

Dencryl™

CHEMICAL RESISTANCE DATA

Chemical resistant tests have been completed on the full range of DENCOT™ Flooring products. Usually this has been effected upon products, which are pigmented, light grey in colour. All test pieces were cast as 20 x 20 x 4 mm coupons (grouted and sealed where appropriate) being allowed to fully cure for 10 days at 20°C prior to being tested in accordance with the schedules described below.

The results detailed in the tables below should be considered as the most extreme circumstances as the test pieces were completely immersed in the test solutions. In practice, aggressive chemicals only come into contact with the uppermost working surface of any floor system, which significantly reduces the aggressive potential of a given chemical. Additionally, these effects should be

minimised in practice by good house keeping and cleaning regimes. In the absence of specific chemical contact data or combinations of chemicals listed below please contact our technical department or laboratories who will be pleased to advise you based upon experience from previous case histories. Alternatively, our technical centre can carry out further tests.

Please Note:

- Discoloration not classified as chemical attack if hardness is unchanged.
- Higher temperatures will reduce the chemical resistance shown in the performance table.
- Some chemicals may concentrate due to evaporation and become more aggressive.
- Mixtures of chemicals can be more aggressive than might be expected from the individual components alone.
- Solvent resistant performances, in practice, are expected to exceed the values noted in the performance table due to good housekeeping combined with evaporation.
- The chemical resistance of Epoxy screed systems will be influenced by the integrity of the surface sealer – this being dependent upon service conditions and housekeeping.
- The assessment is based on a resin rich screed where permeation by liquid chemicals is minimal. The use of a highly filled screed will significantly reduce the chemical resistance shown in the performance table.

Key: Chemical Resistance ratings are as follows:

Rating	Explanation
+ Resistant	No changes after 4 weeks.
0 Slight surface attack	Short-term exposure is possible (1-4 hours). By longer exposure the layer will be damaged.
- Not resistant	Even short-term exposure is damaging.

The resistance should always be read from the column layer if available. This is due to the fact that chemicals and especially organic compounds by long term exposure can penetrate the topcoat by diffusion. This process depends on the thickness of the topcoat layer, however long term resistance is not reachable if the layer is not resistant.

			Test Result	
Chemical	%	Layer	Coating	
Water				
Water		+	+	
Water with 1% detergent		+	+	
Sea water		+	+	
Sodium sulphate	20%	+	+	
Potassium carbonate	10%	+	+	
Hydrogen peroxid	3%	+	+	
	15%	+	+	
	30%	+	+	
Bleach lye		+	+	
Sodium sulphide	20%	+	+	
Sodium cyanide	10%	+	+	
Alkalies				
Sodium Hydroxid (Caustisk soda)	10%	+	+	
	30%	+	+	
Pottasium Hydroxide	10%	+	+	
	30%	+	+	
	50%	+	+	
Ammonia	10%	+	+	
	25%	0	+	
Acids				
Hydrochloric acid	10%	+	+	
	38%	+	+	
Sulphuric acid	10%	+	+	
	30%	+	+	
	50%	+	+	
	80%	-	+	
Potassium hydrogene sulphate		+	+	
Chromic acid	10%	+	+	
	40%	0	0	
Nitric acid	10%	+	+	
	30%	+	+	
	50%	0	0	
Phosphoric acid	10%	+	+	
	20%	+	+	
	30%	+	+	
	Conc	0	+	
Formic acid	10%	0	+	
Lactic acid	10%	+	+	

Test Result

Chemical	%	Layer	Coating
Acids			
Oleic acid	Conc	+	+
Acetic acid	10%	+	+
	25%	+	+
	30%	0	+
	80%	-	+
Tartaric acid	10%	+	+
	40%	+	+
Citric acid		+	+
Trichloroacetic acid	25%	-	-
Metal pickling agent		+	+
Organic compounds			
Methanol	CH ₃ OH	-	+
Ethanol	C ₂ H ₅ OH	-	+
Ethanol, 60% in water		+	+
Isopropanol		-	+
Glycerol		+	+
Ethylene glycol		+	+
Cellosolve solvent		0	+
Phenol		0	+
Liquid paraffin		+	+
Cyclohexane		+	+
Petroleum ether		+	+
Diesel oil		+	+
Fuel oil, light		+	+
Fuel oil, heavy		+	+
Normal petroleum spirit		0	+
High octane petroleum spirit		0	+
Mineral oil		0	+
Kerosene		+	+
Motor oil		+	+
Cutting Oil		+	+
Edible oil		+	+
Diethyl phthalate		0	+
Dibutyl phthalate		0	+
Tricresyl phos		0	+
Tributylphosphate		0	+
Formaldehyde, 40% in water		+	+
Monochlorobenzene		-	-
Nitrobenzene		-	-

Chemical	%	Test Result	
		Layer	Coating
Organic compounds			
Acetic acid anhydrate		-	-
Terpentine (Oil)		+	+
Tetrealine		-	0
Benzene		-	0
Toluene		-	0
Xylene		-	0
Cumol (Isopropylbenzene)		-	0
Perchlorethylene		0	0
Acetic acid ester		-	-
Acetone (dimethyl ketone)		-	-
Carbon tetrachloride	CCL4	-	0
Styrene		0	+
Skydrol	B500	0	+
Miscellaneous			
Orange- apple- citrus juice		+	+
Animal fats		+	+
Vegetabel fat		+	+
Red Wine		+	+
Malt drinks		+	+
Milk		+	+
Blood		+	+



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