



CHEMICAL RESISTANCE /

Rilsan® coating resistance as a function of temperature

In general, Rilsan® PA11 has good resistance to inorganic salts, alkalis, most solvents, and organic acids. Greater caution must be observed in applications involving inorganic acids, phenols and certain chlorinated solvents. In such cases, it is advisable to consult the Arkema's Technical Service Department, specifying the practical problem involved: e.g temperature and chemical composition of the liquid.

RESISTANCE (°C)	20	40	60	90
Inorganic bases				
ammonium hydroxide (concentrated)	G	G	G	G
ammonia (liquid or gas)	G	G		
lime-wash	G	G	G	
potassium hydroxide (50%)	G	L	P	P
sodium hydroxide (5%)	G	G	L	
sodium hydroxide (10%)	G	L	L	
sodium hydroxide (50%)	G	L	P	P
Inorganic acids				
chromic acid (10%)	P	P	P	P
hydrochloric acid (1%)	G	L	P	P
hydrochloric acid (10%)	G	L	P	P
nitric acid (all concentrations)	P	P	P	P
phosphoric acid (50%)	G	L	P	P
sulphuric acid (1%)	G	L	L	P
sulphuric acid (10%)	G	L	P	P
sulphuric trioxide	L	P	P	P
Inorganic salts				
alum	G	G	G	
aluminium sulphate	G	G	G	G
ammonium nitrate	G	G	G	
ammonium sulphate	G	G	L	
chlorides (barium/ calcium /saturated sodium)	G	G	G	G
calcium arsenate	G	G	G	
calcium sulphate	G	G	L	
copper sulphate	G	G	G	G
diammonium phosphate	G	G	L	
magnesium chloride (50%)	G	G	G	G
potassium ferrocyanide	G	G	G	
potassium nitrate	G ¹	G ¹	P	P
potassium sulphate	G	G	G	G
sodium carbonate	G	G	L	P
sodium silicate	G	G	G	
sodium sulphide	G	L	L	
trisodium phosphate	G	G	G	G
Other inorganic products				
agricultural sprays	G	G		
bleach solution	L	P	P	P
bromine / chlorine / fluorine	P	P	P	P
hydrogen	G	G	G	G
hydrogen peroxide (20 volumes)	G	L		
mercury	G	G	G	G
oxygen	G	G	L	P
ozone	L	P	P	P
potassium permanganate (5%)	P	P		
sea water	G	G	G	
soda water	G	G	G	G
sulphur	G	G		
Hydrocarbons				
acetylene	G	G	G	G
alkanes (methane, propane, butane, hexane)	G	G	G	
benzene	G	G ²	L	
cyclohexane	G	G	L	
decalin	G	G	L	
HFA	G			
naphthalene	G	G	G	L
styrene / toluene / xylene	G	G ³	L	L
Various products				
beer, cider, fruit juices, milk, mustard, vinegar, wine	G			
crude petroleum, high-octane petrol, kerosene (paraffin), normal petrol, solvent naphtha, town gas	G	G	G ³	
greases	G	G	G	G
oils	G	G	G	G
solutions or emulsions D.D.T. or lindane	G	G		
hydroxy-quionoline (agricultural sprays)	G			
soap solution	G			
stearin	G	G	G	
turpentine	G	G	G ³	

Condition after 18 months contact:

G: Good - L: Limited - P: Poor

1: Slight yellowing - 2: Yellowing - 3: Swelling action

RESISTANCE (°C)	20	40	60	90	RESISTANCE (°C)	20	40	60	90
Organic acids and anhydrides					Salts, esters, ethers				
acetic acid	L	P	P	P	acetate esters (amyl, butyl, methyl)	G	G	G	L
acetic anhydride	L	P	P	P	phosphate esters (dioctyl, tributyl, tricesyl)	G	G	G	L
citric acid	G	G	L	P	diethyl ether	G			
formic acid	P	P	P	P	dioctylphthalate	G	G	G	L
lactic acid	G	G	G	L	fatty acid esters	G	G	G	G
oleic / stearic acid	G	G	G	L	methyl sulfate	G	L		
oxalic acid	G	G	L	P					
picric acid	L	P	P	P	Alcohols				
tartaric acid (saturated solution)	G	G	G	L	benzyl alcohol	L	P	P	P
uric acid	G	G	G	L	butanol	G ³	L	P	P
					ethanol (pure)	G ³	G ³	L	
Various organic compounds					glycerin (pure)	G	G	L	P
anethole	G				glycol	G	G	G	P
carbon disulphide	G ³				methanol (pure)	G ³	L	P	
diacetone alcohol	G	G ³	L						
dimethyl formamide	G	G	L		Chlorinated solvents				
ethylene chlorhydrin	P	P			carbon tetrachloride	P	P		
ethylene oxide	G	G	L	P	methyl bromide	G	P		
furfural	G	G ³	L	P	methyl chloride	G	P		
glucose	G	G	G	G	perchloroethylene	G	G	L	
tetraethyl lead	G				trichloroethane	L	P		
tetrahydrofurane	G	G	L		trichloroethylene	G	L		
phenols	P	P	P	P					
					Adehydes and ketones				
Organic bases					aldehydes (acetaldehyde / benzaldehyde / formaldehyde)	G	L	P	
aniline (pure)	L	P	P	P	acetone (pure)	G	G	L	P
diethanolamine (20%)	G	G ³	G ³	L	cyclohexanone	G	L	P	
pyridine (pure)	L	P	P	P	methylethylketone (MEK)				
urea	G	G	L	L	methylisobutylketone (MIBK)	G	G	L	P

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