

Chemical resistance table
for stainless steel corrugated tubes, compensators and couplings

RESISTANCE LIST

The following resistance table has been put together on the basis of laboratory tests with chemically pure corrosive agents and intends merely to provide the consumer with a guide value. Practical conditions usually also involve impurities, in particular metal salts, which can cause increased corrosive attacks.

Special consideration should also be given to the risk of pitting and stress corrosion, even if the steels are normally completely resistant to the corresponding corrosive agent.

Please contact our staff if you have any further questions.

Stage	Resistance
A	good
B	normal
C	adequate
D	none

Medien	321 1.4541	316-Ti 1.4571	904 1.4539	Incoloy 825	Inconel 600	Inconel 625	Brass MS	Aluminium AL
A								
Acetic acid	A	A	—	A	A	A	D	B
Acetone	B	A	-	B	B	A	A	A
Acetyl chloride	A	A	-	-	-	-	-	—
Acetylsalicylic acid	A	A	-	-	-	-	—	—
Air	A	A	A	A	A	A	A	A
Alum 10%	A	A	-	-	-	-	-	-
Aluminium acetate	C	B	A	B	B	A	—	.
Aluminium chloride 25%	A	A	.	A	A	A	—	.
Aluminium chloride 5%	D	C	A	—	-	—	C	—
Aluminium nitrate	A	A	-	-	-	-	-	—
Aluminium sulphate 10%	B	A	-	-	-	-	c	—
Ammonia	A	A	-	B	D	-	—	-
Ammonium carbonate	A	A	.	A	-	-	—	-
Ammonium chloride	A	A	-	-	-	-	-	-
Ammonium chloride 10%	C	B	B	-	-	-	-	-
Ammonium nitrate	B	A	-	—	-	-	—	—
Ammonium sulphate	D	D	-	—	-	-	—	.
Antimony chloride	A	A	-	—	-	-	—	.
Aqua regia	A	A	-	-	-	-	-	-
B								
Beer	A	A	-	A	A	A	B	A
Benzene	A	A	-	A	A	A	A	A
Blood	A	A	-	A	B	A	-	—
Boric acid <50%	D	D	-	B	A	A	C	A
Bromine	B	A	-	B	D	A	-	—
Butyric acid	B	B	A	A	A	A	-	—
C								
Calcium chloride	A	A	-	B	A	A	—	.
Calcium hydroxide	A	A	-	A	A	A	—	—
Calcium sulphate	D	D	—	—	A	A	D	—
carbon tetrachloride	-	-	-	-	-	-	A	C
Caustic soda 50%	B	A	-	-	-	-	-	-
Chlorine	B	B	A	-	-	-	B	A
Citric acid	D	D	-	-	A	-	C	A
Crude oil	A	A	-	A	A	A	-	-
E								
Effluent (acid traces)	A	A	A	A	A	A	-	—
Ethanol	A	A	—	—	-	—	—	—
F								
Fatty acid	D	D	-	-	-	-	-	—
Formaldehyde	A	A	-	—	-	-	B	B
Formic acid 10%	C	B	A	-	-	-	—	—
Formic acid 100%	A	A	-	A	D	B	D	A
Fruit acid and juice	A	A	-	A	A	A	—	—

Medien	321 1.4541	316-Ti 1.4571	904 1.4539	Incoloy 825	Inconel 600	Inconel 625	Brass MS	Aluminium AL
G								
Glycerine	D	C	A	.	-	-	B	A
Hydrochloric acid 0.50%	B	A	~	-	-	-	D	D
Hydrogen	-	A	A	-	-	-	A	A
Hydrogen peroxide	A	-	A	A	B	A	D	A
L								
Lactic acid 1%	A	A	-	-	A	-	-	C
Linseed oil	B	B	-	-	A	A	-	-
M								
Malic acid	A	A	A	A	A	A	-	-
Methanol	A	A	-	-	-	-	-	-
Milk	A	A	-	-	-	-	C	A
N								
Nitric acid	B	B	A	-	-	-	D	C
Nitric acid 37%	C	C	-	A	D	-	-	-
P								
Petrol	A	A	-	-	B	B	A	A
Phenol	A	A	-	A	A	A	-	-
Phosphoric acid 10%	D	C	B	-	A	-	D	C
Phosphoric acid 80%	A	A	-	-	-	-	D	D
Potassium bisulphate 5%	A	A	A	-	.	-	-	.
Potassium chloride	A	A	A	-	-	-	C	C
Potassium chromium sulphate	A	A	-	B	B	B	.	-
Potassium hydroxide < 50%	A	A	-	A	B	B	-	-
Potassium nitrate	A	A	-	-	-	-	-	-
Potassium permanganate < 10%	A	A	-	A	A	A	-	-
Potassium sulphate	A	A	-	-	-	-	-	-
S								
Sea water	A	A	-	A	A	A	-	-
Sodium chloride	A	A	-	-	-	-	c	D
Sodium hydroxide < 40%	A	A	-	A	B	A	D	D
Sodium sulphide	C	C	B	-	-	-	D	-
Sulphuric acid < 7.5%	D	D	C	-	-	-	D	C
Sulphuric acid 40%	D	D	-	-	-	-	D	D
T								
Tannin / tannic acid	-	-	-	-	-	-	C	D
Tar	A	A	A	-	A	-	B	A
Tar oil	A	A	A	-	-	-	C	A
Turpentine	A	A	A	-	-	-	C	A
W								
Water	A	A	A	A	A	A	A	A
Whiskey	A	A	A	-	-	-	B	-
Wine	A	A	A	-	A	-	B	-
Z								
Zinc chloride	D	D	-	A	D	-	D	D
Zinc sulphate	D	-	-	-	-	-	C	C