CRANE Kemlite®

A Crane Co. Company

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TECHNICAL DATA
6230
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CHEMICAL & STAIN RESISTANT TESTING

General Chemical Resistance

Where exposure to a chemical will be prolonged or at elevated temperatures, tests should be performed to prove the suitability of the product for that specific use.

Product	Dilute Acids (less than 30%)	Concentrated Acids (30% or more)	Weak Alkalis	Strong Alkalis	Chlorinated Solvents Aldehydes & Ketones Esters
Kemlite L-1062 panel Glasbord®-P panel Fire-X Glasbord® panel Kemply® panel (surface only) Glasbord REI panel	G to E	G to E	G	E	G to E
Key: E=excellent; G=good, probably acceptable; F=fair, test before using; P=poor, not recommended.					

Resistance To Specific Chemicals

General Notes:
- Ratings are based on a combination of visual observations, and mechanical strength test results.
- All testing was done at 77°F +/- 10°F. Performance ratings are not necessarily valid outside of that temperature range.
- Test ratings are based on white material; non-white panels could show additional visual changes.
- Test was run per Crane Kemlite product development procedure #8125: surface chemical resistance. In this procedure the chemicals are exposed to the surface of the panel for 7 days.

Ratings Key:

E (Excellent):	Suitable for use in most exposure conditions.
G (Good):	Probably suitable for use; testing under specific exposure conditions is suggested.
F (Fair):	Possibly unsuitable for use; testing under specific exposure conditions is recommended.
P (Poor):	Unsuitable for use in most exposure conditions.
C	Color change
NT	Not tested

Chemical	Panels	Sanigrid	General Comments
Acetic Acid, concentrated	E	E	
Acetic Acid, 5%	E	E	
Ammonium Hydroxide, concentrated	E	C	Caused Sanigrid® II to turn yellow
Ammonium Hydroxide, 10%	C	C	Caused both to turn yellow
Aniline	P[1]	C	Caused both to turn red
Bleach Solution	C	E	Caused panels to turn yellow
Citric Acid, 10%	E	C	Caused Sanigrid II to turn yellow
Detergent Solution	C	E	Caused panels to turn yellow
Distilled Water	E	E	
Ethyl Acetate	P[1]	E	
Ethyl Alcohol, 95%	C	NT	Caused panels to turn yellow
Ethyl Alcohol, 50%	G[1]	NT	
Formaldehyde	E	E	
Heptane	F	E	
Hydrochloric Acid, 10%	E	E	
Hydrogen Peroxide, 3%	C	E	Caused panels to turn yellow
Isooctane	G[1]	E	
Lactic Acid, 10%	E	E	
Mineral Oil	E	G	Sanigrid II absorbed some oil
Nitric Acid, 40%	E	C	Sanigrid II turned slight yellow/blue
Nitric Acid, 10%	E	C	Sanigrid II turned slight yellow/blue
Oleic Acid	E	G	Sanigrid II absorbed some oil

Chemical	Panels	Sanigrid	General Comments
Olive Oil	E		Sanigrid II absorbed some oil
Potassium Iodide Solution, 10%	E	G	Sanigrid II turned red
Soap Solution	E	C	
Sodium Chloride Solution, 10%	P[1]	E	Caused panels to turn yellow
Sodium Chloride Solution, 60%	P	E	
Sodium Hydroxide Solution, 10%	P	E	Caused panels to turn yellow
Sodium Hydroxide Solution, 1%	P	E	Caused panels to turn yellow
Sodium Hypochlorite Solution, 4-6%	E	E	
Sulfuric Acid, 30%	G[1]	NT	II
Sulfuric Acid, 3%	G[1]	E	
Toluene	G[1]	E	Caused panels to turn yellow
Transformer Oil	G[1]	NT	Sanigrid absorbed some oil
Turpentine	G[1]	G	

*This test data included surface tests for Glasbord-P with Surfaseal®, Fire-X Glasbord with Surfaseal, Kemlite L1062, Glasbord REI, and Sanigrid® II.
1 Mechanical properties were not strongly affected.

Stain Resistance To Food And Miscellaneous Products

Stain resistance of Glasbord-P with *Surfaseal*, Kemlite L-1062, Glasbord-REI is very similar:

Stain	Surface change	
	ASTM D2299[1] 120°F (50°C), 16 hrs.	ASTM D1308[2] 77°-86°F (25°-30°C), 24 hrs.
Blood (beef)	Superficial	Superficial
Brown Shoe Polish	Considerable	Considerable
Butter	Unaffected	Unaffected
Crayon	Superficial	Superficial
Mustard	Unaffected	Superficial
Oil (crankcase)	Superficial	Superficial
Potatoes (white)	Unaffected	Unaffected
Red Cabbage	Unaffected	Unaffected
Tea	Unaffected	Unaffected
Tomato Acid	Unaffected	Unaffected

Key: Unaffected = wipes off easily with damp cloth and mild soap; no color or surface change
Superficial = stain removed easily with water and/or mild abrasive
Considerable = stain not completely removable
1) ASTM D2299 tests stain resistance of applied coating
2) ASTM D1308 tests stain resistance of a product's natural surface

1•800•435•0080 ph.
1•815•467•8600 ph.
1•815•467•8666 fax
www.glasbord.com