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RENOLIT ALKORPLAN

Chemical stability



EXCELLENCE
IN ROOFING

Testing method

The best assessment about the long term fitness for purpose of membranes under chemical environments is based on practical experience. The chemical resistance of **RENOLIT ALKORPLAN** sheets is tested in accordance with DIN 53393. This testing method is not the only reference for the chemical resistance of the **RENOLIT ALKORPLAN** roofing membranes, since it is dependent on a number of factors, e.g. form (solid, liquid, gaseous), temperature, concentration, thickness, reaction time, ... The table describes the chemical resistance concerning common substances.

The evaluation only reflects the functionality and resistance of the sheets, without considering any surface or colour changes. The statements are valid for the indicated temperature with a typical test period of 28 days based on a single-sided contact.

A mixture of chemical agents may show a higher degree of aggression than each of the components separately.

RENOLIT ALKORPLAN roofing membranes Chemical Stability	Concentration data
Stable	Ac = any concentration
Conditionally stable no chemical destruction. Use value is adversely influenced.	Tr = traces
Unstable - no use value	Sc = small concentration
	Ntc = normal trade concentration
	S = cold saturated at 20°C
	C = concentrated

I. INORGANIC SUBSTANCES			
	Conc. %	temperature RENOLIT ALKORPLAN	
		23°C	50°C
a. Acids and bases			
Gaseous ammonia	100		
Liquid ammonia	100		
Chromic acid	10		
Potassium hydroxide solution	10		
Potassium hydroxide solution	≤ 35		
Aqueous lactic acid	50		
Sodium hydroxide	10		
Sodium hydroxide	≤ 50		
Aqueous phosphoric acid	≤ 50		
Nitric acid	10		
Nitric acid	50		
Hydrochloric acid	37		
Hydrochloric acid	10		
Sulphuric acid	50		
Sulphuric acid	96		
Sulphuric anhydride			
b. Aqueous solutions			
Ammonium hydroxide	10		
Ammonium hydroxide	32		
Ammonium nitrate	S		
Ammonium sulphate	S		
Ammonium chloride	S		
Calcium chloride	≤ S		
Calcium nitrate	≤ S		
Calcium phosphate	Ac		
Calcium sulphate	Ac		
Fertiliser salts	S		
Aqueous potassium carbonate	S		
Potassium bichromate	≤ 40		

I. INORGANIC SUBSTANCES			
b. Aqueous solutions	Conc. %	temperature RENOLIT ALKORPLAN	
		23°C	50°C
Potassium chloride	S	+	+
Potassium chromate	10	+	±
Potassium nitrate	S	+	+
Potassium perchlorate	S	±	±
Potassium permanganate	S	±	-
Potassium sulphate	Ac	+	+
Copper sulphate	S	+	±
Magnesium chloride	S	+	+
Sodium carbonate	10	+	+
II. ORGANIC SUBSTANCES			
Exhaust gases, containing carbonic acid	Ac	+	+
Exhaust gases, containing nitrous acid	Tr	+	±
Exhaust gases, containing hydrochloric acid	Ac	+	+
Exhaust gases with sulphuric acid	Ac	+	+
Exhaust gases with SO ₂	L	+	+
Aceton	100	-	-
Anone	100	-	-
Asphalt		-	-
Ethylene chloride	100	-	-
Gasoline	100	-	-
Benzol		-	-
Butanol	100	-	-
Aqueous butyric acid	20	-	-
Butyric acid	C	-	-
Butyl acetate	100	-	-
Cyclohexane	100	-	-
Diesel oil	Ntc	-	-
Dimethylformamide	100	-	-
Aqueous acetic acid	10	+	±
Aqueous acetic acid	100	-	-
Acetic acid anhydride	C	-	-
Jet fuel (kerosene)	Ntc	-	-
Aqueous formaldehyde	≤ 40	±	-
Glycol	100	±	±
Glycerine (aqueous/pure)	Ac	+	±
Urea	33	+	±
Isooctane	Ntc	-	-
Methyl alcohol	≤ 100	-	-
Methylene chloride	100	-	-
Perchlorethylene	Ntc	-	-
Turpentine	Ntc	-	-
Tetrahydrofurane	Ntc	-	-
Toluol	Ntc	-	-
Trichlorethylene	Ntc	-	-
Xylol	Ntc	-	-
Petroleum	Ntc	-	-
Chloroform	Ntc	-	-

	Conc. %	temperature RENOLIT ALKORPLAN	
		23°C	50°C
Ethyl alcohol	10	+	±
Ethyl alcohol	96	±	-
Bleaching lye	12,5	-	-
Sodium hypochloride	5	+	±
Sodium hypochloride	12,5	±	-
Vinegar		±	-
Heating oils		-	-
Cooking salt	S	+	+
Seawater		+	+
Urine		+	±
Water, effluents of every type but without organic solvents		+	+
Detergents	Ntc	+	±
Butter		±	-

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