

TEXEL® MAGNETIC DRIVE PUMPS

Permeation/Corrosion Resistance Table

Chemicals	Chemical Formula	Density (%)	Specific Gravity	Max.Temp (C Degree)											
				Casing*Impeller				Shaft*Bearing				Gasket		O-ring	
				PFA	PVDF	ETFE	PP	Alumina Ceramic	C-PTFE	G-PTFE	Carbon	SiC	PTFE	FPM	EPDM
1 Acetaldehyde	CH3CHO	100	0.78	bp	NR	bp	NR	bp	bp	bp	---	bp	bp	bp	---
2 Acetic Acid	CH3COOH	10	1.01	150	60	---	100	bp	90	---	bp	150	NR	40	---
3		50	1.05	150	40	80	60	bp	90	90	80	bp	150	NR	40
4		80	1.06	150	NR	---	---	bp	90	90	---	bp	150	NR	NR
5 Acetone	CH3COCH3	100	1.00	bp	NR	bp	60	bp	bp	bp	bp	bp	bp	NR	bp
6 Acetonitril	CH3CN		0.98	bp	50	bp	---	bp	bp	bp	---	bp	bp	---	bp
7 Adipic Acid	HOOC(CH2)4COOH	sat.	1.36	150	90	80	80	bp	90	90	---	bp	---	80	60
8 Aluminium Chloride	AlCl3	sat.		150	90	80	80	bp	90	90	90	bp	150	90	80
9 Aluminium Hydroxide	Al(OH)3	sat.		150	90	80	100	bp	90	90	---	bp	150	80	60
10 Aluminium Sulfate	Al2(SO4)3	sat.		150	90	100	80	bp	90	90	90	bp	150	80	60
11 Ammonium Carbonate	(NH4)2CO3	sat.		150	90	80	100	bp	90	90	---	bp	150	90	80
12 Ammonium Chloride	NH4Cl	sat.		150	90	80	100	bp	90	90	90	bp	150	90	80
13 Ammonium Fluoride	NH4F	sat.		150	90	80	---	bp	90	90	90	bp	150	60	60
14 Ammonium Nitrate	NH4NO3			150	90	80	60	bp	90	90	---	bp	150	90	60
15 Aqua Vegia				150	NR	NR	NR	bp	90	90	NR	bp	150	40	NR
16 Aqueous Ammonia	NH4OH	40		150	60	80	60	bp	90	90	---	bp	150	NR	60
17 Arsenic Acid	H3AsO4/2H2O	sat.	1.10	150	80	80	80	bp	90	90	90	bp	150	60	40
18 Benzene	C6H6	100	0.89	bp	NR	bp	NR	bp	bp	20	bp	bp	NR	NR	NR
19 Benzyl Chloride	C6H5CH2Cl	100		150	80	80	---	bp	90	90	---	bp	150	---	---
20 Boric Acid	H3BO3	sat.		150	90	100	100	bp	90	90	90	bp	150	90	60
21 Bromine Water	Br2/H2O	sat.		80	80	80	NR	bp	90	90	80	bp	150	-40	NR
22 Butyl Acetate	CH3COO(CH2)3CH3	100		bp	NR	80	NR	bp	90	90	---	bp	bp	NR	NR
23 Calcium Carbonate	CaCO3	sat.		150	90	80	---	bp	90	90	---	bp	150	90	60
24 Calcium Chloride	CaCl2	sat.		150	90	80	100	bp	90	90	90	bp	150	90	60
25 Calcium Phosphate	Ca3(PO4)2	sat.		150	90	100	---	bp	90	90	---	bp	150	---	---
26 Carbon Tetrachloride	CCl4			150	60	60	NR	bp	90	90	---	bp	150	60	NR
27 Chromic Acid	CrO3	40		150	80	---	NR	⊗bp	90	90	100	bp	150	80	---
28		50		---	50	100	NR	⊗bp	90	90	NR	bp	150	50	---
29 Chloride Solution				150	90	80	NR	bp	90	90	NR	bp	150	90	NR
30 Chloroform	CHCl3	100	1.50	bp	60	NR	NR	bp	bp	bp	NR	bp	bp	NR	NR
31 Citric Acid		10	1.67	150	90	80	100	bp	90	90	90	bp	150	90	80
32 Copper Sulfate	CuSO4	sat.		150	90	100	---	bp	90	90	---	bp	150	90	80
33 Cyclohexane	C6H12	10	0.78	bp	80	40	20	bp	bp	bp	40	bp	bp	-40	NR
34 Dimethylamine	(CH3)2NH	100	0.68	bp	NR	---	60	bp	bp	bp	bp	bp	bp	NR	NR
35 Ethyl Acetate	CH3CO2C2H5	100		bp	NR	65	20	bp	bp	bp	---	bp	bp	NR	NR
36 Ethyl Alcohol	C2H5OH	100	0.80	bp	bp	bp	80	bp	bp	bp	bp	bp	bp	bp	bp
37 Ferric Chloride	FeCl2	sat.		150	90	80	---	bp	90	90	90	bp	150	90	80
38 Formaldehyde	HCOH	37	0.82	150	50	100	---	bp	90	90	---	bp	150	60	60
39 Formic Acid	HCOOH	90		bp	80	80	20	bp	90	90	NR	bp	bp	NR	80
40 Glacial Acetic Acid	CH3COOH			bp	NR	80	40	bp	90	90	---	bp	bp	NR	NR
41 Glycolic Acid	HOCH2COOH	sat.		150	NR	80	20	bp	90	90	---	bp	150	NR	NR
42 Hexane	CH3(CH2)4CH3	sat.	0.66	bp	bp	bp	20	bp	bp	bp	---	bp	bp	60	NR
43 Hydrobromic Acid	HBr	50	1.15	150	90	80	60	bp	90	90	90	bp	150	80	40
1 Hydrochloric Acid	HCl	10	1.05	bp	90	bp	40	bp	90	90	---	bp	bp	90	60
2		30	1.15	bp	80	bp	40	bp	90	90	---	bp	bp	80	---
3		36		bp	bp	bp	40	bp	bp	bp	bp	bp	bp	80	---
4 Hydrofluoric Acid	HF	30	1.10	150	90	80	★60	NR	90	90	85	bp	150	60	NR
5		70	1.17	150	40	80	★20	NR	90	90	---	bp	150	NR	NR
6 Iso-propyl Alcohol	(CH3)2CHOH	100		bp	60	45	100	bp	bp	bp	---	bp	bp	60	60
7 Magnesium Chloride	MgCl2	sat.		150	90	80	---	bp	90	90	90	bp	150	80	80
8 Magnesium Hydroxide	Mg(OH)2	sat.		150	80	80	---	bp	90	90	90	bp	150	90	80
9 Methl Alcohol	CH3OH	100	0.79	bp	bp	bp	60	bp	bp	bp	NR	bp	bp	NR	NR
10 Methlene Chloride	CH2Cl2			bp	NR	bp	---	bp	bp	bp	---	bp	bp	NR	NR
11 Methylene Dibromide	CH2Br2			bp	bp	bp	---	bp	bp	bp	---	bp	bp	20	NR
12 Nickel Sulfate	NiSO4	sat.	1.06	150	90	100	---	bp	90	90	90	bp	150	90	80
13 Nitrobenzene	C6H5NO2	sat.	1.21	150	NR	80	60	bp	90	90	---	bp	150	60	NR
14 Nitric Acid	HNO3	10	1.06	bp	80	---	20	bp	90	90	---	bp	bp	90	---
15		50	1.32	bp	50	65	NR	bp	90	90	80	bp	bp	80	NR
16		98	1.51	bp	NR	40	NR	NR	bp	bp	NR	bp	bp	NR	NR
17 Oleum	H2SO4+SO3			150	NR	NR	NR	bp	NR	NR	NR	bp	150	NR	NR
18 Phosphoric Acid	H3PO4	50	1.33	150	90	100	60	bp	90	90	80	bp	150	90	80
19		85	1.69	150	90	100	60	bp	90	90	80	bp	150	80	80
20 Phosphorus Oxychloride	POCl3			150	NR	80	20	bp	90	90	---	bp	150	NR	60
21 Potassium Fluoride	KF			150	90	70	---	bp	90	90	50	bp	150	90	NR
22 Potassium Chloride	KCl			150	90	80	100	bp	90	90	90	bp	150	90	80
23 Potassium Bromide	KBr	sat.	1.37	150	90	80	60	bp	90	90	90	bp	150	90	80
24 Potassium Hydroxide	KOH	50	1.51	150	40	80	60	bp	90	90	80	bp	150	NR	80
25 Sodium Carbonate	Na2CO3	sat.		150	90	80	100	bp	90	90	---	bp	150	90	80
26 Sodium Chloride	NaCl			150	90	80	---	bp	90	90	---	bp	150	90	80
27 Sodium Hydroxide	NaOH	10	1.11	bp	⊗50	80	100	bp	90	90	---	bp	bp	NR	---
28		50	1.53	bp	⊗40	100	100	bp	90	90	80	bp	150	NR	80
29 Sodium Hypochloride	NaClO	5		150	90	80	NR	bp	90	90	NR	bp	150	90	80
30		15		150	90	80	NR	bp	90	90	NR	bp	150	80	NR
31 Sodium Thiosulfate	Na2S2O3			150	90	80	60	bp	90	90	80	bp	150	60	NR
32 Sulfuric Acid	H2SO4	60	1.49	bp	90	100	60	bp	90	90	100	bp	bp	80	60
33		90	1.81	150	80	100	NR	bp	90	90	---	bp	150	60	---
34		98	1.83	150	⊗50	100	NR	bp	90	90	NR	bp	150	50	NR
35 Thionyl Chloride	SOCl2			150	NR	80	NR	bp	90	90	---	bp	150	NR	NR
36 Toluene	CH3C6H5	sat.	0.87	bp	NR	80	NR	bp	90	90	40	bp	bp	90	NR
37 Trichloroacetic Acid	CCl3COOH	10		---	90	---	---	bp	90	90	---	bp	150	NR	NR
38		50		100	NR	40	60	bp	90	90	---	bp	150	NR	NR
39 Trichloroethylene	C2H3Cl3	1.46		bp	60	80	NR	bp	bp	bp	NR	bp	bp	-40	NR
40 Xylene	C6H4/CH3/2	0.88		bp	90	80	NR	bp	90	90	NR	bp	bp	NR	NR

Symbol ---: No data
NR : Not Recommended
bp : Boiling Point
sat: Saturation

Note: 1. Please consult us about include solid or mixture liquid.
2. Please consult us about symbol "⊗".
3. This Anti-corrosion table shows only as materials.
4. Specific gravity columns are reference value.
5. Symbol "★" shows not recommended in case of fiberglass-reinforced PP.
6. The material in the shaft is alumina or SiC.
The material in the bearing is C-PTFE or G-PTFE or carbon or SiC.

These chemical resistance ratings are for comparison purposes only. Users should conduct their own studies to ensure chemical compatibility in their process. Magnetex Pumps, Inc. accepts no responsibility for the accuracy of this data or any consequences resulting from the use of the data