

STONCLAD CHEMICAL RESISTANCE GUIDE

The purpose of this guide is to aid in determining the potential value of the Stonclad family surfacers when exposed to the damaging effects of corrosive chemical environments.

The test procedure used to determine the values listed is as follows:

Samples of the completely cured Stonclad were totally immersed in the chemicals listed for a period of 90 days at normal room temperatures (73°F/23°C). (This is an exceptionally severe testing method since most floors subject to these types of chemical spillages are “flushed down” periodically with water as part of the normal floor maintenance operation.)

The resultant resistance of Stonclad to the various chemicals is rated using the symbols listed in the Rating key. (It is recommended that normal “good housekeeping procedures” be used, including a daily flushing with clean water.)

RATING KEY

E – Excellent

G – Good

NR – Not Recommended

OS – Suitable for use where “occasional spillages” occur, when followed by immediate water flushing.

The data contained herein is based on laboratory tests performed under carefully controlled conditions. No warranty can be expressed or implied regarding the accuracy of this information, as it will apply to actual plant operational use. Plant operations vary widely, and the individual results obtained are affected by the specific conditions encountered, which are beyond our control.

Note: *Staining may occur depending upon length of exposure time.

Acids

Chemical	GS	PT	HT	UT	XP	HD
Acetic – 5%	G	G	E	E	G	G
Acetic – 10%	OS	OS	E	E	OS	OS
Acetic – 15%	NR	NR	G	E	NR	NR
Acetic – 20%	NR	NR	G	E	NR	NR
Acetic – 50%	NR	NR	OS	G	NR	NR
Acetic – Glacial	NR	NR	NR	G	NR	NR
Benzoic – 3%	E	E	E	E	E	E
Benzoic – Sat.	OS	OS	E	E	OS	OS
Boric – Sat.	E	E	E	E	E	E
Butyric – 10%	OS	OS	E	E	OS	OS
Chromic – 10%	G	G	G	G	G	G
Chromic – 20%	OS	OS	G	G	OS	OS
Chromic – 40%	NR	NR	NR	NR	NR	NR
Citric – 50%	OS	OS	G	E	OS	OS
Citric – Sat.	OS	OS	E	E	OS	OS
Cresylic – Sat.	OS	OS	G	G	OS	OS
Diglycolic – Sat.	G	G	G	G	G	G
Fatty – Sat.	G	G	E	E	G	G
Fluoboric – Sat.	G	G	OS	OS	G	G
Formic – 10%	OS	OS	OS	E	OS	OS
Formic – 50%	NR	NR	NR	G	NR	NR
Formic – over 50%	NR	NR	NR	OS	NR	NR
Heptanoic – Sat.	OS	OS	G	G	OS	OS
Hydrochloric – 15%	E	E	E	E	E	E
Hydrochloric – 37%	G	G	E	E	G	G
Hydrofluoric – 5%	G	G	G	G	OS	G
Hydrofluoric – 10%	OS	OS	OS	OS	OS	OS
Hydrofluoric – 15%	NR	NR	NR	NR	NR	NR
Hypochlorous – 5%	E	E	E	E	E	E

Acids (continued)

Chemical	GS	PT	HT	UT	XP	HD
Lactic – 20%	G	G	E	E	G	G
Lactic – over 20%	OS	OS	G	E	OS	OS
Maleic – 30%	G	G	E	E	G	G
Maleic – 40%	OS	OS	G	G	OS	OS
Maleic – Sat.	NR	NR	G	G	NR	NR
Monochloroacetic – 5%	G	G	E	E	G	G
Monochloroacetic – 10%	OS	OS	G	E	OS	OS
Monochloroacetic – 20%	NR	NR	OS	G	NR	NR
Nitric – 10%	E	E	E	E	E	E
Nitric – 20%	G	G	E	E	G	G
Nitric – 30%	OS	OS	G	G	G	OS
Nitric – 40%	NR	NR	NR	NR	NR	NR
Oleic – Sat.	E	E	E	E	E	E
Oxalic – Sat.	E	E	E	E	E	E
Pelargonic – Sat.	OS	OS	E	E	OS	OS
Perchloric – 35%	OS	OS	OS	OS	OS	OS
Phosphoric – 50%	G	G	E	E	G	G
Phosphoric – 70%	OS	OS	E	E	G	OS
Phosphoric – 85%	NR	NR	OS	OS	NR	NR
Picric – Sat.	OS	OS	G	E	OS	OS
Phthalic – Sat.	OS	OS	G	G	OS	OS
Succinic – Sat.	E	E	E	E	E	E
Sulfuric – 20%	E	E	E	E	E	E
Sulfuric – 50%	G	G	G	G	G	G
Sulfuric – 70%	OS	OS	OS	NR	G	OS
Sulfuric – 98%	NR	NR	NR	NR	NR	NR
Tannic – Sat.	E	E	E	E	E	E
Tartanic – Sat.	E	E	E	E	E	E
Trichloroacetic – 10%	NR	NR	G	E	NR	NR
Trichloroacetic – 20%	NR	NR	OS	E	NR	NR

Alkalies and Salts

Chemical	GS	PT	HT	UT	XP	HD
Aluminum Chloride – 50%	E	E	E	E	E	E
Ammonium Chloride – 50%	E	E	E	E	E	E
Ammonium Chloride – Sat.	E	E	E	E	E	E
Ammonium Hydroxide – up to 20%	E	E	E	E	E	E
Ammonium Hydroxide – 40%	G	G	G	G	G	G
Ammonium Hydroxide – Sat.	G	G	E	E	G	G
Ammonium Nitrate – Sat.	E	E	E	E	E	E
Ammonium Persulfate – Sat.	E	E	E	E	E	E
Ammonium Sulfate – Sat.	E	E	E	E	E	E
Calcium Chloride – Sat.	E	E	E	E	E	E
Calcium Hydroxide – Sat.	E	E	E	E	E	E
Calcium Hypochlorite – up to 15%	G	G	G	G	G	G
Calcium Hypochlorite – Sat.	OS	OS	E	E	OS	OS
Copper Fluoroborate – Sat.	E	E	E	E	E	E
Ferric Chloride – Sat.	G	G	E	E	G	G

Alkalies and Salts (continued)

Chemical	GS	PT	HT	UT	XP	HD
Ferrous Sulfate – Sat.	G	G	E	E	G	G
Potassium Hydroxide – up to 40%	E	E	E	E	E	E
Sodium Benzoate – Sat.	E	E	E	E	E	E
Sodium Carbonate (Soda Ash) – Sat.	E	E	E	E	E	E
Sodium Bicarbonate – Sat.	E	E	E	E	E	E
Sodium Bisulfate – Sat.	E	E	E	E	E	E
Sodium Bisulfite – Sat.	E	E	E	E	E	E
Sodium Chloride (Salt) – Sat.	E	E	E	E	E	E
Sodium Glutamate – Sat.	E	E	E	E	E	E
Sodium Hydroxide – up to 50%	E	E	E	E	E	E
Sodium Hypochlorite – up to 10%	G	G	G	G	G	G
Sodium Propionate – Sat.	E	E	E	E	E	E
Sodium Sulfate – Sat.	E	E	E	E	E	E
Sodium Sulfide – Sat.	E	E	E	E	E	E
Trisodium Phosphate – Sat.	E	E	E	E	E	E
Zinc Nitrate – Sat.	G	G	E	E	G	G

Solvents and Other Chemicals

Chemical	GS	PT	HT	UT	XP	HD
Acetone	OS	OS	OS	OS	NR	OS
Acrylonitrile	OS	OS	OS	OS	NR	OS
Aniline	NR	NR	NR	NR	NR	NR
Alcohol (Methyl)	OS	OS	G	G	OS	OS
Alcohol (Ethyl, Propyl, Isopropyl, Butyl)	G	G	G	G	G	G
Amyl Acetate	E	E	E	E	NR	E
Beer	E	E	E	E	E	E
Benzene	OS	OS	E	E	NR	OS
Butyl Acetate	G	G	G	G	NR	G
Butyl Lactate	G	G	G	G	G	G
Bromine	NR	NR	OS	OS	NR	NR
Carbon Disulfide	NR	NR	NR	NR	NR	NR
Carbon Tetrachloride	E	E	E	E	E	E
Chlorobenzene	E	E	E	E	NR	E
Corn Oil	E	E	E	E	E	E
Cyclohexane	E	E	E	E	E	E
Cyclohexanol	E	E	E	E	E	E
Cyclohexanone	OS	OS	G	G	OS	OS
Chloroform	NR	NR	NR	OS	NR	NR
Diacetone Alcohol	E	E	E	E	E	E
Diethyl Phthalate	E	E	E	E	E	E
Dimethyl Phthalate	E	E	E	E	E	E
Ethyl Acetate	OS	OS	G	G	NR	OS
Ethylene Glycol	E	E	E	E	E	E
Ether	OS	OS	G	E	OS	OS
Ethylene Dichloride	NR	NR	OS	OS	NR	NR
Formaldehyde	E	E	E	E	E	E
Gasoline	E	E	E	E	E	E
Glycerine	E	E	E	E	E	E
Gyoxal	E	E	E	E	E	E

Solvents and Other Chemicals (continued)

Chemical	GS	PT	HT	UT	XP	HD
Hydrogen Peroxide – 10%	E	E	E	E	E	E
JP5 Jet Fuel	E	E	E	E	E	E
Juices – Fruit	E	E	E	E	E	E
Juices – Vegetable	E	E	E	E	E	E
Kerosene	OS	OS	E	E	G	OS
Lanoline	E	E	E	E	E	E
Lard	G	G	E	E	G	G
Linseed Oil	E	E	E	E	E	E
Mayonnaise	G	G	E	E	G	G
Methyl Ethyl Ketone	NR	NR	OS	OS	NR	NR
Methyl Isobutyl Ketone	NR	NR	G	G	NR	NR
Methyl Salicylate – 50% in Toluene	NR	NR	G	G	NR	NR
Methylene Chloride	NR	NR	NR	OS	NR	NR
Milk	E	E	E	E	E	E
Mineral Spirits	E	E	E	E	E	E
Mustard	E	E	E	E	E	E
Naphtha	G	G	E	E	G	G
Naphthalene	G	G	E	E	G	G
Oils – Cutting	E	E	E	E	E	E
Oils – Mineral	E	E	E	E	E	E
Oils – Vegetable	G	G	E	E	E	G
Peanut Butter	E	E	E	E	E	E
Perchloroethylene	OS	OS	E	E	OS	OS
Phenol – 5%	NR	NR	OS	E	NR	NR
Pyridine	NR	NR	OS	OS	NR	NR
Skydrol	E	E	E	E	G	E
Sucrose (Sugar) – Sat.	E	E	E	E	E	E
Toluene	OS	OS	E	E	NR	OS
Triacetin	E	E	E	E	E	E
Trichloroethane	G	G	G	G	OS	G
Trichloroethylene	OS	OS	OS	OS	NR	OS
Triethanolamine	OS	OS	OS	G	OS	OS
Triethylene Glycol	E	E	E	E	E	E
Urea	E	E	E	E	E	E
Vinegar (Household)	E	E	E	E	E	E
Water	E	E	E	E	E	E
Wine	E	E	E	E	E	E
Xylene	G	G	E	E	OS	G

IMPORTANT:

Stonhard believes the information contained here to be true and accurate as of the date of publication. Stonhard makes no warranty, expressed or implied, based on this literature and assumes no responsibility for consequential or incidental damages in the use of the systems described, including any warranty of merchantability or fitness. Information contained here is for evaluation only. We further reserve the right to modify and change products or literature at any time and without prior notice.

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