



TPER Waterstop Material
ASTM D-471 Method For Rubber Properties for Effects of 166 Hours of Immersion

Fluids	Temp °C	Ult. Elongation, % Retention	Tensile Strength, % Retention	Stress at 100% Modulus, % Retention	Hardness Change, Shore A Units	Weight Change %
Acids & Alkalis						
98% Sulfuric Acid	23	77	82	108	-1	2.1
10% Hydrochloric Acid	23	88	87	85	6	0.3
50% Sodium Hydroxide	23	101	107	104	-4	-0.1
10% Potassium Hydroxide	23	101	101	106	-1	0.1
Aqueous Solutions						
Water	100	84	94	106	4	2.9
10% Zinc Chloride	23	89	87	83	5	0
Sea Water	23	98	107	99	4	0.3
15% Sodium Chloride	23	93	90	94	5	0.7
18% Calcium Chloride /14% Calcium Bromide	150	71	86	110	-2	-0.1
2.5% Detergent (Tide)	23	103	103	103	0	-0.1
Organic Solvents						
Acetic Acid	23	103	102	102	-2	3.2
Acrylonitrile	23	102	104	110	-4	0.9
Aniline	23	99	94	99	-2	1.5
Bromobenzene	23	94	91	88	-3	41.9
n-Butyl Acetate	23	95	92	80	5	0.3
Cyclohexane	23	63	58	62	-6	45.3
Diethyl Ether	23	98	97	95	-7	-1.8
Dimethylformamide	23	96	105	100	6	0
Diocetyl Phthalate	23	101	97	103	-1	-0.2
1,4-Dioxane	23	98	94	95	-3	1.1
95% Ethanol	23	106	98	99	0	-1.7
Glycerol	23	102	101	103	-2	0.2
n-Hexane	23	90	92	94	-10	5.7
Methylethylketone	23	95	94	79	6	-4.8
Nitrobenzene	23	100	98	102	-2	-1.5
Piperidine	23	87	85	93	-9	12.8
1-Propanol	23	93	98	100	6	-4.3
Pyridine	23	98	105	94	6	-1.9
Trichloroethylene	23	107	105	85	-13	97.2
Turpentine	23	80	75	85	-10	34.8
Xylene	23	84	85	90	-11	24.9

Important: The technical data herein is believed to be accurate. It is offered for your consideration, investigation, and verification. All testing and test data has been prepared by independent laboratories. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE as to the accuracy or completeness of the technical data herein and the use thereof for any particular purpose.



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Petroleum Oils & Fuels						
ASTM #1 Oil	100	88	91	99	1	13.5
	125	70	78	91	-1	21.6
IRM 902 Oil	100	85	86	100	-5	20.8
	125	71	79	97	-7	29.3
IRM 903 Oil	100	76	78	91	-9	35.4
	125	60	69	84	-15	50.6
Reference Fuel A (Isooctante)	23	86	85	82	-1	13.2
Reference Fuel B (Isooctante/Toluene,70/30)	23	82	84	81	-7	24.5
Reference Fuel C (Isooctante/Toluene,50/50)	23	67	68	75	-4	29.4
Automotive Fluids						
Automatic Transmission Fluid	125	63	77	82	-11	43.4
Hydraulic Brake Fluid	23	95	102	95	5	-1.8
	100	89	94	97	6	-12.8
Lithium Grease	23	93	98	92	5	3.5
	100	88	88	92	-7	18.8
Power Steering Fluid	125	54	59	68	-12	52.2
Antifreeze, 50/50 Ethylene Glycol (Prestone®)/water	125	84	99	96	2	3.1
Industrial Fluids						
Pydraul® 312	125	79	85	90	0	17.6
Skydrol® 500 B4	125	93	104	10	4	-4.2
Sunvis® 706 Fluid	125	67	77	84	-8	39.9
Ucon® CC732	125	91	99	96	2	5.3
Ucon® 50HB5100	125	95	114	116	8	-17.6
Freon® 11	5	92	88	88	-9	32.3

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