



Chemical Stability

Testing Method

The chemical resistance of Alkortop sheets is tested in accordance with DIN 53393.




This testing method is not the only reference for the chemical resistance of the Alkortop roofing membranes, since it is dependent on a number of

factors, e.g. form (solid, liquid, gaseous), temperature, concentration, thickness, reaction time etc.

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

The evaluation only reflects the functionality and resistance of the sheets, without considering any surface or colour changes.


















































Symbols:

	: stable
	: conditionally stable no chemical destruction. Used value is adversely influenced
	: unstable no use value

Concentration data

Ac	= any concentration
Tr	= traces
Sc	= small concentration
Ntc	= normal trade concentration
S	= cold saturated at 20°C
C	= concentrated

Test substance**I. Inorganic substances**

a. Acids and bases	Conc. %	Temperature	
		25°	50°
Liquid ammonia	100		
Chromic acid	50		
Potassium hydroxide solution	50		
Aqueous lactic acid	50		
Sodium hydroxide	< 45		
Sodium hydroxide	≤ 50		
Aqueous phosphoric acid	≤ 50		
Nitric acid	38		
Nitric acid	50		
H ₂ O ₂	10		
H ₂ O ₂	30		
Hydrochloric acid	37		
Sulphuric acid	50		
Sulphuric acid	96		
b. Aqueous solutions			
Ammonium hydroxide	S		
Ammonium nitrate	50		
Ammonium sulphate	43		
Ammonium chloride	37		
Calcium chloride	50		
Calcium sulphate	S		
Aqueous potassium carbonate	S		
Potassium bichromate	20		
Potassium chloride	27		
Potassium chromate	50		
Potassium nitrate	S		
Potassium perchlorate	S		
Potassium permanganate	20		
Potassium phosphate	17		
Potassium hydroxide	50		
Potassium sulphate	11		
Magnesium chloride	S		
Salts from Al, NH ₄ , CA, K, Mg, NA			
Soda Carbonate	50		

Test Substance	Conc. %	Temperature	
		25°	50°
II Organic Substances			
Acetic acide anhydride	Ntc	+	
Acetone	100	+	
Asphalt/Bitumen		+	
Benzine normal		-	
Benzine super		-	
Butyl acetate	100	±	-
Cyclohexane	100	-	
Diesel Oil	Ntc	-	
Jet Fuel (Kerosene)	Ntc	-	-
Aqueous formaldehyde	≤40	+	
Glycol	100	+	
Glycerine (aqueous /pure)	Ac	+	
Urea	33	+	
Iso-octaan		-	
Mineral Oil (without aromatics)		±	
Methyl alcohol	≤100	+	
Methylene chloride	100	-	-
Motor Oil		±	
Oils		±	
Paraffines		±	
Perchlorethylene	Ntc	-	-
Plasticizers		-	
Turpentine	Ntc	-	-
Tetrahydrofurane	Ntc	-	-
Toluol	Ntc	-	-
Trichlorethylene	Ntc	-	-
White spirit		-	-
Xylol	Ntc	-	-
Chloroform	Ntc	-	-

III Foods and Miscelaneous

Cacaobutter	Ntc	±	-
Butter	Ntc	±	-
Ethyl alcohol denatured	96	+	
Sodium hypochloride	20	+	
Vinegar	Ntc	±	±
Heating Oils	Ntc	±	
Cooking salt	25	+	
Seawater	Ntc	+	
Water, effluents of every type but without organic solvents		+	
Detergents	Ntc	+	

ALKORTOP : These results were obtained from tests in accordance with the ISO R62 specification (28 days immersion / 23 °C) on a product that is not an FPP but which has a rather similar chemical composition (i.e. with ethylene propylene rubber). We consider the product suitable (+) when it swells less than 10% and when stress and elongation at break remain more than 80%.

Group n°		Suitability
1. Gasoline and aromatics	Mixture of 40% (v/v) iso-octane 15% (v/v) benzene 20% (v/v) toluene 15% (v/v) xylene	—
2. Mineral oils	Mixture of 35% (v/v) dieselfueloil 35% (v/v) paraffin oil (C ₁₀ -C ₂₀) 30% (v/v) motoroil (HD30)	—
3. Alcohols	Mixture of 30% (v/v) methanol 30% (v/v) isopropanol 40% (v/v) ethanediol	+
4. Aliphatic esters and ketons	Mixture of 50% (v/v) ethylacetate 50% (v/v) methylisobutylketone	+
5. Aliphatic aldehydes	Solution of 40% (v/v) formaldehyde in water	+
6. Chloride Aliphatic	Solution of 30% (v/v) trichlorethylene 30% (v/v) tetrachlorethylene 40% (v/v) dichloromethane	—
7. Inorganic mineral and oxidizing acids	Mixture of 10% (v/v) sulfuric acid 10% (v/v) nitric acid 80% (v/v) water	+
8. Alkali	Solution of 60 (m/m) in water	+
9. Percolation water	Composition of synthetic percolation water : Acetic acid 7,5 g/l Propionic acid 2,5 g/l Isobutyric acid 0,4 g/l Butyric acid 7,0 g/l Isovaleric acid 0,4 g/l Octanoic acid 4,5 g/l Enanthic acid 4,0 g/l Glucose 0,2 g/l Na Cl 0,35 g/l Na ₂ SO ₄ 0,30 g/l Ca Cl ₂ 0,10 g/l MgSO ₄ ·7H ₂ O 0,20 g/l (NH ₃) ₃ ·PO ₄ 0,50 g/l NH ₃ 16 ml Water PH is adjusted to 6 with NaOH	+

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RENOLIT WATERPROOFING

Axis 5,
Rhodes Way
Watford
WD24 4TN
Great Britain
Tel: 01923/24 95 11
Fax: 01923/22 74 27