

Material characteristics of seals

Test procedure:

DIN 53461	Neoprene CR	Polyurethane PU	EPDM	Silicone - Si	Perbunane N NBR	TPE
Permitted temperature range	-40 to 90° C	-30 to 100° C	-30 to 100° C	-60 to 200° C	-35 to 100° C	-40 to 70° C

The resistance of seals to chemicals

	Neoprene CR	Polyurethane PU	EPDM	Silicone - Si	Perbunan N NBR	TPE
Acetic acid	75%	Δ	+	---	---	5%
Acetone	o	o	+	o	---	---
Ammonia	+	---	+	+	+	+
Benzene	o	+	---	+	o	Δ
Benzole	---	---	---	---	---	Δ
Brake fluid	o	Δ	o	+	o	Δ
Butane	Δ	+	---	---	+	Δ
Butanol	+	---	+	Δ	+	Δ
Calcium chloride	Δ	+	+	Δ	+	Δ
Carbon disulphide	---	o	---	+	---	Δ
Caustic potash solution	+	Δ	+	Δ	o	Δ
Chlorine benzole	---	---	---	---	---	Δ
Citric acid	Δ	Δ	+	+	---	Δ
Detergents	o	+	+	+	+	Δ
Diesel oil	o	+	---	o	+	Δ
Engine oils	o	o	---	+	+	Δ
Formaldehyde	+	+	+	+	40%	Δ
Formic acid	o	Δ	+	o	Δ	o at 10%
Frigen 113	o	Δ	---	Δ	+	Δ
Fruit juice	+	+	+	+	---	+
Glycerine	+	+	+	+	+	+
Heating oil	o	+	---	o	+	Δ
Hydraulic oil	---	+	---	o	o	Δ
Hydrocarbon tetrachloride	---	---	---	---	---	Δ
Hydrochloric acid	o	---	+	Δ	---	+
Lactic acid	+	+	+	Δ	+	o
Linseed oil	+	+	---	o	+	Δ
Lubricating oil	o	Δ	---	+	+	Δ
Methanol	+	---	+	+	+	Δ
Methylene chloride	---	---	---	---	---	Δ
Mineral oils	o	o	---	+	+	Δ
Nitric acid	---	---	10%	---	---	+
Potassium chloride	Δ	Δ	+	+	+	Δ
Potassium hydroxide	+	---	+	o	o	Δ
Soda lye	50%	---	+	---	o	50%
Soap suds	---	+	+	+	+	Δ
Sodium carbonate	Δ	Δ	+	Δ	+	Δ
Sodium chloride	+	Δ	+	+	+	Δ
Sodium hydroxide	50%	---	+	o	o	+
Sulphuric acid	50%	---	20%	25%	o	+
Tartaric acid	o	Δ	+	+	---	Δ
Toluol	---	---	---	---	---	Δ
Trichloroethylene	---	---	---	---	---	Δ
Turpentine oil	---	---	---	---	+	Δ
Water (distilled, river, tap, sea water)	+	+	+	+	+	+
Xylol	---	---	---	---	---	Δ
Zinc sulphate	Δ	Δ	+	+	+	Δ

Symbols:

+	resistant to all concentrations	° C	resistant to this max. temperature
%	resistant to this max. percentage concentration	---	not resistant
o	resistant under certain conditions	Δ	no information available