



**CHEMICAL RESISTANCE /**

## Rilsan<sup>®</sup> coating resistance as a function of temperature

In general, Rilsan<sup>®</sup> coatings have 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 nature of metal to be protected and the temperature and chemical composition of the liquid.

RESISTANCE (°C)	20	40	60	90
<b>Inorganic bases</b>				
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
<b>Inorganic acids</b>				
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
<b>Inorganic salts</b>				
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 <sup>1</sup>	G <sup>1</sup>	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
<b>Other inorganic products</b>				
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		
<b>Hydrocarbons</b>				
acetylene	G	G	G	G
alcanes (methane, propane, butane, hexane)	G	G	G	
benzene	G	G <sup>2</sup>	L	
cyclohexane	G	G	L	
decalin G	G	G	L	
HFA	G			
naphthalene	G	G	G	L
styrene / toluene / xylene	G	G <sup>3</sup>	L	L
<b>Various products</b>				
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 <sup>3</sup>	
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 <sup>3</sup>	

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
<b>Organic acids and anhydrides</b>					<b>Salts, esters, ethers</b>				
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	<b>Alcohols</b>				
picric acid	L	P	P	P	benzyl alcohol	L	P	P	P
tartaric acid (saturated solution)	G	G	G	L	butanol	G <sup>3</sup>	L	P	P
uric acid	G	G	G	L	ethanol (pure)	G <sup>3</sup>	G <sup>3</sup>	L	
<b>Various organic compounds</b>					glycerin (pure)	G	G	L	P
anethole	G				glycol	G	G	G	P
carbon disulphide	G <sup>3</sup>				methanol (pure)	G <sup>3</sup>	L	P	
diacetone alcohol	G	G <sup>3</sup>	L		<b>Chlorinated solvents</b>				
dimethyl formamide	G	G	L		carbon tetrachloride	P	P		
ethylene chlorhydrin	P	P			methyl bromide	G	P		
ethylene oxide	G	G	L	P	methyl chloride	G	P		
furfural	G	G <sup>3</sup>	L	P	perchloroethylene	G	G	L	
glucose	G	G	G	G	trichloroethane	L	P		
tetraethyl lead	G				trichloroethylene	G	L		
tetrahydrofurane	G	G	L		<b>Adehydes and ketones</b>				
phenols	P	P	P	P	aldehydes (acetaldehyde / benzaldehyde / formaldehyde)	G	L	P	
<b>Organic bases</b>					acetone (pure)	G	G	L	P
aniline (pure)	L	P	P	P	cyclohexanone	G	L	P	
diethanolamine (20%)	G	G <sup>3</sup>	G <sup>3</sup>	L	methylethylketone (MEK)				
pyridine (pure)	L	P	P	P	methylisobutylketone (MIBK)	G	G	L	P
urea	G	G	L	L					

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**Disclaimer:**

Please consult Arkema's disclaimer regarding the use of Arkema's products on <http://www.arkema.com/en/products/productsafety/disclaimer/index.html>

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