

Chemical resistance ETFE film

Chemical Resistance			Concen. %	Temp. °C	PFA	FEP	ETFE	THV 500	PVDF
Acids	Organic	Trichloroacetic		23	n/a**	+	+	n/a**	+
		Trichloroacetic		50	n/a**	+	●	-	+
		Trichloroacetic		100	+	n/a**	n/a**	n/a**	n/a**
	Inorganic	Hydrochloric Acid	36	23	n/a**	+	+*	+	+
		Hydrochloric Acid	36	100	-	n/a**	●*	+	+
		Hydrochloric Acid	36	155	-	●	n/a**	n/a**	+
		Sulfuric Acid	96	23	n/a**	+	+*	n/a**	+
		Sulfuric Acid	96	100	+	n/a**	+*	+	-
		Sulfuric Acid	96	155	+	+	n/a**	n/a**	-
		Phosphoric Acid	konz.	100	+	n/a**	+*	+	+
		Phosphoric Acid	konz.	165	+	●	n/a**	n/a**	+
		Hydrofluoric Acid	40	100	+	+	n/a**	●	+
		Hydrofluoric Acid	40	155	+	n/a**	n/a**	n/a**	n/a**
		Hydrofluoric Acid	49	35	n/a**	+	n/a**	+	+
		Hydrofluoric Acid	49	155	+	n/a**	n/a**	n/a**	n/a**
		Nitric Acid	konz.	23	n/a**	+	+*	n/a**	●
		Nitric Acid	konz.	100	n/a**	n/a**	+	+	-
		Nitric Acid	konz.	155	●	●	n/a**	n/a**	-
		Floursulfonic Acid		100	●	n/a**	+*	n/a**	n/a**
	Chlorsulfonic Acid		100	+	n/a**	-*	n/a**	●***	
	Chromsulfonic Acid		100	+	n/a**	●*	n/a**	-***	
Alcohols		Ethylene Glycol		100	+	n/a**	n/a**	n/a**	+
		Methanol		23	+	+	+	●	+
		Methanol		50	+	n/a**	+	●	●
Amides		Dimethylacemide		50	n/a**	+	-*	-	-
		Dimethylacemide		100	+	n/a**	●*	n/a**	-
		Dimethylformamide		23	n/a**	+	n/a**	n/a**	-
		Dimethylformamide		50	n/a**	+	+*	-	-
		Dimethylformamide		100	●	n/a**	+*	n/a**	-
		n-methylpyrrolidone		23	n/a**	+	n/a**	-	-
		n-methylpyrrolidone		50	n/a**	n/a**	n/a**	-	-
	n-methylpyrrolidone		100	+	+	n/a**	-	-	
Amines		Benzyl Amine		23	n/a**	n/a**	+*	n/a**	-
		Benzyl Amine		100	n/a**	n/a**	●*	n/a**	n/a**
		n-Butyl Amine		100	n/a**	n/a**	●*	n/a**	n/a**
Bases		Ammonia	25	23	+	+	n/a**	-	-***
		Sodium Hydroxide	25	23	n/a**	+	n/a**	n/a**	-
		Sodium Hydroxide	50	23	+	+	n/a**	+	-
		Potassium Hydroxide	50	23	+	+	n/a**	+	+
		Potassium Hydroxide	50	100	+	n/a**	-*	n/a**	+
Esters		Ethyl Acetate		23	n/a**	●	●	-	●
		Ethyl Acetate		50	n/a**	n/a**	n/a**	-	-
		Ethyl Acetate		100	n/a**	n/a**	●	n/a**	-

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Ethers	Tetrahydrofuran		23	+	+	-	-	•
	Tetrahydrofuran		50	•	-	-	-	•
Halogens	Chlorine gas		23	•	n/a**	+*	+	•
	Iodine		23	+	n/a**	n/a**	n/a**	+
	Bromine		23	+	n/a**	+*	n/a**	+
Halogenated Hydrocarbons	1,1 - Dichlorethane		23	n/a**	n/a**	+*	n/a**	n/a**
	1,1 - Dichlorethane		50	n/a**	n/a**	+*	n/a**	n/a**
	1,2 - Dichlorethane		23	n/a**	n/a**	+*	n/a**	+
	1,2 - Dichlorethane		50	n/a**	n/a**	+*	n/a**	+
	1,2 - Dichlorethane		100	n/a**	n/a**	+*	n/a**	+
	1,4 - Dichlorethane		23	n/a**	n/a**	+*	n/a**	n/a**
	1,1,2 - Trichlorethane		23	n/a**	n/a**	•*	n/a**	n/a**
Hydrocarbons Aliphatic	Iso Octane		23	+	+	+	+	n/a**
	Iso Octane		50	+	n/a**	n/a**	+	n/a**
	Hexane		23	n/a**	•	n/a**	+	+
	Aromatic Toluene		23	+	+	•	•	+
Ketones	Acetone		23	+	+	+*	-	-
	Acetone		50	n/a**	n/a**	n/a**	-	-
	Acetone		100	n/a**	n/a**	•	n/a**	-
	Methyl Ethyl Ketone		23	n/a**	+	n/a**	-	-
	Methyl Ethyl Ketone		50	n/a**	n/a**	-	n/a**	-
	Methyl Ethyl Ketone		80	+	n/a**	n/a**	n/a**	-
Other Heterocycles	Benzyl Chloride		23	n/a**	+	n/a**	n/a**	+
	Pyridine		23	n/a**	+	-	n/a**	+

+ weight change < 0,5 %, change in mechanical properties < 10 %

• weight change 0,5 % - 1,0 %, change in mechanical properties 10 % - 20 %

- weight change > 1,0 %, change in mechanical properties > 20 %

* Test Conditions Specimens Tensile Test

** Information not available

*** Concentration: 100 %