hours and damage was assessed visually.

Materials were again visually checked a day later to determine if damage was permanent.

Damaged areas were moderately abraded with a 'Brillo' pad to determine whether the damage was removable.

Chemicals Used for Testing

- | | |
|--------------------------|--|
| <i>Acids</i> | - all concentrated laboratory grade |
| <i>Sodium hydroxide</i> | - saturated solution in water |
| <i>Hydrogen peroxide</i> | - Hydrogen Peroxide Solution B.P., 40 volume |
| <i>Iodine</i> | - Iodine Tincture B.P., containing 2.5% w/v iodine and 2.5% w/v potassium iodide |
| <i>Bleach</i> | - 'Janola', containing 3.15% w/v sodium hypochlorite |
| <i>Ammonia</i> | - 'Scrubbs Cloudy Ammonia', containing 5% w/v ammonium hydroxide |
| <i>Paint stripper</i> | - 'Polystrippa', containing 73% v/v dichloromethane and 15% v/v methanol |
| <i>Solvents</i> | - all were 100%, laboratory grade, except ethanol which was 95% v/v in water, laboratory grade. Petroleum ether was 40°-60° C boiling range. |

Summary of Chemical Resistance Ratings

	2000 X (FORMICA)	Avonite	Corian	Euroform	Fountainhead	Marblo
Hydrochloric Acid	L	L	L	R	R	L
Nitric Acid	M	M	M	-	M	M
Sulphuric Acid	E	E	E	-	S	M
Acetic Acid	R	R	M	-	R	R
Sodium Hydroxide	L	L	L	R	L	L
Hydrogen Peroxide	R	R	R	R	R	R
Iodine	M	M	M	M	M	M
Bleach	R	R	R	R	R	R
Ammonia	R	L	R	R	R	R
Paint Stripper	E	E	S	E	M	M
Dichloromethane	E	E	S	-	M	L
Ethyl Acetate	L	L	L	-	R	R
Chloroform	E	E	S	E	L	R
Ethanol	R	R	R	-	R	R
Acetone	L	L	M	L	R	R
Methanol	L	R	R	R	R	R
Acetonitrile	M	L	L	R	R	R
Petroleum Ether	R	R	R	R	R	R
Overall Summary	6R 5L 3M 0S 4E	6R 6L 2M 0S 4E	6R 4L 4M 3S 1E	*8R 1L 1M 0S 2E	11R 2L 4M 1S 0E	11R 3L 4M 0S 0E
Relative Placing	6	5	4	3	2	1

* Subjected to 12 tests only

Abbreviations:

- R = Resistant
- L = Light damage
- M = Moderate damage
- S = Serious damage
- E = Extreme damage

Detailed Assessments

Abbreviations: NVE = No visible effect

Damage Ratings:

R = Resistant
L = Light damage
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E = Extreme damage

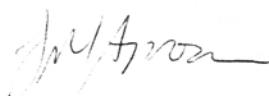
Removable with abrasion:

N = No
Y = Yes



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Technical Officers
MYCOTOXIC DISEASES GROUP

5/7/89



J M Sprosen