

TECHNICAL INFORMATION

5.2.3 Standard materials for hydraulic components

Material	ASTM D 2000	Media to be sealed with information on continuous temperature in °C																Comment					
		Low temperature °C permitted	Mineral lubricants				Synthetic lubricants	Mineral hydr. fluids	Biodegrad. hydr. fluids as per VDMA 24568 and DIN 24569			Fire retardant hydraulic fluids as per VDMA 24317 and DIN 24320 *			Other media								
			Engine oils	Transmission oils	Hypoid transmission oils	ATF oils	Greases	Polyalkylene glycols (PAG)	Polylphospholines (PAO)	HLP as per DIN 51524 Part 2	HLPV as per DIN 51524 Part 3	HETG rapeseed oil *	HEES – synthetic esters	HEPG polyglycols **	Group HFA	Group HFB	Group HFC		Group HFD ***	Heating oil EL and L	Brake fluid DOT 3/DOT 4	Water	Water /ye
94 AU 925	M 7 BG 910	-30	+	+	•	+	100	•	•	110	110	60	60	40	50	40	-	-	-	-	-	-	100
98 AU 928	M 7 BG 910	-25	+	+	•	+	100	•	•	110	110	60	60	40	50	40	-	-	-	-	-	-	100
95 AU V142	-	-30	+	+	•	+	110	•	•	110	110	60	80	50	50	40	-	-	-	-	50	-	+
95 AU V149	-	-30	+	+	•	+	110	•	•	110	110	60	80	50	50	40	-	-	-	-	50	-	+
93 AU V167	-	-30	+	+	•	+	100	•	•	100	100	60	80	50	60	40	-	-	-	-	60	-	80
93 AU V168	-	-30	+	+	•	+	100	•	•	100	100	60	80	50	60	40	-	-	-	-	60	-	80
70 FKM K655	-	-10	150	150	140	150	150	150	150	150	150	80	100	80	55	60	60	150	150	-	•	•	200
HGWH G517	-	-50	+	+	+	+	+	+	+	120	120	+	+	+	60	60	60	80	-	-	90	-	120
HGWH G600	-	-40	+	+	+	+	+	+	+	120	120	+	+	+	60	60	60	80	-	-	90	-	120
88 NBR 101	M 7 BG 910	-30	100	100	80	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	+	+	100
90 NBR 109	M 7 BG 910	-30	100	100	80	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	90	+	90
80 NBR 709	M 6 BG 814	-30	100	100	80	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	90	90	100 1)
72 NBR 872	M 2 BG 714	-35	100	100	90	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	90	90	100
80 NBR 878	M 7 BG 814	-20	100	100	80	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	90	+	90
80 NBR 99033	M 7 BG 814	-30	100	100	80	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	90	+	90
80 NBR 99035	M 7 BG 814	-30	100	100	80	100	100	80	80	100	100	80	•	80	55	60	60	-	80	-	90	+	90
85 NBR B203	-	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
70 NBR B209	M2 BG 710	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
89 NBR B217	M2 BG 910	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
81 NBR B219	M2 BG 810	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
79 NBR B246	M2 BG 810	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
87 NBR B247	M2 BG 910	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
70 NBR B276	M2 BG 710	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
75 NBR B281	M2 BG 821	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
90 NBR B283	M2 BG 910	-30	100	100	80	100	100	80	80	100	100	80	80	60	55	60	60	-	80	-	100	90	100
PA 4112	-	-30	+	+	+	+	+	+	+	130	130	+	+	+	55	60	60	90	-	-	90	-	100
PA 4201	-	-30	+	+	+	+	+	+	+	120	120	+	+	+	55	60	60	80	-	-	90	-	100
PA 6501	-	-30	+	+	+	+	+	+	+	120	120	80	80	50	60	60	60	80	-	-	60	-	+
PF 48	-	-50	+	+	+	+	+	+	+	120	120	+	+	+	55	60	60	80	-	-	90	-	120
POM 20	-	-40	+	+	+	+	+	+	+	100	100	+	+	+	55	60	60	80	-	-	80	-	100
POM P0202	-	-40	+	+	+	+	+	+	+	110	110	+	+	+	60	60	60	80	-	-	80	-	+
POM P0530	-	-40	+	+	+	+	+	+	+	110	110	+	+	+	60	60	60	80	-	-	80	-	+
PTFE B502	-	-40	+	+	+	+	+	+	+	200	200	80	100	80	-	-	-	200	+	+	-	+	200
PTFE B504	-	-40	+	+	+	+	+	+	+	200	200	80	100	80	-	-	-	200	+	+	-	+	200
PTFE B602	-	-30	+	+	+	+	+	+	+	200	200	80	100	80	-	-	-	200	+	+	-	+	200
PTFE GM201	-	-30	+	+	+	+	+	+	+	100	100	80	100	60	60	60	60	150	+	+	100	+	200
PTFE/15 177026	-	-80	+	+	+	+	+	+	+	200	200	80	100	100	+	+	+	150	+	+	150	+	200
PTFE/25 177027	-	-80	+	+	+	+	+	+	+	200	200	80	100	100	+	+	+	150	+	+	150	+	200
PTFE/25 177030	-	-80	+	+	+	+	+	+	+	200	200	80	100	100	+	+	+	150	+	+	150	+	200
PTFE/40 177024	-	-80	+	+	+	+	+	+	+	200	200	80	100	100	+	+	+	150	+	+	150	+	200
PTFE/60 177023	-	-80	+	+	+	+	+	+	+	200	200	80	100	100	+	+	+	150	+	+	150	+	200
97 TPE113TP	-	-30	+	+	•	+	100	•	•	110	110	60	80	50	60	40	-	-	-	-	60	-	+

- + = resistant, in general not used for these media
- = of limited resistance
- = not resistant
- * = operating limits defined by the medium
- ** = only for static use; an additional test is required for dynamic use
- *** = resistance depends on the HFD type
- 1) = permissible low temperature pneumatics: -20 °C



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

5.2.4 Special materials for hydraulic components

Material	ASTM D 2000	Media to be sealed with information on continuous temperature in °C																					
		Mineral lubricants										Synthetic lubricants		Mineral hydraulic fluids		Biodegrad. hydraulic fluids as per VDMA 24568 and DIN 24569		Fire retardant hydraulic fluids as per VDMA 24317 and DIN 24320*		Other media			
		Low temperature °C permitted	Engine oils	Transmission oils	Hypoid transmission oils	ATF oils	Greases	Polyalkyleneglycols (PAG)	Polyalphaolefines (PAO)	HLP as per DIN 51524 Part 2	HVP as per DIN 51524 Part 3	HETG rape seed oil *	HEES - synthetic esters	HEPG polyglycols **	Group HFA	Group HFB	Group HFC	Group HFD ***	Heating oil EL and L	Brake fluid DOT 3/DOT 4	Water	Water/lye	Air
94 AU 20889	M 7 BG 910	-25	+	+	•	+	110	•	•	110	110	60	80	50	60	60	50	-	-	60	-	110	
80 EPDM L700	M 2 CA 810	-40	-	-	-	-	-	-	-	-	-	-	-	-	60	100	-	+	150	130	150		
85 FKM 580	M 3 HK 910	-5	150	150	140	150	150	150	150	150	150	80	100	100	55	60	60	150	150	-	80	•	200
86 FKM K664	M 2 HK 910	-10	150	150	140	150	150	150	150	150	150	80	100	80	55	60	60	150	150	-	-	-	200
90 HNBR 136428	M 4 DH 910	-25	120	120	100	120	120	100	120	120	120	80	•	100	55	60	60	-	+	-	120	120	130
85 HNBR 137891	M 4 CH 910	-25	120	120	100	120	120	100	120	120	120	80	•	100	55	60	60	-	+	-	120	120	130
70 HNBR U463	-	-25	120	120	100	120	120	120	120	120	120	80	•	100	55	60	60	-	80	-	120	120	130
80 HNBR U464	-	-25	120	120	100	120	120	120	120	120	120	80	•	100	55	60	60	-	80	-	120	120	130
70 NBR B262	M 2 BG 710	-35	100	100	80	100	100	80	80	100	100	80	•	60	55	60	60	-	80	-	80	90	100
75 NBR B280	M 2 BG 810	-45	80	80	60	80	80	60	60	80	80	60	•	60	55	60	60	-	80	-	80	80	80
PTFE B604	-	-30	+	+	+	+	+	+	+	200	200	80	100	80	-	-	200	+	+	-	+	200	
PTFE M202	-	-30	+	+	+	+	+	+	+	100	100	80	100	60	60	60	150	+	+	100	+	200	
97 TPE106 TP	-	-30	+	+	•	+	100	•	•	110	110	60	80	50	60	60	40	-	-	60	-	140	

- + = resistant, in general not used for these media
- = of limited resistance
- = not resistant
- * = operating limits defined by the medium
- ** = only for static use; an additional test is required for dynamic use
- *** = resistance depends on the HFD type

5.4 Chemical resistance

The information in the following table has been collated from our own testing, recommendations from our base material suppliers, as well as reports on the experiences of our customers.

Nevertheless, this information can only serve as an orientation. It cannot be transferred to all operating conditions without further work.

Of the numerous factors that act on seals and moulded parts, although chemical resistance is very important, it is only one part of the overall operating conditions. Other factors that should be taken into account during the selection of materials from Simrit and the shape of the seal are:

- speed and stroke length
- linear velocity on axially moving parts
- static or dynamic load
- surface finish of the metal parts
- type of material for the machine parts to be sealed.

If a special note is not given in the tables, then normal purity, concentration, and room temperature is assumed for the relevant medium. In case of doubt, especially for untested or new applications, we recommend you consult us so that special studies can be carried out as required.

The elastomers listed in the tables are given with their chemical names as well as with the abbreviated codes stipulated in ASTM D 1418.

Chemical names, generally used names or trade names are used for the media.

Explanation of the material codes	
NBR	acrylonitrile-butadiene rubber
HNBR	hydrogenated acrylonitrile-butadiene rubber
CR	chlorobutadiene rubber
ACM	acrylate rubber
VMQ	silicone rubber
FVMQ	fluorosilicone rubber
FKM	fluoro elastomer
FFKM	perfluoro elastomer
AU	polyurethane
NR	natural rubber
SBR	styrene-butadiene rubber
EPDM	ethylene propylene diene rubber
IIR	butyl rubber
CSM	chlorosulphonated polyethylene
PTFE	polytetrafluoroethylene



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
accumulator acid (sulphuric acid)	60	C	C	C	E	E	E	A	A	C	B	B	A	A	A	A
acetaldehyde with acetic acid, 90/10%	20	C	C	C	C	C	C	A	E	B	B	B	B	B	B	A
acetamide	20	D	D	E	E	E	D	E	A	E	E	E	D	D	D	A
acetic acid, aqueous, 25 to 60%	60	C	C	E	E	E	E	E	A	E	C	C	A	A	A	A
acetic acid, aqueous, 85%	100	C	C	E	E	E	E	E	A	E	C	C	D	D	D	A
acetic acid, glacial	60	C	C	C	E	E	E	C	B	C	C	C	B	B	B	A
acetic anhydride	20	C	C	A	E	E	E	C	A	E	B	A	A	A	A	A
acetic anhydride	80	C	C	B	E	E	E	C	B	E	C	B	D	D	D	A
acetone	20	C	C	C	C	C	C	C	A	C	A	A	A	A	D	A
acetophenone	20	E	E	E	E	E	E	E	A	E	E	E	D	D	D	A
acetylene	60	A	A	A	A	A	A	A	A	D	A	A	A	A	A	A
acrylic acid, ethyl ester	20	C	C	E	C	C	C	A	C	E	E	D	B	E	E	A
acrylonitrile	60	C	C	C	E	C	C	C	A	E	C	C	D	C	E	A
adipic acid, aqueous	20	A	A	A	D	D	D	A	A	D	A	A	A	A	A	A
aero-engine fuels JP3 (MIL-J-5624)	20	A	B	C	B	C	A	A	A	B	C	C	C	C	C	A
aero-engine fuels JP4 (MIL-J-5624)	20	A	B	C	B	C	B	A	A	B	C	C	C	C	C	A
aero-engine fuels JP5 (MIL-J-5624)	20	A	B	C	B	C	B	A	A	B	C	C	C	C	C	A
aero-engine fuels JP6 (MIL-J-25656)	20	A	B	C	B	C	B	A	A	B	C	C	C	C	C	A
air, containing oil	80	A	A	A	A	A	A	A	A	A	C	B	C	C	A	A
air, pure	80	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
allyl alcohol	80	B	B	B	E	E	E	C	A	C	A	A	A	A	B	A
alum, aqueous	60	C	C	C	E	E	E	A	A	C	B	B	A	A	A	A
alum, aqueous	100	A	A	A	E	D	D	A	A	E	C	A	A	A	A	A
aluminium sulphate, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
aluminium sulphate, aqueous	100	A	A	B	E	D	D	C	A	C	B	A	A	A	A	A
ammonia solution	40	A	A	B	C	B	C	A	C	A	C	A	A	A	A	A
ammonia, 100%	20	B	B	B	E	E	E	C	B	C	A	A	A	A	A	A
ammonium acetate, aqueous	60	A	A	B	E	D	D	C	A	C	A	A	A	A	A	A
ammonium carbonate	60	A	A	B	E	D	D	C	A	C	A	A	A	A	A	A
ammonium chloride, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
ammonium fluoride, aqueous	20	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
ammonium fluoride, aqueous	20	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
ammonium fluoride, aqueous	100	A	A	B	E	D	D	C	A	E	C	A	A	A	A	A
ammonium fluoride, aqueous	100	A	A	B	E	D	D	C	B	E	C	A	A	B	A	A
ammonium nitrate, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
ammonium nitrate, aqueous	100	A	A	B	E	D	D	C	A	E	C	A	A	A	A	A
ammonium phosphate, aqueous	60	A	A	B	E	D	D	C	A	C	A	A	A	A	A	A
ammonium sulphate	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
ammonium sulphate	100	A	A	B	E	D	D	C	A	C	C	A	A	A	A	A
ammonium sulphide, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
ammonium sulphide, aqueous	100	B	B	B	E	D	D	C	A	C	C	B	A	A	A	A
amyl acetate	20	C	C	E	E	E	E	C	A	E	A	C	A	A	D	A
amyl alcohol	60	B	B	B	E	D	D	C	A	C	A	A	A	A	A	A
aniline	60	C	C	C	E	C	C	C	A	C	C	C	E	E	E	A
aniline hydrochloride	20	B	B	B	E	B	D	A	A	C	C	C	B	B	B	A
aniline hydrochloride	100	C	C	D	E	E	E	E	A	C	C	C	E	E	E	A
anisole	20	C	C	C	E	E	E	E	A	E	C	C	E	E	E	A
anon	20	C	C	C	E	E	E	E	A	E	C	C	C	C	E	A
anthraquinone sulphonc acid, aqueous	30	B	B	E	E	E	E	E	A	C	A	A	A	A	A	A
antifreeze (motor vehicle)	60	A	A	A	E	A	A	A	A	C	A	A	A	A	A	A
antimony chloride, aqueous	20	A	A	A	A	A	A	A	A	E	A	A	A	A	A	A
antimony trichloride, anhydrous	60	A	A	B	E	E	E	E	A	E	A	A	A	A	A	A
aqua regia	20	C	C	C	C	C	C	C	A	C	C	C	C	C	C	A
arsenic acid, aqueous	60	A	A	B	D	D	D	A	A	C	A	A	A	A	A	A
arsenic acid, aqueous	100	A	A	B	E	D	D	C	A	E	C	A	A	A	A	A
asphalt	100	E	E	E	D	E	E	D	A	E	E	E	E	E	E	A
ASTM fuel A	60	A	A	B	C	A	A	A	A	C	C	C	C	C	C	A
ASTM fuel B	60	B	B	C	C	C	A	A	A	C	C	C	C	C	C	A
ASTM fuel C	60	C	C	C	C	C	B	A	A	C	C	C	C	C	C	A
ASTM oil No. 1	100	A	A	A	A	A	A	A	A	B	C	C	C	C	C	A
ASTM oil No. 2	100	A	A	B	A	A	A	A	A	B	C	C	C	C	C	A
ASTM oil No. 3	100	A	B	B	A	B	A	A	A	B	C	C	C	C	C	A
ATE brake fluid	100	C	C	B	C	A	A	C	D	E	A	A	A	A	E	A
ATF oil	100	A	A	B	C	B	A	A	A	B	C	C	C	C	C	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
barium hydroxide, aqueous	60	A	A	A	E	D	D	A	A	C	A	A	A	A	A	A
barium salts, aqueous	60	A	A	B	E	A	A	A	A	C	A	A	A	A	A	A
beef tallow emulsion, sulphonated	20	A	A	B	E	B	B	A	A	E	C	C	C	C	A	A
beer	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
benzaldehyde, aqueous	60	C	C	C	E	E	E	A	A	C	B	B	B	B	E	A
benzene	20	C	C	C	C	C	B	B	A	C	C	C	C	C	C	A
benzoic acid, aqueous	60	A	A	B	E	A	A	A	A	C	A	A	A	A	A	A
benzyl alcohol	60	E	E	E	E	B	B	E	A	C	D	D	D	D	D	A
bisulphite lye	50	B	B	B	E	D	D	E	B	C	A	A	A	A	A	A
bitumen	60	C	C	C	E	E	E	A	A	E	E	E	E	E	E	A
black lye	100	B	B	B	E	E	E	A	A	E	B	B	A	A	A	A
blast furnace gas	100	B	B	B	A	A	A	A	A	D	C	B	B	B	B	A
bleaching lye	60	C	C	B	E	E	E	B	A	C	C	B	A	B	A	A
bone oil	60	A	A	C	A	B	A	A	A	A	C	C	C	C	C	A
borax, aqueous	60	A	A	B	E	A	A	A	A	C	A	A	A	A	A	A
boric acid, aqueous	60	A	A	B	E	A	A	A	A	C	A	A	A	A	A	A
brake fluids (glycoether)	80	C	C	B	C	A	A	E	D	E	A	A	A	A	D	A
bromine water, saturated cold	20	C	C	C	E	E	E	E	D	E	C	C	D	D	B	A
bromine, liquid	20	C	C	C	E	E	E	D	E	C	C	D	D	B	A	
bromine, vapour	20	C	C	C	E	E	E	D	E	C	C	D	D	B	A	
bromobenzene	20	E	E	E	E	E	D	D	D	E	E	E	E	E	E	A
bunker oil	60	B	B	E	D	E	D	D	D	E	E	E	E	E	E	A
butadiene	60	D	D	B	E	B	A	A	A	D	C	C	C	C	C	A
butane, gaseous	20	A	A	B	A	D	A	A	A	A	C	C	C	C	C	A
butanediol, aqueous	20	A	A	B	E	D	D	B	A	D	A	A	A	A	A	A
butanediol, aqueous	60	A	A	A	E	D	D	D	D	C	B	A	A	A	A	A
butanol, aqueous	20	A	B	C	B	A	A	B	A	A	A	A	A	A	A	A
butanol, aqueous	60	C	C	B	E	D	D	E	A	C	A	A	A	A	A	A
butter	20	A	A	A	D	A	A	A	A	A	E	E	E	E	E	A
butter	80	A	A	B	D	D	D	A	A	D	C	C	E	E	E	A
butyl acetate	20	C	C	C	E	E	E	C	A	E	B	C	B	B	C	A
butyl alcohol	60	C	C	B	E	D	D	E	A	C	A	A	A	A	A	A
butyl phenol	20	C	C	C	C	C	E	B	A	C	C	C	C	C	C	A
butylene glycol	60	A	A	A	E	A	A	B	A	A	A	A	A	A	A	A
butylene, liquid	20	A	A	B	D	D	A	A	A	A	C	C	E	E	E	A
butynediol	20	A	A	B	E	D	D	B	B	A	A	A	A	A	A	A
butyraldehyde	20	E	E	E	E	E	E	E	B	E	B	B	B	B	B	A
butyric acid, aqueous	20	A	A	B	E	D	D	A	A	D	C	D	D	D	D	A
calcium bisulphite, aqueous	20	A	A	A	E	D	D	A	A	A	A	A	A	A	A	A
calcium chloride, aqueous	100	A	A	A	E	A	A	A	A	C	C	A	A	A	A	A
calcium hydroxide, aqueous	20	A	A	A	E	A	A	A	A	C	A	A	A	A	A	A
calcium hypochlorite, aqueous	60	C	C	B	C	E	E	B	A	C	C	C	A	A	A	A
calcium nitrate, aqueous	40	A	A	A	E	A	A	A	A	E	A	A	A	A	A	A
calcium phosphate, aqueous	20	A	A	A	E	A	A	A	A	D	A	A	A	A	A	A
camphor	20	A	A	B	E	E	E	B	A	E	C	C	C	C	C	A
camphorated oil	20	A	B	C	E	E	E	B	A	E	C	C	C	C	B	A
carbolineum	60	E	E	E	E	E	D	D	A	E	E	E	B	B	B	A
carbolineum	80	C	C	C	C	C	A	A	A	A	C	C	C	C	C	A
carbon dioxide, dry	60	A	A	A	A	A	A	A	A	D	A	A	A	A	A	A
carbon disulphide	20	C	C	C	E	C	E	A	A	C	C	C	C	C	B	A
carbon monoxide, dry	60	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
carbon monoxide, moist	20	A	A	A	A	A	A	A	A	E	A	A	A	A	A	A
carbon tetrachloride	60	C	C	C	E	E	E	A	A	E	C	C	C	C	C	A
caustic potash, 50%	60	B	B	B	C	C	C	C	B	C	B	B	A	A	A	A
caustic soda	20	B	B	B	C	C	C	C	A	E	B	B	A	A	A	A
cellosolve	20	E	E	E	E	E	E	E	D	E	E	E	B	B	B	A
chloral hydrate, aqueous	60	C	C	C	E	E	E	B	A	E	C	B	B	B	B	A
chloramine, aqueous	20	A	A	A	D	D	D	E	B	D	A	A	A	A	A	A
chloroethanol	60	C	C	C	E	E	E	C	B	E	C	C	B	B	B	A
chloric acid, aqueous	80	C	C	C	E	E	E	B	A	E	C	C	B	B	B	A
chlorinated lime, aqueous	60	C	C	C	E	E	E	A	A	C	C	C	A	A	A	A
chlorine water, saturated	20	C	C	C	E	E	E	A	A	E	C	C	A	B	A	A
chlorine, liquid	20	C	C	C	E	E	E	B	B	E	C	C	B	B	B	A
chlorine, moist gaseous	20	C	C	C	E	E	E	B	B	E	C	C	B	B	B	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
chlorine, wet gaseous	20	C	C	C	E	E	E	B	B	B	C	C	B	B	B	A
chlorobenzene	20	C	C	C	C	C	C	B	B	D	C	C	C	C	C	A
chlorobromomethane	20	E	E	E	E	E	B	B	B	E	E	E	B	B	B	A
chloroform	20	C	C	C	E	E	E	B	A	C	C	C	C	C	C	A
chlorsulphonic acid	20	C	C	C	C	C	C	E	D	E	C	C	C	C	C	A
chromic acid, aqueous	60	C	C	C	E	E	E	A	A	E	C	C	D	D	A	A
chromic acid/sulphuric acid/water, 50/15/35%	40	C	C	C	E	E	E	A	A	E	C	C	D	D	A	A
citric acid, aqueous	60	A	A	B	E	D	D	F	A	E	A	A	A	A	A	A
clophen T 64	100	C	C	C	D	B	D	A	A	C	C	C	E	E	E	A
clophen-A types	100	C	C	C	D	A	A	A	A	C	C	C	E	E	E	A
coconut fat	80	A	A	B	A	A	A	A	A	A	C	C	C	C	C	A
coconut fatty alcohol	20	A	A	A	D	D	D	A	A	E	B	B	B	B	B	A
coconut oil	60	A	A	B	A	A	A	A	A	A	C	C	C	C	C	A
coconut oil	80	A	A	B	D	D	D	A	A	D	C	C	E	E	E	A
cod-liver oil	20	A	A	A	A	A	A	A	A	A	B	B	B	B	B	A
coking-oven gas	80	C	C	C	E	D	D	A	A	E	C	C	C	C	C	A
copper fluoride, aqueous	50	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
copper nitrate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
copper sulphate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
copper(I) chloride, aqueous	20	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A
cottonseed oil	20	A	A	B	D	D	D	A	A	A	B	B	B	B	B	A
cresol, aqueous	45	C	C	C	E	E	E	A	A	A	C	C	C	C	C	A
crotonaldehyde	20	E	E	E	E	E	E	C	B	D	B	B	A	A	A	A
crude oil	20	A	B	B	A	B	A	A	A	A	C	C	C	C	B	A
cyclohexane	20	A	A	C	B	B	B	A	A	A	C	C	C	C	E	A
cyclohexanol	20	A	A	C	E	E	B	E	A	A	C	C	C	C	C	A
cyclohexanone	20	C	C	C	E	E	E	E	A	E	C	C	C	C	C	A
cyclohexylamine	20	C	C	C	E	E	E	C	B	E	C	C	C	C	C	A
dekahydronaphthalin (Dekalin)	20	C	C	C	B	E	E	B	B	E	C	C	C	C	C	A
dekahydronaphthalin (Dekalin)	60	C	C	C	B	E	E	B	B	E	C	C	C	C	C	A
desmodur T	20	C	C	C	C	E	E	E	B	B	C	C	C	C	C	A
desmophen 2000	80	A	A	D	D	D	D	D	D	E	D	A	D	D	D	A
detergent, synthetic	60	A	A	B	C	D	D	A	A	D	A	A	A	A	A	A
detergents	100	A	A	B	E	E	E	B	B	E	C	B	A	A	A	A
dextrin, aqueous	60	A	A	A	E	A	A	A	A	C	A	A	A	A	A	A
diacetone alcohol	20	B	B	B	E	D	D	E	A	D	A	A	A	A	A	A
dibenzyl ether	20	C	C	C	E	E	E	C	A	E	C	C	B	B	B	A
dibutyl ether	20	C	C	C	E	E	E	C	A	E	C	C	B	B	B	A
dibutyl phtalate	20	C	C	C	E	A	A	A	A	A	C	C	D	D	D	A
dibutyl phtalate	60	C	C	C	E	A	A	B	A	D	C	C	D	D	D	A
dibutyl sebacate	60	C	C	C	E	B	B	E	B	D	C	C	C	C	C	A
dichloroacetic acid	60	C	C	C	E	E	E	C	B	C	C	C	A	A	A	A
dichlorethane	20	C	C	C	C	C	D	B	B	C	C	C	C	C	E	A
dichlorethylene	20	C	C	C	E	E	E	B	B	E	C	C	E	E	E	A
dichlorobenzene	20	C	C	C	E	E	B	A	A	E	C	C	C	C	C	A
dichlorobutylene	20	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
dichloromethane	20	C	C	C	C	C	E	A	A	C	C	C	C	C	C	A
diesel fuel	60	A	A	B	B	B	A	A	A	B	C	C	C	C	C	A
diethyl ether	20	C	C	C	E	E	E	C	A	E	C	C	C	C	C	A
diethyl sebacate	20	C	C	C	E	E	E	B	B	E	C	C	B	B	B	A
diethylamine	20	B	B	C	E	E	E	C	B	E	C	C	A	A	A	A
diethylene glycol	20	A	A	A	E	A	A	A	A	E	A	A	A	A	A	A
diglycolic acid, aqueous	60	B	B	B	E	D	D	A	A	E	A	A	A	A	A	A
dihexyl phtalate	60	C	C	C	E	E	E	C	B	E	C	C	E	E	C	A
diisobutyl ketone	60	C	C	C	E	E	E	C	B	E	B	C	A	A	D	A
dimethyl ether	20	C	C	C	E	E	E	C	B	E	B	C	A	A	A	A
dimethylamine	20	C	C	C	E	E	E	C	B	E	C	C	A	A	A	A
dimethylformamide	60	C	C	C	D	C	D	C	B	C	B	C	B	B	B	A
dinonyl phtalate	30	C	C	C	E	E	E	C	B	E	C	C	E	E	C	A
dioctyl phtalate	60	C	C	C	C	E	E	E	B	A	E	C	E	E	C	A
dioctyl sebacate	60	C	C	C	E	E	E	C	B	E	C	C	E	E	E	A
dioxane	60	C	C	C	E	E	E	C	D	E	B	B	B	B	B	A
dipentene	20	B	B	C	D	D	D	A	A	D	C	C	C	C	C	A
diphenyl	20	C	C	C	E	E	E	A	A	D	C	C	C	C	C	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
diphenyl oxide	100	E	E	E	E	E	E	E	D	E	E	E	E	E	E	A
engine oils	100	A	A	B	A	B	A	A	A	B	C	C	C	C	C	A
epichlorhydrin	20	E	E	E	E	E	E	C	D	E	E	E	B	E	E	A
ethane	20	A	A	B	A	B	A	A	A	A	C	C	C	C	C	A
ethanol (spirit)	20	B	B	B	E	B	A	F	A	B	A	A	A	A	A	A
ethanol (spirit)	80	C	C	C	E	D	D	F	A	C	A	A	A	A	A	A
ethanol (spirit) with acetic acid (fermentation mixture)	20	C	C	B	E	E	E	F	A	E	A	A	A	A	A	A
ethanol (spirit) with acetic acid (fermentation mixture)	60	C	C	C	E	E	E	F	A	E	A	A	A	A	A	A
etheral oils	20	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
ethyl acetate	20	C	C	E	E	E	E	C	B	E	C	C	B	D	B	A
ethyl acetate	60	C	C	C	E	E	E	C	B	C	C	C	C	C	C	A
ethyl acrylate	20	C	C	E	C	C	C	B	E	E	E	D	B	E	E	A
ethyl benzene	20	C	C	C	C	C	B	B	A	D	C	C	C	C	C	A
ethyl chloride	20	B	B	B	C	C	E	B	A	B	B	B	B	B	D	A
ethyl ether	20	C	C	C	C	C	C	A	C	B	C	B	B	B	C	A
ethylene chloride	20	B	B	B	C	C	E	B	A	B	B	B	B	B	D	A
ethylene diamine	60	C	C	C	C	C	E	C	B	C	B	B	A	A	D	A
ethylene glycol	100	A	A	B	E	B	D	A	A	C	C	A	A	A	D	A
ethylene trichloride	20	E	E	E	E	E	D	B	E	E	E	E	E	E	E	A
exhaust gases, containing carbon dioxide	60	A	A	A	A	A	A	A	A	D	A	A	A	A	A	A
exhaust gases, containing carbon monoxide	60	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
exhaust gases, containing hydrogen chloride	60	B	B	A	E	D	D	A	A	E	A	A	A	A	A	A
exhaust gases, containing hydrogen fluoride, traces	60	A	A	A	D	D	D	A	A	E	A	A	A	A	A	A
exhaust gases, containing nitrous gases, traces	60	D	D	A	C	C	B	A	A	E	C	D	A	B	A	A
exhaust gases, containing nitrous gases, traces	80	D	D	A	C	C	B	A	A	E	C	D	A	B	A	A
exhaust gases, containing sulphur dioxide	60	B	B	A	E	D	D	A	A	E	B	B	A	A	A	A
exhaust gases, containing sulphuric acid	60	B	B	B	E	D	D	A	A	E	B	B	A	A	A	A
exhaust gases, containing sulphuric acid	80	C	C	B	E	D	D	A	A	E	B	B	A	A	A	A
FAM test fuels DIN 51 604-A	20	B	B	C	E	C	A	A	A	C	C	C	C	C	C	A
FAM test fuels DIN 51 604-C	20	C	C	C	C	C	B	F	A	C	C	C	C	C	C	A
fats, mineral, animal or vegetable	80	A	A	B	A	A	A	A	A	A	C	C	C	C	B	A
fatty acids	100	B	B	B	E	E	E	A	A	E	E	E	E	E	B	A
fatty alcohol	20	A	A	A	A	A	D	A	A	E	B	B	B	B	B	A
fermentation gas	20	A	A	A	D	A	C	A	A	B	C	C	E	E	A	A
fertiliser salt, aqueous	60	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
fish oil	20	A	A	A	A	A	A	A	A	D	B	B	B	B	B	A
fluorine, dry	60	C	C	E	E	E	E	E	D	E	C	E	E	E	E	A
fluorobenzene	20	C	C	C	C	C	C	B	A	E	C	C	C	C	C	A
fluorocarbon oils	100	D	D	D	D	A	D	D	D	D	D	D	D	D	D	A
fluorosilicic acid, aqueous	60	A	A	B	E	E	E	A	A	E	A	A	A	A	A	A
formaldehyde, aqueous	60	B	B	B	C	D	D	E	B	E	A	A	A	A	A	A
formamide	60	C	C	C	E	E	E	B	A	E	A	D	A	A	A	A
formic acid, aqueous	60	C	C	C	E	E	E	E	A	C	B	B	B	B	B	A
freon according DIN 8962 R 11	20	A	B	B	E	E	D	B	E	E	E	E	E	E	E	A
freon according DIN 8962 R 12	20	A	B	A	E	E	E	B	E	A	B	B	B	B	B	A
freon according DIN 8962 R 13	20	A	B	A	E	E	E	B	E	B	E	A	A	A	A	A
freon according DIN 8962 R 22	20	C	C	A	E	E	D	C	E	B	A	A	A	A	A	A
freon according DIN 8962 R 113	20	A	B	A	E	E	D	B	E	B	E	E	E	E	E	A
freon according DIN 8962 R 114	20	A	B	A	E	E	D	D	E	A	A	A	A	A	A	A
freon according DIN 8962 R 134a	20	B	B	A	E	E	D	C	C	E	E	E	A	E	E	A
fruit juice	100	B	B	B	E	A	D	A	A	C	C	A	A	A	A	A
furane	20	E	E	E	E	E	E	C	B	C	E	E	E	E	E	A
furfural	20	C	C	E	E	E	E	B	C	E	E	E	E	E	E	A
furfuryl alcohol	20	E	E	E	E	E	E	E	B	C	E	E	E	E	E	A
furnace gas, dry	60	C	C	B	E	A	A	A	A	E	A	A	A	A	A	A
gas liquor	40	A	A	C	C	C	C	A	A	E	C	C	C	C	C	A
gas oil	80	A	A	B	A	B	A	A	A	A	C	C	C	C	C	A
gasohol	20	C	C	C	C	C	B	F	A	C	C	C	C	C	C	A
gelatine, aqueous	40	A	A	B	B	A	A	A	A	E	A	A	A	A	A	A
glaubers salt, aqueous (sodium sulphate)	20	A	A	B	B	D	D	A	A	E	A	A	A	A	A	A
glucose, aqueous	80	A	A	B	E	A	A	A	A	E	B	A	A	A	A	A
glue (size)	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
glycerol chlorohydrin	60	C	C	C	E	E	E	E	B	E	B	B	B	B	B	A
glycerol, aqueous	100	A	A	B	E	A	A	A	A	E	B	A	A	A	A	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
glycine, aqueous, 10%	40	B	B	A	D	D	D	A	A	E	B	B	A	A	B	A
glycol, aqueous	100	A	A	B	E	B	D	B	A	C	B	A	A	A	A	A
glycolic acid, aqueous, 37%	20	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
grape sugar, aqueous	80	A	A	A	E	A	A	A	A	E	C	A	A	A	A	A
heating oil, mineral-oil based	60	A	A	B	A	B	A	A	A	A	C	C	C	C	C	A
henkel P 3 solution	100	A	A	B	E	D	D	E	A	E	B	A	A	A	A	A
heptane	60	A	A	B	A	C	A	A	A	A	C	C	C	C	C	A
hexachlorobutadiene	20	C	C	E	E	E	E	A	A	E	C	C	E	E	E	A
hexachlorocyclohexane	20	E	E	E	E	E	D	A	A	B	C	C	E	E	E	A
hexaldehyde	20	C	C	C	E	E	E	E	B	E	C	C	E	E	E	A
hexane	60	A	A	B	A	C	A	A	A	A	C	C	C	C	C	A
hexane triol	20	A	A	B	E	A	A	A	A	E	D	D	A	A	A	A
hexene	20	B	B	B	A	D	A	A	A	A	C	C	C	C	B	A
hydraulic fluids, hydraulic oils DIN 51524	80	A	A	B	A	B	A	A	A	A	C	C	C	C	C	A
hydraulic fluids, oil-in-water emulsions HFA	55	A	A	B	E	D	D	F	A	E	C	C	C	C	C	A
hydraulic fluids, phosphoric acid ester HFD	80	C	C	C	C	C	C	F	A	C	C	C	F	F	C	A
hydraulic fluids, polyglycol-water emulsions HFC	60	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
hydraulic fluids, water-in-oil emulsions HFB	60	F	F	B	E	D	D	F	A	E	C	C	C	C	C	A
hydrazine hydrate	20	B	B	B	E	E	B	E	B	B	C	B	A	A	A	A
hydrobromic acid, aqueous	60	B	B	B	E	E	E	E	D	C	D	D	A	A	A	A
hydrochloric acid, concentrated	20	C	C	C	E	E	E	A	A	E	B	B	A	A	A	A
hydrochloric acid, concentrated	80	C	C	C	E	E	E	A	A	E	C	C	A	A	A	A
hydrochloric acid, diluted	20	A	B	B	E	E	E	A	A	C	A	A	A	A	A	A
hydrocyanic acid	20	D	D	B	E	A	D	D	A	E	D	D	D	A	A	A
hydrofluoric acid, concentrated	20	E	E	E	E	E	E	E	B	E	E	B	B	B	B	A
hydrofluosilicic acid	100	D	D	D	E	D	D	D	D	E	C	D	D	D	D	A
hydrogen	20	A	A	A	A	A	A	A	A	E	A	A	A	A	A	A
hydrogen chloride gas	60	C	C	C	E	E	E	A	A	E	B	B	A	A	A	A
hydrogen peroxide, aqueous	20	C	C	C	E	B	B	A	A	E	C	C	A	A	A	A
hydrogen phosphide	20	C	C	B	E	D	D	C	C	E	A	D	A	A	A	A
hydrogen sulphide, aqueous	60	B	B	B	E	E	E	A	A	E	B	A	A	A	A	A
hydrogen sulphide, dry	60	B	B	B	E	D	D	A	A	D	B	B	A	A	A	A
hydroquinone, aqueous	20	A	A	B	B	D	D	A	A	E	B	B	A	A	A	A
hydrosulphite, aqueous	40	B	B	B	E	D	D	E	B	E	A	A	A	A	A	A
hydroxylamine sulphate, aqueous	35	A	A	B	E	A	A	E	B	E	A	A	A	A	A	A
ink	20	A	B	A	A	A	A	B	A	A	A	A	A	A	A	A
iodine, tincture	20	A	A	B	E	B	B	A	A	C	A	A	A	A	A	A
iodoform	20	E	E	E	E	E	E	A	A	E	E	E	A	A	E	A
iron(III) chloride, aqueous	40	A	A	A	E	D	D	A	A	D	A	A	A	A	A	A
isobutyl alcohol	20	B	B	A	C	A	B	A	A	C	A	A	A	A	A	A
isooctane	20	A	A	B	A	B	A	A	A	B	C	C	C	C	C	A
isophorone	20	D	D	D	D	D	D	D	B	B	D	D	A	A	D	A
isopropanol	60	B	B	B	C	A	A	F	A	E	A	A	A	A	A	A
isopropyl acetate	80	C	C	C	C	C	C	C	B	E	C	C	B	B	B	A
isopropyl chloride	20	C	C	C	C	C	B	A	A	C	C	C	C	C	C	A
isopropyl ether	60	C	C	C	C	C	C	A	C	E	C	C	E	E	E	A
kerosene	20	A	B	C	A	B	A	A	A	A	C	C	C	C	C	A
lactam	80	C	C	C	E	E	E	C	B	E	C	C	C	C	C	A
lactic acid, aqueous 40%	40	A	A	A	E	D	D	A	A	A	A	A	A	A	A	A
lanoline (wool grease)	60	A	A	B	A	A	A	A	A	A	B	B	C	C	B	A
laughing gas (nitrous oxide)	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
lauryl alcohol	20	A	A	A	D	D	D	A	A	D	B	B	B	B	B	A
lavender oil	20	B	B	C	B	E	B	A	A	D	E	E	E	E	E	A
lead acetate, aqueous	60	A	B	B	E	D	D	A	A	C	A	A	A	A	A	A
lead acetate, aqueous	100	A	B	B	E	D	D	C	A	C	C	A	A	A	A	A
lead nitrate, aqueous	20	A	A	B	D	D	D	A	A	C	A	A	A	A	A	A
lemon juice, undiluted	20	A	A	B	E	A	D	F	A	D	A	A	D	D	D	A
linoleic acid	20	B	B	E	E	B	D	B	A	D	E	E	E	E	E	A
linseed oil	60	A	A	A	D	A	D	A	A	B	B	B	B	B	B	A
liqueurs	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
lithium bromide, aqueous	20	A	A	B	E	A	A	A	A	A	A	A	A	A	A	A
lithium chloride, aqueous	20	A	A	B	E	A	A	A	A	A	A	A	A	A	A	A
machine oil, mineral	80	A	A	B	A	B	A	A	A	A	C	C	C	C	C	A
magnesium chloride, aqueous	100	A	A	B	C	D	D	A	A	E	A	A	A	A	A	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
magnesium sulphate, aqueous	100	A	A	B	C	D	D	A	A	E	E	A	A	A	A	A
maize oil	60	A	A	B	D	D	D	A	A	D	C	C	C	C	E	A
maleic acid anhydride	60	E	E	E	E	E	D	A	A	E	E	E	E	E	E	A
maleic acid, aqueous	100	A	A	B	E	D	D	A	A	E	C	C	A	A	A	A
margarine	80	A	A	B	A	A	A	A	A	A	C	C	C	C	C	A
menthol	60	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
mercury	60	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
mercury salts, aqueous	60	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
mesityl oxide	20	D	D	E	E	E	D	D	D	D	E	E	B	B	E	A
methane	20	A	A	A	A	A	A	A	A	D	B	B	B	B	B	A
methanol	60	B	B	B	E	B	A	F	A	E	A	A	A	A	A	A
methoxy butanol	60	A	A	B	E	D	D	A	A	D	C	C	B	B	B	A
methyl acrylate	20	C	C	C	C	C	C	C	B	C	C	C	C	C	C	A
methyl bromide	20	C	C	C	C	C	D	A	A	C	C	C	C	C	C	A
methyl chloride	20	C	C	C	E	E	E	B	A	B	C	C	C	C	C	A
methyl chloride	20	C	C	C	C	C	E	A	A	C	C	C	C	C	C	A
methyl ethyl ketone	20	C	C	C	C	C	C	C	A	C	C	C	B	B	B	A
methyl isobutyl ketone	20	C	C	C	C	C	C	C	B	C	C	C	B	B	C	A
methyl methacrylate	20	C	C	C	C	C	C	C	B	C	C	C	C	C	C	A
methylamine, aqueous	20	C	C	E	E	E	E	C	B	E	B	B	A	A	A	A
milk	20	A	A	A	E	A	A	A	A	A	B	B	B	B	B	A
milk of lime	80	C	C	B	E	E	E	A	A	E	C	B	D	D	D	A
mine gas	20	A	A	A	A	A	A	A	A	D	B	B	B	B	B	A
mineral oil	100	A	A	C	A	B	A	A	A	B	C	C	C	C	C	A
mineral water	60	A	A	B	E	A	A	A	A	D	A	A	A	A	A	A
mixed acid I (sulphuric acid/nitric acid/<D%0>/water)	20	C	C	B	C	C	C	A	A	C	C	C	A	A	A	A
mixed acid II (sulphuric acid/phosphoric acid/water)	40	C	C	C	E	E	E	A	A	E	B	B	A	A	A	A
molasses	100	A	A	B	E	D	D	A	A	E	C	C	B	B	B	A
monobromobenzene	20	C	C	C	C	C	C	B	A	C	C	C	C	C	C	A
monochloroacetic acid	60	B	B	B	E	E	E	E	B	C	C	C	A	A	A	A
monochloroacetic acid ethyl ester	60	C	C	C	C	C	C	B	A	C	C	C	B	B	B	A
monochloroacetic acid methyl ester	60	C	C	C	C	C	C	B	A	C	C	C	A	A	B	A
morpholine	60	C	C	C	E	D	D	E	D	E	C	C	B	B	B	A
myristyl alcohol	20	A	A	A	A	D	D	A	A	D	A	A	A	A	A	A
naftolene ZD	20	B	B	C	D	E	D	A	A	E	C	C	C	C	C	A
naphtha	20	C	C	C	B	E	B	A	A	C	E	E	E	E	E	A
naphthalene	60	C	C	C	E	E	E	A	A	E	C	C	C	C	C	A
naphthoic acid	20	B	B	D	E	E	A	A	A	E	E	E	E	E	E	A
natural gas	20	A	A	A	A	A	A	A	A	A	B	B	B	B	B	A
natural gas	20	A	A	A	D	A	C	A	A	B	C	C	E	E	A	A
nickel acetate, aqueous	20	A	A	B	E	D	D	D	B	C	A	A	A	A	A	A
nickel chloride, aqueous	20	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
nickel sulphate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
nitric acid, concentrated	80	C	C	C	E	E	E	C	D	C	C	C	C	C	A	A
nitric acid, diluted	80	B	B	B	E	B	E	A	A	E	C	B	B	B	A	A
nitric acid, fuming	60	C	C	C	E	E	E	C	D	C	C	C	C	C	C	A
nitrobenzene	60	C	C	C	C	C	C	C	B	C	C	C	C	C	C	A
nitrogen	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
nitrogene tetraoxide	20	E	E	E	E	C	E	E	D	E	E	E	C	C	E	A
nitroglycerine	20	C	C	E	E	E	E	A	A	E	B	B	A	A	A	A
nitroglycol, aqueous	20	C	C	B	E	D	D	A	A	D	D	D	A	A	A	A
nitromethane	20	C	C	E	C	C	C	C	B	C	B	B	B	B	B	A
nitropropane	20	C	C	C	C	C	C	D	C	B	B	B	B	B	B	A
nitrous gases	20	C	C	C	C	C	C	A	A	C	C	C	A	A	A	A
n-propanol	60	B	B	B	E	A	A	B	A	C	A	A	A	A	A	A
octane	20	D	D	E	E	E	B	A	A	D	E	E	E	E	E	A
octyl alcohol	20	B	B	A	E	B	B	A	A	E	B	B	A	A	A	A
octyl cresol	20	E	E	C	C	C	C	B	B	E	C	C	C	C	C	A
oleic acid	60	A	A	B	A	B	B	A	A	E	C	C	C	C	C	A
oleum, 10%	20	C	C	C	C	C	C	A	A	C	C	C	B	B	B	A
oleyl alcohol	20	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A
olive oil	60	A	A	A	A	A	A	A	A	D	B	B	B	B	B	A
o-nitrotoluene	60	C	C	C	C	C	C	C	D	E	C	C	C	C	C	A
oxalic acid, aqueous	100	C	C	C	E	E	E	A	A	E	C	B	A	A	A	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
ozone	20	C	B	B	B	A	A	A	A	D	C	C	A	B	A	A
palm kernel fatty acid	60	A	A	A	D	D	D	A	A	D	C	C	C	C	C	A
palmitic acid	60	B	B	B	D	D	D	A	A	D	C	C	C	C	C	A
paraffin	60	A	A	A	D	D	D	A	A	D	C	C	C	C	C	A
paraffin emulsions	40	A	A	A	A	A	A	A	A	A	C	C	C	C	C	A
paraffin oil	60	A	A	A	A	A	A	A	A	A	C	C	C	C	C	A
pectin	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
pentachlorodiphenyl	60	C	C	C	E	E	E	E	D	E	C	C	C	C	C	A
pentane	20	A	A	B	D	D	D	A	A	D	C	C	C	C	C	A
peracetic acid, < 1%	40	C	C	C	C	C	C	A	A	C	C	C	A	C	C	A
peracetic acid, < 10%	40	C	C	C	C	C	C	F	A	C	C	C	B	C	C	A
perchloric acid	100	C	C	C	E	E	E	A	A	E	C	C	A	A	A	A
perchloroethylene	60	C	C	C	E	C	E	A	A	E	C	C	C	C	C	A
petrol	60	B	B	B	C	C	A	A	A	C	C	C	C	C	C	A
petrol/benzene/ethanol, 50/30/20%	20	C	C	C	C	C	B	F	A	C	C	C	C	C	C	A
petrol-benzene mixture, 50/50%	20	C	C	C	C	C	B	A	A	B	C	C	C	C	C	A
petrol-benzene mixture, 60/40%	20	C	C	C	C	C	B	A	A	B	C	C	C	C	C	A
petrol-benzene mixture, 70/30%	20	C	C	C	C	C	A	A	A	A	C	C	C	C	C	A
petrol-benzene mixture, 80/20%	20	C	C	C	C	C	A	A	A	A	C	C	C	C	C	A
petroleum	60	A	A	B	A	B	A	A	A	A	C	C	C	C	C	A
petroleum ether	60	A	B	B	A	B	A	A	A	A	C	C	C	C	C	A
phenol, aqueous, up to 90%	80	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
phenyl benzene	20	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
phenyl ethyl ether	20	C	C	C	C	C	C	B	C	C	C	C	C	C	C	A
phenyl hydrazine	60	B	B	C	E	E	E	B	A	E	C	C	C	C	C	A
phenylhydrazine chlorhydrate, aqueous	80	B	B	C	E	E	E	B	B	E	C	C	A	A	B	A
phosgene	20	E	E	E	E	E	E	D	D	E	E	E	D	E	D	A
phosphoric acid, aqueous	60	C	C	B	E	E	E	A	A	E	B	A	A	A	A	A
phosphorus oxychloride	20	C	C	E	E	E	E	D	D	E	E	D	D	E	D	A
phosphorus trichloride	20	C	C	C	E	E	E	B	B	E	A	D	A	A	A	A
photographic developer	40	B	B	B	E	D	D	A	A	E	A	A	A	A	A	A
photographic emulsions	20	A	A	A	E	D	D	A	A	E	A	A	A	A	A	A
photographic fixing baths	40	B	B	B	E	D	D	A	A	E	A	A	A	A	A	A
phthalic acid, aqueous	60	A	A	B	E	D	D	A	A	E	C	D	A	A	A	A
pickling solution (leather pickling)	20	D	D	D	E	E	E	B	B	E	E	E	B	B	B	A
picric acid	20	B	B	A	E	E	B	A	A	B	B	B	B	B	B	A
picric acid, aqueous	20	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
pine needle oil	20	B	B	C	E	E	D	A	A	D	C	C	E	C	E	A
pine needle oil	60	B	B	C	A	B	A	A	A	A	C	C	C	C	C	A
pinene	20	B	B	B	E	E	B	A	A	B	E	E	E	E	B	A
piperidine	20	E	E	E	E	E	E	E	D	E	E	E	E	E	E	A
potash, aqueous	40	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
potassium acetate, aqueous	20	A	B	B	E	D	D	A	A	B	A	A	A	A	A	A
potassium bisulphate, aqueous	40	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium borate, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium bromate, 10%	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium bromide, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium carbonate, aqueous	40	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
potassium chlorate, aqueous	60	C	C	B	E	D	D	A	A	C	B	B	A	A	A	A
potassium chlorate, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium chromate, aqueous	20	B	B	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium cyanide, aqueous	40	A	A	B	E	A	A	A	A	D	A	A	A	A	A	A
potassium cyanide, aqueous	80	B	B	B	E	A	A	A	A	C	C	C	A	A	A	A
potassium dichromate, aqueous 40%	20	B	B	B	E	D	D	A	A	E	C	B	A	A	A	A
potassium iodide, aqueous	60	A	A	B	E	D	D	A	A	C	B	A	A	A	A	A
potassium nitrate, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
potassium perchlorate, aqueous	80	C	C	B	E	D	D	A	A	E	C	C	A	A	A	A
potassium permanganate, aqueous	40	C	C	B	E	E	E	A	A	E	C	B	A	A	A	A
potassium persulphate, aqueous	60	C	C	C	E	E	E	A	A	E	C	B	A	A	A	A
potassium sulphate, aqueous	60	A	A	B	E	D	D	A	A	E	A	C	A	A	A	A
propane, liquid/gaseous	20	A	A	A	A	A	A	A	A	A	C	C	E	E	E	A
propargyl alcohol, aqueous	60	A	A	A	D	D	D	A	A	E	B	D	A	A	A	A
propionic acid, aqueous	60	A	A	B	E	E	E	A	A	E	E	D	D	D	D	A
propylene glycol	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
propylene oxide	20	C	C	E	E	E	E	E	B	E	E	E	E	E	E	A
pyridine	20	C	C	C	C	C	C	C	D	C	C	C	E	E	E	A
pyrrole	20	E	E	E	E	B	B	D	D	E	C	C	C	C	E	A
rapeseed oil	20	B	B	B	B	E	A	A	A	B	E	E	B	B	B	A
refrigerants as per DIN 8962 R 11	20	A	B	B	E	E	D	B	E	E	E	E	E	E	E	A
refrigerants as per DIN 8962 R 12	20	A	B	A	E	E	E	B	E	A	B	B	B	B	B	A
refrigerants as per DIN 8962 R 13	20	A	B	A	E	E	E	B	E	B	E	A	A	A	A	A
refrigerants as per DIN 8962 R 22	20	C	C	A	E	E	D	C	E	B	A	A	A	A	A	A
refrigerants as per DIN 8962 R 113	20	A	B	A	E	E	D	B	E	B	E	E	E	E	E	A
refrigerants as per DIN 8962 R 114	20	A	B	A	E	E	D	D	E	A	A	A	A	A	A	A
refrigerants as per DIN 8962 R 134a	20	B	B	A	E	E	D	C	C	E	E	E	A	E	E	A
sagrotan	20	B	B	B	E	A	A	A	A	C	A	A	A	A	A	A
salicylic acid	20	A	A	A	E	E	E	A	A	A	A	A	A	A	A	A
salt water	20	A	A	A	E	E	A	A	A	E	A	A	A	A	A	A
sea water	20	A	A	B	E	A	A	A	A	B	A	A	A	A	A	A
silicic acid, aqueous	60	A	A	B	E	E	E	A	A	E	A	A	A	A	A	A
silicone grease	20	A	A	A	A	C	A	A	A	A	B	A	A	A	A	A
silicone oil	20	A	A	A	A	C	A	A	A	A	B	A	A	A	A	A
silver nitrate, aqueous	100	B	B	B	E	D	D	A	A	E	E	B	A	A	A	A
silver salts, aqueous	60	B	B	B	E	A	A	A	A	E	B	B	A	A	A	A
skydrol	20	C	C	C	C	C	C	C	B	C	C	C	B	D	E	A
soap solution, aqueous	20	A	A	B	E	D	D	A	A	A	A	A	A	A	A	A
soda, aqueous	60	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
sodium benzoate, aqueous	40	A	A	B	E	D	D	A	A	D	A	A	A	A	A	A
sodium bicarbonate	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium bicarbonate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium bisulphite, aqueous	100	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium chlorate	20	C	C	C	E	D	D	A	A	E	C	C	A	A	A	A
sodium chloride	100	A	A	B	E	D	D	A	A	E	E	A	A	A	A	A
sodium hypochlorite, aqueous	20	B	B	B	E	D	D	A	A	E	C	C	A	A	A	A
sodium nitrate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium nitrite	60	B	B	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium phosphate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium silicate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium sulphate, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium sulphide	40	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
sodium sulphide	100	B	B	B	E	D	D	A	A	E	C	B	A	B	A	A
sodium thiosulphate	60	C	C	A	D	D	D	A	A	E	A	A	A	A	A	A
spermaceti	20	A	A	B	D	D	D	A	A	D	C	E	C	C	C	A
spindle oil	60	A	A	B	A	A	A	A	A	A	C	C	C	C	C	A
starch syrup	60	A	A	A	E	D	D	A	A	E	A	A	A	A	A	A
starch, aqueous	60	A	A	A	E	A	A	A	A	E	A	A	A	A	A	A
steam	130	C	C	C	E	C	C	F	C	C	C	C	A	A	B	A
steam	130	C	C	C	E	C	C	F	C	C	C	C	A	A	B	A
stearic acid	60	A	A	B	A	A	A	A	A	A	C	A	A	A	A	A
stoddard solvent	20	A	A	C	A	E	A	A	A	E	A	E	E	E	C	A
styrene	20	C	C	C	E	C	E	B	D	E	C	C	C	C	C	A
succinic acid, aqueous	60	A	A	B	E	D	D	A	A	C	A	A	A	A	A	A
sugar syrup	60	A	A	E	E	D	D	A	A	E	A	D	A	A	A	A
sulphur	60	E	E	E	E	D	D	A	A	D	E	E	A	A	A	A
sulphur chloride	20	C	C	C	E	E	A	A	A	E	E	E	E	E	B	A
sulphur dioxide, aqueous	60	C	C	C	E	E	E	A	A	E	C	B	A	A	A	A
sulphur dioxide, dry	80	C	C	C	E	D	D	A	A	E	C	B	A	A	A	A
sulphur dioxide, liquid	60	C	C	C	E	E	E	A	A	E	C	E	A	A	A	A
sulphur hexafluoride	20	A	A	A	D	A	A	A	A	D	D	A	A	A	A	A
sulphuric acid, concentrated	50	C	C	C	E	C	E	A	A	C	C	B	A	A	A	A
sulphuric acid, diluted	20	B	B	C	E	E	E	A	A	E	B	B	A	A	A	A
sulphuryl chloride	20	C	C	C	E	E	E	A	A	E	B	B	B	B	A	A
tallow	60	A	A	B	D	D	D	A	A	E	C	C	C	C	C	A
tannic acid	60	A	A	B	B	A	A	A	A	E	A	A	A	A	A	A
tannin	40	B	B	A	E	D	D	A	A	A	A	A	A	A	A	A
tanning extracts	20	A	A	B	B	A	A	A	A	E	A	A	A	A	A	A
tar	20	C	C	C	E	E	E	D	A	E	C	C	C	C	C	A
tar oil	20	C	C	C	E	E	E	D	A	E	C	C	C	C	C	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG

Medium	°C ⁽¹⁾	NBR	HNBR	CR	ACM	VMQ	FVMQ	FKM	FFKM	AU	NR	SBR	EPDM	IIR	CSM	PTFE
tartaric acid, aqueous	60	A	A	B	E	A	A	A	A	E	A	A	A	A	A	A
tetrachlorethane	60	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
tetrachlorethylene	60	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
tetraethyl lead	20	B	B	C	E	E	B	A	A	E	E	E	E	E	C	A
tetrahydrofuran	20	C	C	C	E	E	E	C	B	E	C	C	C	C	C	A
tetrahydronaphthalene (tetralin)	20	C	C	C	E	E	D	A	A	E	C	C	C	C	C	A
thionyl chloride	20	C	C	C	E	E	E	A	A	E	B	B	A	A	A	A
thiophene	60	C	C	C	E	E	E	C	D	E	C	C	C	C	C	A
tin (II) chloride, aqueous	80	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
titanium tetrachloride	20	A	A	B	B	B	B	B	A	A	A	A	A	A	A	A
toluene	20	C	C	C	C	C	C	B	A	C	C	C	C	C	C	A
town gas, benzene free	20	A	A	B	A	A	A	A	A	A	C	C	C	C	C	A
transformer oil	60	A	B	C	A	B	A	A	A	A	C	C	C	C	C	A
transmission fluid, type A	20	A	A	B	A	B	A	A	A	A	E	E	E	E	B	A
triacetin	20	B	B	B	E	E	E	E	D	E	B	C	A	A	B	A
tributoxyethyl phosphate	20	C	C	C	E	E	E	B	A	E	C	C	C	C	C	A
tributyl phosphate	60	C	C	C	E	E	E	B	A	C	C	C	C	C	C	A
trichloroacetic acid, aqueous	60	B	B	C	E	E	E	C	A	E	B	B	B	B	B	A
trichlorethyl phosphate	20	C	C	C	E	E	E	C	B	E	E	E	E	E	E	A
trichloroethylene	20	C	C	C	E	C	E	B	A	C	C	C	C	C	C	A
tricesyl phosphate	60	C	C	C	E	E	D	B	D	B	C	C	B	B	C	A
triethanolamine	20	C	C	B	E	E	E	E	B	E	C	D	B	B	B	A
triethyl aluminium	20	E	E	E	E	E	E	B	B	E	E	E	E	E	E	A
triethylborane	20	E	E	E	E	E	E	A	A	E	E	E	E	E	E	A
triglycol	20	A	A	A	E	D	D	A	A	D	A	A	A	A	A	A
trimethylol propane, aqueous	100	C	C	B	E	D	D	A	A	E	B	D	B	B	B	A
trinitrotoluene	20	E	E	B	E	E	B	B	A	E	E	E	E	E	B	A
trioctyl phosphate	60	C	C	C	E	E	D	B	A	E	C	E	B	B	B	A
trisodium phosphate	20	A	A	B	E	A	A	A	A	D	A	A	A	A	A	A
turpentine	60	B	B	C	D	E	E	A	A	C	C	C	C	C	C	A
turpentine oil	20	B	B	C	D	E	E	A	A	E	C	C	C	C	C	A
urea, aqueous	60	A	A	B	E	D	D	A	A	E	A	A	A	A	A	A
vaseline	60	A	A	A	A	B	A	A	A	D	C	C	C	C	B	A
vaseline oil	60	A	A	A	A	B	A	A	A	D	C	C	C	C	B	A
vinyl acetate	20	E	E	E	E	E	E	E	B	E	E	E	E	E	E	A
vinyl chloride, liquid	20	E	E	E	E	E	E	E	B	E	E	E	E	E	E	A
water	100	A	A	B	C	B	D	B	B	C	B	A	A	A	A	A
wax alcohol	60	A	B	B	D	D	D	A	A	D	C	E	C	C	C	A
whisky	20	A	A	A	E	A	A	A	A	A	A	A	A	A	A	A
white lye	100	B	B	B	E	E	E	C	B	E	C	A	A	A	A	A
white oil	20	A	A	B	A	A	A	A	A	D	E	E	E	E	B	A
white spirit	60	A	B	B	A	D	D	A	A	D	C	C	C	C	C	A
wine	20	A	A	A	D	A	A	A	A	A	A	A	A	A	A	A
wool grease	50	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
xylamon	20	C	C	C	C	E	E	B	A	B	C	C	C	C	C	A
xylene	20	C	C	C	C	C	C	B	A	C	C	C	C	C	C	A
yeast, aqueous	20	A	A	A	E	A	A	A	A	D	A	A	A	A	A	A
zeolite	20	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
zinc acetate	20	B	B	B	A	A	A	A	A	A	A	C	A	A	B	A

A = minor or no attack	D = no data available, probably suitable, check before use. Please consult.
B = weak to moderate attack	E = no data available, probably suitable, check before use. Please consult.
C = heavy attack to complete destruction	F = special compound necessary. Please consult.



FTL TECHNOLOGY
SEALING, BEARING AND ENGINEERED SOLUTIONS

www.ftlseals.co.uk

FTL Seals Technology Ltd., Bruntcliffe Avenue, Leeds 27 Business Park, Morley, Leeds. LS27 0TG