

Laboratory tests have been carried out using Ducrete grades and with specific chemical examples for each generic family group to establish resistance within their group. These test examples are marked with an asterisk (*). These tests have been of the immersion type, carried out at ambient temperature, 50% relative humidity and over a period of 28-days, with changes in weight and compressive strength recorded.

The classification RESISTANT (R) that has been given were samples that retained more than 70% of their compressive strength and have not lost or gained more than 3% of their weight when totally immersed in the environments. Experience has shown that this interpretation correlates well with practical applications, just as testing within a generic group will accurately predict "performance" for the other chemicals that have not been tested in that group.

The classification CONDITIONAL (C) has been defined to enable customers with very difficult environmental conditions, but also who, have well controlled standards of housekeeping to take advantage of the cost savings offered by Ducrete in the confidence that it can still give them a useful life. Generally speaking, if normal SAFETY REGULATIONS for handling strong inorganic acids are observed and a wash-down is completed within one hour of spillage, Ducrete will provide an excellent compromise between cost and performance.

On this basis, the following table has been compiled as a guide to the suitability of Ducrete; always provided, it is correctly applied, and properly maintained during service. End Users should, nevertheless, satisfy themselves that Ducrete is suitable for their particular environmental conditions, and take into account both the mechanical duty and any elevated temperatures, which may accompany spillage. We would advise that these influencing factors should be discussed with your DUCON Performance Flooring sales representative before finalizing a specification. It should be noted that some environments (especially aggressive oxidizing chemicals) affect the color of Ducrete on the surface. DUCON Performance Flooring always recommends a test sample of the selected product under actual job conditions to insure proper performance.

TESTS CARRIED OUT AT AMBIENT TEMPERATURE

	CONC%	HF/WR	MF		CONC%	HF/WR	MF
ACIDS - INORGANIC				ALKALIS			
Aqua Regia	CONC'D	C	C	Ammonia, Aqueous	30%	R	R
*Boric	100%	R	R	Ammonia, Anhydrous	GAS	R	R
Chlorine Water	SAT'D	R	R	* Ammonium Hydroxide	30%	R	R
Chromic	20%	C	C	Caustic (see Sodium Hydroxide)	--		
Fluosilicic	10%	C	C	Household Ammonia	5%	R	R
Hydrobromic	50%	C	C	Milk of Lime	SAT'D	R	R
Hydrochloric	35%	R	R	Potassium Hydroxide	50%	R	R
Hydrofluoboric	4%	R	R	* Sodium Hydroxide	25-50%	R	R
Hydrofluoboric	6%	C	C				
Hydrofluoric	4%	R	R	AMINES			
Hydrofluoric	6%	C	C	* Aniline	100%	R	C
Hydrosilicofluoric	4%	R	R	Chloronaphthalene	100%	R	R
Hydrosilicofluoric	5%	C	C	Diethylenetriamine	100%	C	C
Hypochlorous	SAT'D	R	R	Ethylamine, 40% Aq. Soln.	40%	R	C
Muriatic	35%	R	R	Methyl Amine	400%	C	C
* Nitric	30%	R	R	* Monomethyl Amine	100%	C	C
* Nitric	45%	C	C	Triethanolamine	100%	C	C
Oleum	100%	C	C				
Perchloric	SAT'D	C	C	SALTS			
Phosphoric	80%	R	R	* Aluminum Chloride	Below 50%	R	R
* Sulfuric	30%	R	R	* Aluminum Sulfate	SAT'D	R	R
* Sulfuric	45%	C	C	Ammonium Chloride	50%	R	R
				Ammonium Carbonate	50%	R	R
ACIDS - ORGANIC				Ammonium Sulfate	50%	R	R
Acetic	60%	C	C	Ammonium Nitrate	50%	R	R
* Acetic	10%	R	R	* Ammonium Persulfate	50%	R	R
* Acetic Glacial	100%	C	C	* Ammonium Phosphate	SAT'D	R	R
* Acetic Anhydride	100%	C	C	* Ammonium Sulfide soln.	SAT'D	R	R
* Adipic	ALL	R	R	Barium Chloride	SAT'D	R	R
Amidosulfonic	100%	R	R	Bleach	--		

Chemicals Resistant Chart fo Ducrete (Continued)

	CONC%	HF/WR	MF		CONC%	HF/WR	MF
Benzoic	100%	R	R	(see Sodium Hypochlorite)			
Chloroacetic	50%	C	C	Bleaching Liquors	SAT'D	R	R
Chloroacetic	10%	R	R	Brine (see Sodium Chloride)	--		R
* Citric	40%	R	R	Calcium Bisulfate	SAT'D	R	R
* Fatty Acids	100%	R	R	Calcium Chlorate	SAT'D	R	R
* Formic	50%	C	C	Calcium Chloride	50%	R	R
Fumaric	ALL	R	R	Calcium Disulfide	100%	C	C
Gallic	100%	R	R	Calcium Hypochlorite	SAT'D	R	R
Glycolic	100%	R	R	Calcium Nitrate	SAT'D	R	R
Heptanic	ALL	R	R	Calcium Sulfate	SAT'D	R	R
* Lactic Acid	85%	R	R	Chlorinated Lime	SAT'D	R	R
* Maleic	40%	R	C	Coolant Brines	SAT'D	R	R
* Maleic Anhydride	100%	R	R	Copper Acetate	SAT'D	R	R
* Malic	50%	C	R	Copper Chloride	SAT'D	R	R
* Oleic	ALL	R	R	Copper Nitrate	SAT'D	R	R
Pentargonic	10%	R	R	* Copper Sulfate	SAT'D	R	R
Phenyl Sulphuric	ALL	R	R	Ferric Chloride	50%	R	R
Picric	50%	C	C	Ferric Chloride, Anhydrous	SAT'D	R	R
Picric	5%	R	R	Ferric Nitrate	SAT'D	R	R
Prussic	SAT'D	C	C	Ferric Sulfate	SAT'D	R	R
Salicylic	SAT'D	R	R	* Hydrogen Peroxide	50%	R	R
Stearic	ALL	R	R	Hydrogen Sulfide	SAT'D	R	R
Tartaric	SAT'D	R	R	Iron Sulfate	SAT'D	R	R
Toluenesulfonic	100%	R	R	* Magnesium Bisulfite	SAT'D	R	R
Thioglycolic	100%	R	R	* Magnesium Chloride	SAT'D	R	R
Vinegar	5-10% Acetic Acid	R	R	* Magnesium Sulfate	SAT'D	R	R
				Nickel Chloride	SAT'D	R	R
SALTS				Nitrobenzene	100%	C	C
Nickel Nitrate	SAT'D	R	R	Perchloroethylene	100%	R	R
Nickel Sulfate	SAT'D	R	R	*Phenol	5%	C	C
Phosphorous Chlorides	SAT'D	R	R	Pyridine	100%	C	C
Potassium Bromide	SAT'D	R	R	*Styrene	100%	R	R
Potassium Carbonate	SAT'D	R	R	Tetrachloroethene	100%	C	C
Potassium Chloride	SAT'D	R	R	Tetrachloromethane	100%	R	R
Potassium Cyanide	SAT'D	R	R	Tetrahydrofuran	100%	R	R
Potassium Ferricyanide	SAT'D	R	R	*Toluene	100%	R	C
Potassium Nitrate	SAT'D	R	R	*Trichlorobenzene	100%	R	R
Potassium Permanganate	Below 5%	R	R	*Xylene	--	R	R
Potassium Peroxide	5%	R	R				
Potassium Persulfate	SAT'D	R	R	MISCELLANEOUS			
Potassium Sulfate	SAT'D	R	R	Acetaldehyde	100%	R	R
Potassium Sulfide	SAT'D	R	R	Acetylene	100%	R (GAS)	R
Salt - saturated solution	SAT'D	R	R	Allyl Chloride	100%	R	R
Sodium Acetate	SAT'D	R	R	Amyl Acetate	100%	R	R
Sodium Bicarbonate	SAT'D	R	R	Antifreeze (Glycol)	100%	R	R
Sodium Bichromate	SAT'D	R	R	*Beer	100%	R	R
Sodium Carbonate	SAT'D	R	R	Benzole-Alcohol Mixture	--	R	R
Sodium Chlorate	SAT'D	R	R	Benzoyl Chloride	100%	R	R
Sodium Chloride	SAT'D	R	R	Benzyl Acetate	100%	R	R
*Sodium Hypochlorite	50 PPM Cl2	R	R	Benzyl Chloride	100%	R	R
Sodium Hypochlorite	5000 PPM Cl2	R	R	*Blood	100%	R	R
*Sodium Hypochlorite	Below 6% Cl2	R	R	Bromine	100%	R (GAS)	R
*Sodium Hypochlorite	27%	R	R	Butyl Acetate	100%	R	R
Sodium Nitrate	SAT'D	R	R	Carbon Dioxide	100%	R (GAS)	R
Sodium Peroxide	5%	R	R	*Caprolactam	20%	C	R
Sodium Phosphate	SAT'D	R	R	*Castor Oil	100%	R	R
Sodium Sulfate	SAT'D	R	R	Chlorine (Dry)	GAS	R (GAS)	R

Chemicals Resistant Chart fo Ducrete (Continued)

	CONC%	HF/WR	MF		CONC%	HF/WR	MF
Sodium Sulfide	SAT'D	R	R	Chlorine (Wet)	5000 PPM	R	R
Stannic Chloride	SAT'D	R	R	Cottage Cheese	100%	R	R
Sulfur Chloride	SAT'D	R	R	*Cottonseed Oil	100%	R	R
Sulfur Monochloride	SAT'D	R	R	Crude Oil	--	R	R
Trisodium Phosphate	ALL	R	R	Diphenyl or Diphenyl Oxide	100%	R	R
*Urea	20%	R	R	Ethyl Chloride	100%	C	C
Zinc Chloride	50%	R	R	Ethylene Dichloride	100%	C	C
				*Formaldehyde (Formalin)	37%	R	R
SOLVENTS				Glycerine	100%	R	R
*Acetone	100%	C	C	*Glycerol	100%	R	R
Benzene	100%	R	R	Hexachlorocyclopentadiene	100%	C	C
Benzyl Alcohol	100%	R	R	Hydroquinone	100%	R	R
Butyl Alcohol	100%	R	R	Jet Fuel	100%	R	R
*Carbon Disulfide	100%	R	R	Kerosene	100%	R	R
*Carbon Tetrachloride	100%	R	R	Lard	100%	R	R
*Chloroform	100%	C	C	Mercury	100%	R	R
Chloronitrobenzene	100%	C	C	*Methylated Spirits	100%	R	R
Cresois	100%	C	C	Methyl Naphthalene	100%	R	C
*Cyclohexane	100%	R	R	*Milk	100%	R	R
Cyclohexanone	100%	R	R	*Mineral Oil	100%	R	R
Dichlorethylene	100%	C	C	Miscible Oil	100%	R	R
Diethylene Glycol	100%	R	R	Motor Oil	100%	R	R
Dimethylaminoethanol	100%	R	R	Nitric Oxides	100%	R (GAS)	R
Dimethyl Formamide	100%	C	C	Nitropropane	100%	R (GAS)	R
Dinitrobenzene	100%	R	R	Oils (Saponifiable)	100%	R	R
Ether	100%	R	R	Oxygen	100%	R (GAS)	R
Ethyl Acetate	100%	R	R	Paradimethyl-amino-benzo-phenone	100%	R	R
Ethyl Alcohol	100%	R	R	Paraffin	100%	R	R
*Ethylene Dichloride	100%	C	C	Petroleum	100%	R	R
Ethylene Glycol	100%	R	R	*Propylene Glycol	100%	R	R
Furfural	100%	R	R	Phosgene	100%	R (GAS)	R
Furfural Alcohol	100%	R	R	Phthalicanhydride	100%	R	R
Glycol	100%	R	R	Quinine Sulfate	100%	R	R
Glycol Acetate	100%	R	R	Sacharin Soins	ALL	R	R
*Methanol	100%	R	R	Steam	100%	R	R
Methyl Acetate	100%	R	R	*Sugar Solutions	SAT'D	R	R
Methyl Alcohol	100%	R	R	Sulfur Dioxide	100%	R (GAS)	R
Methyl Cellosolve	100%	R	R	Sulfuryl Chloride	100%	C	C
*Methyl Chloride	100%	C	C	Tannin	100%	R	R
Methylcyclohexanol	100%	R	R	Tar, Tar Oils	100%	R	R
*Methyl Ethyl Ketone (MEK)	100%	C	C	Town Gas	100%	R (GAS)	R
Methylene Chloride	100%	R	C	Turpentine	100%	R	R
*Methyl Methacrylate	100%	R	C	Urine	100%	R	R
*Mono Chlorobenzene	100%	R	C	Vegetable Oil	100%	R	R
Naphthalene	100%	R	R	Water	100%	R	R

*R = Resistant *C = Conditional



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