

## **RENOLIT** ALKORPLAN

Chemical stability



## 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	
<ul> <li>Stable</li> <li>Conditionally stable no chemical destruction.</li> <li>Use value is adversely influenced.</li> <li>Unstable - no use value</li> </ul>	Ac = any concentration Tr = traces	
	Sc = small concentration Ntc = normal trade concentration	
	S = cold saturated at 20°C C = concentrated	

		temperature RENOLIT ALKORPLAN	
a. Acids and bases	Conc. %	23°C	50°C
Gaseous ammonia	100	<b>•</b>	•
Liquid ammonia	100	•	•
Chromic acid	10	<b>•</b>	•
Potassium hydroxide solution	10	<b>•</b>	<u> </u>
Potassium hydroxide solution	≤ 35	<b>=</b>	
Aqueous lactic acid	50	<b>+</b>	<b>(1)</b>
Sodium hydroxide	10	<b>=</b>	
Sodium hydroxide	≤ 50		•
Aqueous phosphoric acid	≤ 50	<b>•</b>	•
Nitric acid	10	<b>•</b>	<u> </u>
Nitric acid	50	•	
Hydrochloric acid	37	<u> </u>	•
Hydrochloric acid	10	<b>•</b>	<u> </u>
Sulphuric acid	50	<b>•</b>	•
Sulphuric acid	96	•	•
Sulphuric anhydride		•	<u> </u>
b. Aqueous solutions			
Ammonium hydroxide	10	<b>+</b>	<b>6</b>
Ammonium hydroxide	32	<b>±</b>	
Ammonium nitrate	S	<b>•</b>	•
Ammonium sulphate	S	<b>•</b>	•
Ammonium chloride	S	<b>•</b>	•
Calcium chloride	≤ S	<b>•</b>	<b>•</b>
Calcium nitrate	≤ S	<b>•</b>	<b>•</b>
Calcium phosphate	Ac	<b>•</b>	0
Calcium sulphate	Ac	<b>•</b>	<b>•</b>
Fertiliser salts	S	<b>•</b>	Ð
Aqueous potassium carbonate	S	<b>•</b>	<b>•</b>
Potassium bichromate	≤ 40	<b>•</b>	<u>(1)</u>

		temperature REN	IOLIT ALKORPLA
b. Aqueous solutions	Conc. %	23°C 50°C	
Potassium chloride	S	<b>•</b>	Ð
Potassium chromate	10	•	<u> </u>
Potassium nitrate	S	<b>•</b>	0
Potassium perchlorate	S	<u> </u>	<b>£</b>
Potassium permanganate	S	<u> </u>	•
Potassium sulphate	Ac	<b>•</b>	<b>•</b>
Copper sulphate	S	<b>•</b>	<u> </u>
Magnesium chloride	S	<b>+</b>	<b>•</b>
Sodium carbonate	10	<b>•</b>	•
II. ORGANIC SUBSTANCES			
Exhaust gases, containing carbonic acid	Ac	<b>+</b>	<b>•</b>
Exhaust gases, containing nitrous acid	Tr	<b>•</b>	<b>(1)</b>
Exhaust gases, containing hydrochloric acid	Ac	<b>•</b>	<b>•</b>
Exhaust gases with sulphuric acid	Ac	<b>•</b>	<b>•</b>
Exhaust gases with SO <sub>2</sub>	L	<b>•</b>	<b>•</b>
Aceton	100	•	
Anone	100		
Asphalt			
Ethylene chloride	100		
Gasoline	100		
Benzol			
Butanol	100	•	
Aqueous butyric acid	20		
Butyric acid	С		
Butyl acetate	100		
Cyclohexane	100		
Diesel oil	Ntc		
Dimethylformamide	100		
Aqueous acetic acid	10	•	<u>+</u>
Aqueous acetic acid	100	•	
Acetic acid anhydride	C		
Jet fuel (kerosene)	Ntc		
Aqueous formaldehyde	≤ 40	<u>±</u>	
Glycol	100	<u> </u>	<u> </u>
Glycerine (aqueous/pure)	Ac	•	<b>1</b>
Urea	33	0	<b>±</b>
Isooctane	Ntc		
Methyl alcohol	≤ 100		
Methylene chloride	100		
Perchlorethylene	Ntc		
Turpentine	Ntc		
Tetrahydrofurane Tetrahydrofurane	Ntc		
Foluol	Ntc		
	Ntc		
[richlorethylene	Ntc		
Kylol Potroloum		_	•
Petroleum Chloroform	Ntc Ntc	•	

		temperature RENOLIT ALKORPLAN	
	Conc. %	23°C	50°C
Ethyl alcohol	10	<b>•</b>	<b>=</b>
Ethyl alcohol	96	<u> </u>	•
Bleaching lye	12,5		
Sodium hypochloride	5	•	<u> </u>
Sodium hypochloride	12,5	<u> </u>	•
Vinegar		<u> </u>	
Heating oils		•	
Cooking salt	S	•	<b>•</b>
Seawater		•	<b>•</b>
Urine		•	<u> </u>
Water, effluents of every type but without organic solvents		•	<b>•</b>
Detergents	Ntc	•	<u> </u>
Butter		<u>(1)</u>	

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