

CHEMICAL RESISTANCE GUIDE

The data tabulated below summarize the effects of a broad variety of fluids on Temax elastomers. As a general rule the resistance of Temax elastomers to fluids and chemicals increases as the polymer hardness increases. Unless otherwise noted the ratings shown in the table apply to all hardness grades.

CHART KEY

Test specimen: disc 50*3 mm and ISO I tensile bars

Test: chem. subst. ISO R462-65 and tensile ISO R527-66

WG=weight gain

*4 weeks instead of 6 weeks

F Specimen strongly swollen and cracked

TS/o = Tensile strength % original

E/o=Elongation % original

Y/o=Yield stress % original

Temax 40D

Temax 55D

Chemical	C°	Weeks	WG (%)	TS/o	E/o	WG (%)	TS/o	E/o	Y/o
Acetic Acid 100%	23	6	129	31	53	28*	55	72	61
Acetic Acid 5%	23	6	-	-	-	0.8*	95	100	92
Acetone	23	6	28	72	88	10*	75	93	71
Antar Lv CR30 grease	23	6	-	-	-	-	99	90	103
Antar Lv Cx grease	23	6	-	-	-	-	98	90	98
ASTM oil no. 1	23	6	1.6	105	98	0.6	104	96	107
ASTM oil no. 3	23	6	15	93	92	3.8	98	87	100
Bleaching lye 12%	23	6	-	-	-	0.2	100	94	103
Bleaching lye 1%	23	6	-	-	-	0.4	99	90	102
Crude oil	23	6	19	94	95	6.6	102	89	100
Cyclohexane	23	6	-	-	-	5.9	95	86	5.9
Cyclohexanone	23	6	-	-	-	20	77	76	70
Di-octylphtalate	23	6	-	-	-	0.8	105	96	102
Esso turbo oil 2380	23	6	13	99	95	2.5	104	93	104
Esso turbo oil 2389	23	6	18	92	93	3.7	100	89	100
Ethanol	23	6	-	-	-	4.5*	85	95	82
Ethylacetate	23	6	47	64	81	15*	75	95	69
Ethylene glycol	23	6	-	-	-	0.5	102	89	104
Formaldehyde	23	6	-	-	-	2.9	90	85	93
Formic acid 50%	23	6	-	-	-	11	81	82	79
Formic acid 5%	23	6	-	-	-	1.4	108	97	98
Gasoline (petrol)	23	6	-	-	-	12	84	84	72
Gasoline/methanol 85/15	23	6	65	57	75	14	96	83	96
Heavy oil (diesel)	23	6	-	-	-	7.1	93	91	87
Hydrochloric acid 10%	23	6	-	-	-	0.4	103	93	101
Hydrochloric acid 1%	23	6	-	-	-	0.5	100	90	101
Hydrogen peroxide 10%	23	6	-	-	-	1.7	F	F	F
Hydrogen peroxide 30%	23	6	-	-	-	4.1	F	F	F
Hydrogen peroxide 3%	23	6	-	-	-	0.4	103	91	101
Iso-octane	23	6	9	100	100	2.5*	94	100	86
Iso-octane/toluene 70/30	23	6	27	83	89	9.3*	79	93	79

Temax 40D

Temax 55D

Chemical	C°	Weeks	WG (%)	TS/o	E/o	WG (%)	TS/o	E/o	Y/o
Kontol K147	23	6	-	-	-	14	100	95	71
Kontol KW1936	23	6	-	-	-	4.4	118	104	84
Lockheed brake fluid	23	6	-	-	-	5.4	94	100	91
Methanol	23	6	-	-	-	4.7	110	102	96
Methylenedichloride	23	6	-	-	-	155*	F	F	F
Methylethylketone	23	6	-	-	-	12	81	76	75
Nalfloc A320 (10% in h2o)	23	6	-	-	-	0.4	118	106	100
Nalfloc V3656	23	6	-	-	-	0.4	125	105	105
Nalfloc V3804	23	6	-	-	-	F	F	F	F
Nalfloc V914	23	6	-	-	-	13	106	99	74
Nalfloc V935	23	6	-	-	-	3.7	121	105	89
Nitric acid 10%	23	6	-	-	-	2	53	3	-
Nitric acid 1%	23	6	-	-	-	0.5	92	92	99
Perchloro-ethylene	23	6	-	-	-	27	81	79	75
Petroleum	23	6	-	-	-	5.6	92	93	90
Phosphoric acid 10%	23	6	-	-	-	0.4	108	93	107
Phosphoric acid 1%	23	6	-	-	-	0.5	95	85	104
Potassiumchlorate 10%	23	6	-	-	-	0.4	92	88	101
Skydrol 500 B	23	6	37	77	83	13	89	85	89
Skydrol LD	23	6	32	78	85	11	91	89	89
Sodium hydro sulphite 10% wt	23	6	-	-	-	1.3	95	100	88
Sodium hydroxide 10%	23	6	-0.06	109	100	0.5*	100	95	88
Sodium hydroxide 50%	23	6	-0.02	112	101	0	100	100	94
Sodium sulphate 10% wt	23	6	-	-	-	0.4	108	95	103
Sulphuric acid 10%	23	6	-	-	-	0.3	97	86	104
Sulphuric acid 1%	23	6	-	-	-	0.5	95	91	103
Sulphuric acid 30%	23	6	-0.04	95	102	0	93	100	86
Sulphuric acid conc.	23	6	-	-	-	F	F	F	F
Super gasoline (petrol)	23	6	-	-	-	11	88	82	75
Teepol solution 25%	23	6	-	-	-	0.5	93	90	99
Terpentine	23	6	-	-	-	5	101	93	84
Tetrachloromethane	23	6	172	37	60	45	63	80	65
Ureum 10% wt	23	6	-	-	-	0.3	108	97	102
Xylene	23	6	86	48	70	21	60	80	61
X-tol XT48	23	6	-	-	-	13	104	92	79
Zinc chloride 10% wt	23	6	-	-	-	0.4	99	95	101
Cameron oil 530	60	6	-	-	-	1.1	93	94	109
Methanol	60	6	-	-	-	7.1	68	82	97
Ford "standard brake fluid"	80	6	-	-	-	-	93	94	109
Lockheed brake fluid	80	6	-	-	-	10	68	82	97
ASTM oil no. 1	100	6	5	86	100	1.5	107	107	137
ASTM oil no. 3	100	6	29	70	86	9.5	100	100	122
Crude oil	100	6	31	80	96	11	100	93	115
Esso turbo oil 2380	100	6	30	68	84	8.1	100	102	122
Esso turbo oil 2389	100	6	36	70	88	9.6	100	98	115
Skydrol 500 B	100	6	F	F	F	F	F	F	F
Skydrol LD	100	6	F	F	F	20	20	74	104
Tranself 80B	100	4	-	-	-	3.5	3.5	78	130
Tranself 80B	150	4	-	-	-	3.8	3.8	-	-