

## RESULTS FOR SPC CHEMICAL RESISTANCE GRADE ONLY

*Standard Grade results available upon request*

### CHEMICAL & STAIN RESISTANCE TESTING

CHEMICAL Tested	TEST method	SPC-CR RATING
Amyl Acetate	A	0
Ethyl Acetate	A	0
Acetic Acid, 98%	B	0
Acetone	A	0
Acid Dichromate, 5%	B	1
Butyl Alcohol	A	0
Ethyl Alcohol	A	0
Methyl Alcohol	A	0
Ammonium Hydroxide, 28%	B	1
Benzene	A	0
Carbon Tetrachloride	A	0
Chloroform	A	0
Chromic Acid, 60%	B	1
Cresol	A	1
Dichloroacetic Acid	A	1
Dimethylformamide	A	0
Dioxane	A	0
Ethyl Ether	A	0
Formaldehyde, 37%	A	0
Formic Acid, 90%	B	1
Furfural	A	0
Gasoline	A	0
Hydrofluoric Acid, 37%	B	0
Hydrofluoric Acid, 48%	B	1
Hydrogen Peroxide, 28%	B	0
Tincture of Iodine	B	1
Methyl Ethyl Ketone	A	1
Methylene Chloride	A	0
Monochlorobenzene	A	1
Naphthalene	A	0
Nitric Acid, 20%	B	0
Nitric Acid, 30%	B	0
Nitric Acid, 70%	B	0
Phenol, 90%	A	1
Phosphoric Acid, 85%	B	0
Silver Nitrate, Saturated	B	0
Sodium Hydroxide, 10%	B	0
Sodium Hydroxide, 20%	B	0
Sodium Hydroxide, 40%	B	0
Sodium Hydroxide, Flake	B	0
Sodium Sulfide, Saturated	B	0
Sulfuric Acid, 33%	B	0
Sulfuric Acid, 77%	B	0
Sulfuric Acid, 96%	B	0
Sulfuric Acid 77%, and Nitric Acid 70%, equal parts	B	0
Toluene	A	0
Trichloroethylene	A	0
Xylene	A	0
Zink Chloride, Saturated	B	0

After 24-hours exposure, areas are washed with water, then a detergent solution and finally with isopropyl alcohol. Materials are then rinsed with distilled water and dried with a cloth. Samples are numerically rated as:

**0 = No effect, 1 = Excellent, 2 = Good, 3 = Fair**

### TEST METHOD A

For volatile chemicals. A cotton ball saturated with the test chemical was placed in a one ounce bottle (10mm x 75mm test tube or similar container). The container was inverted on the test material surface for a period of 24 hours. Temperature of test: 73° +/-4°F (23° +/-2°C). This method was used for the organic solvents.

### TEST METHOD B

For non-volatile chemicals. Five drops (1/4cc) of the test chemical were placed on test material surface. The chemical was covered with a watch glass (25mm) for a period of 24 hours. Temperature of test: 73° +/-4°F (23° +/-2°C). This method was used for all chemicals listed below other than the solvents.

### PHYSICAL PROPERTIES TESTING

TEST Procedure	PROPERTY Description	SPC-CR RESULT Unit of Measurement
EN 438-2:10	Resistance to Surface Wear	≥150 Revolutions (Initial Point)
EN 438-2:21	Resistance to Impact	0.4 Indentation Diameter (mm) No Cracks or Scoring
EN 438-2:25	Resistance to Scratch	5 Rating (Based on Load)
EN 438-2:16	Resistance to Dry Heat (320°F)	5 Appearance (Rating)
EN 12721	Resistance to Wet Heat (212°F)	5 Appearance (Rating)
EN 438-2:12	Resistance to Immersion in Boiling Water	5 Appearance (Rating) 0.4 Mass Increase % 1.9 Thickness Increase %
EN 438-2:17	Dimensional Stability in Elevated Temperature	0.05 Longitudinal (Parallel) % 0.05 Transversal (Perpendicular) %
EN 438-2:26	Resistance to Staining (Appearance Rating)	5 Acetone 5 NaOH 5 Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> 3%)
ASTM G53/ EN 4382:27	Resistance to Color Change	5 Rating (Grey Wool Scale) >6 Rating (Blue Wool Scale)
EN 438-2:24	Resistance to Crazeing	5 Appearance (Rating)
ASTM 638-08/ EN ISO 178	Modulus of Elasticity	≥1.85e <sup>6</sup> psi
ASTM 790-08/ EN ISO 178	Flexural Strength	≥2.87e <sup>4</sup> psi
ASTM 638-08/ EN ISO 527-2	Tensile Strength	≥2.71e <sup>4</sup> psi
ASTM 792-08/ EN ISO 1183	Density	≥86.15 lbs/ft <sup>3</sup>

Appearance Rating: 1 = Worst - 5 = Best (no effect)