GEHR Chemical Resistance

		PVC		PP		HDPE		UHMW-PE		PMMA		ABS		PC		PPO		PA 6		PA 6.6		POM		PET		PVDF		ECTFE		PSU		PPSU		PEI		PPS		PEEK	
	Conc. (%)	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	60	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140	RT	140
Acetic acid	100	+	–	+	0	+	0	+		–	–	–	–	–	–	+		–	–	–	–	0	–	–	–	+	0	+	+	+	+					+	+		
Acetone	100	–	–	+	+/0	+	+/0	+	+/0	–	–	–	–	–	–	–	–	0	0	0	0	+	0	0	–	+/0	–	+	+	–	–	–	–	–	–	+	+	+	
Ammonia	conc.	+	0	+		+	+	+	+	+		+	+	–	–	+		+/0	–	+/0	–	+	+	0	–	+	+	+	+	0				–	–	+	+	+	0
Ammonium chloride		+	+	+	+	+	+	+	+			+		+	+			+		+		+/0	0			+	+	+	+					+	+	+		+	+
Amyl alcohol		+	0	+	+	+	+	+	+	–	–	+	–					+		+		+				+	+											+	
Apple juice		+	+							+		+		0	0	+	+					+		+		+	+							+				+	+
Benzene		–	–	0	–	+/0	0/–	+	+/0	–	–	–	–	–	–	–	–	+	+	+	+	0	0	0	–	+	+	+	+	–	–	0	0			+	0	+	
Bleaching solution	12,5 Cl	+	–	0	0	0	–							–	–			–	–	–	–	–	–			0		+	+										
Boric acid	100	+	0	+	+	+	+	+	+					+				+/0	0	+/0	0	0/–	–			+	+	+	+									+	+
Brake fluid		+	+	+	+	+	+	+	+			–	–					+	+	+	+	+		+	+	+	+	+	+					+	+	+	+	+	
Butyl acetate		–	–	0	–	+	0	+		–	–	–	–	–	–			+		+		+	0	+	+	+	–	+	+	+	+					+	+	+	
Calcium chloride		+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
Carbon disulphide	100	–	–	0	–	0	–			–	–	–	–	–	–			+	–	+	–	+	+	+	0	+													
Carbon tetrachloride		–	–	–	–	0/–	–			–	–	–	–	–	–	–	–	+		+		+	0	+	0	+	+			0	–					+	0	+	
Chlorine, gas	100	0	–	–	–	0	–			0		–	–	0				–		–						+	+	+	+									+	
Chlorobenzene	100	–	–	+	0/–	0	–					–	–	–	–			+		+		0	0	–	–	+	+	+	+	–	–			+		+/0	0	+	
Chloroform		–	–	0	–	0/–	–			–	–	–	–	–	–	–	–	–	–	0	0/–	–	–	–	–	+	+			–	–			+		+/0	0	+	
Citric acid	10	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+		+		0	–	+	0	+	+	+	+	+		+		+	+			+	+
Cresol		–	–	+	+	+	+	+	+	–	–	–	–	–	–	–		–	–	–	–					+	+												
Cyclohexanone	100	–	–	+	0/–	+	+/0	+		–	–	–	–	–	–	+		+		+		+				+	0	+	0									+	0/–
Cyclohexene	100	+	0	+	–	+	+	+	+	–	–	+		–	–	+		+		+		+				+	+	+	+	+		+						+	
Diesel fuel		+		+	+	+	+	+	+	+		+		0		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+
Diethylene oxide, THF		–	–	0		+	0			–	–			–	–			+		+		+	+	+		+	+			+		+				+	+	+	
1,4 Dioxane	100	–	–	0/–		+		+				–	–	+/0	–	0		+	+	+	+	0	0	0		0	–	+	+					+		+		+	
Ethyl acetate	100	–	–	+	+/0	+	+/0	+		–	–	–	–	–	–	+		+		+		0	0	+/0	–	+	0			–	–			+		+		+	
Ethyl alcohol	96	+	0	+	+	+	+	+	+	+/0	–	–	–	+/0	0	+		+	+	+	+	+	0	+	+	+	+			+	+	+	+	+		+	+	+	+
Ethylene chloride	100	–	–	+/0		+/0				–	–	–	–	–	–			+		+				0/–	–	+	+	+	+					+				+	
Food oil		+	+	+	+	+	+	+	+			+		+		+		+		+		+	+	+	+	+	+	+	+	+				+	+	+	+	+	+
Formaldehyde, aqu	40	+	+	+	+	+	+	+	+	+		+	0	+		+		+		+		+	+			+	+	+	+			+		+				+	+
Formic acid	10	+	0	+	+	+	+	+	+	–	–	+	+	+		+	+	–	–	–	–	–	–	+	0	+	+	+	+	+	0			–	–			0	0
Frost protection agent		+	+	+	+	+	+	+	+			+		+		+		+	+	+	+	+	–	+	0	+	+	+	+	+				+		+	+	+	+
Fuel, aromatic free		+	+	+	+	+	+	+	+	+		+/0		0		–	–	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Glycerin	100	+	+	+	+	+	+	+	+	+		+	+	+/0	0	+		+	+	+	+	+	0	+	+	+	+	+	+	+				+		+	+	+	
Glycol	100	+	+	+	+	+	+	+	+	+		+		+		+		+	0	+	0	+	+	+	0	+	+	+	+	+				+				+	+
Heating oil		+	+	+	+/0	+	+	+	+	+		+	+	0		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				+				+	
Heptane	100	+	+	0	0	+	+/0	+	+/0	+		+		+		+		+		+		+	+	+	+	+	+			+				+				+	+
Hydrochloric acid	10	+	+	+	+	+	+	+	+	+		+	0/–	+		+		–	–	–	–	–	–	+	0/–	+	+	+	+	+	+	+	+	+		+	0/–	+	+
Hydrochloric acid	conc.	+	+	+	+/0	+	+	+	+	+		+/0	–	0/–	–	+		–	–	–	–	–	–	–	–	+	+	+	+	0/–				+		–		+	+/0
Hydrofluoric acid	40	+	0	+	0	+	0	+	0	–	–	0		–	–	+		–	–	–	–	–	–	–	–	+	+	+	+	0	0/–							–	–
Hydrogen peroxide	10	+	+	+	+	+	+	+	+	+		+	+	+		+		+/0	–	+/0	–	+	–	+	0	+	+	+	+	+	0							+	
Hydrogen sulphide		+	+	+	+	+	+/0	+		+		+		+		+		+		+		+				+	+	+	+									+	
2-Hydroxypropionic acid	90	+	+	+	+	+	+	+	+			+/0		+		–	–	–	–	–	–	+	–			+/0	0											+	+
Isopropyl alcohol	100	+		+	+	+	+	+	+	+/0		0	–	0		+		+	+	+	+	+	+	+	0	+	+			+/0		+				+				
Linseed oil		+	+	+	+	+	+	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+									+	
Mercurochrome		0	–	+	0	+	+/0	+		–	–	0		0		+		–	–	–	–	–				+	+	+	+									0	
Methyl alcohol	100	+	+/0	+	+	+	+	+	+	–	–	–	–	–	–	+		+		+		+	+	+	0	+	+			+		0	0	+	+	+	+	+	+
Methylene chloride	100	–	–	0/–	–	0/–	–	0/–	–	–	–	–	–	–	–			0	0	0		–	–	–	–	0	–	+	0	–	–	–	–	–		0/–		+	
Methyl ethyl ketone	100	–	–	+	0	+	–	+		–	–	–	–	–	–	–	–	+		+		0	0	+	0/–	–	–			–	–	0	0	0		+	+	+	0
Milk		+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				+				+	+
Mineral oils, aromatic free		+	+	+	+/0	+	+/0	+	+	+								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Nitric acid	10	+	+	+	+	+	+	+	+	+	+	+		0		–	–	–	–	–	–	–	–	+	0/–	+	+	+	+	+	+	+	+	–	–	+	0/–	+	+
Nitric acid	50	+	+	–	–	0	0/–	0	0/–	–	–	+/0	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	+	+					–	–	–		+	0
Nitrobenzene		–	–	+	+/0	+	+/0	+		–	–	–	–	–	–			0		0		0				+	0											+	
Oxalic acid		+	+	+	+	+	+	+	+	+		+	+	+		+		0		0		–				+	0	+	+	+								+	+
Ozone, gas	< 0,5 ppm	+	+	–	–	+/0	–	+/0	–	+		+	+	0				–	–	–	–	–	–			+	+	+	+									+	0
Paraffine oil	100	+	0	+	+	+	+	+	+	+		+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+					+				+	
Perchloroethylene		–	–	0	–	0	–	0	–	0		–	–	–	–			0	–	0	–	+	0	+/0	–	+	+			–	–					+	0	+	+
Petroleum, aromatic free	100	+	+							0		0	0/–	0	–	+						+	+	+		+	+											+	+
Petroleum ether	100	+	+	+	0	+	0	+	0	+		–	–	0				+		+		+	+															+	+
Phenol, aqu	ca. 9	0	–	+	+	+	+	+	+	–	–	0		–	–	–	–	–	–	–	–			+	+	+	+									+	0	+	
Phosphoric acid	50	+	+	+	+	+	+	+	+	–	–	+	+	+		+		–	–	–	–	–	–	+	0	+	+	+	+	+				+	+	+	+	+	+
Potassium hydroxide liquor	50	+	+	+	+	+	+	+	+	+		+	+/0	–	–	+		0		0		0		–	–	+	+							–				+	
Premium Fuel		–	–	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	0	+	+	+	+					+	+	+	+/0	+	
Propyl alcohol		+	0	+	+	+	+	+	+			+	–	+		+										+	+											+	
Pyridine		–	–	+	+	+	+/0	+				–	–	–	–			+	0	+	0					+	–	–	–							–	–	+	+
Silicone oil		+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+			+	+
Sodium carbonate, aqu		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+				+	+			+	+
Sodium chloride, aqu		+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+
Sodium hydrogen sulphite		+	+	+	+	+	+	+	+	+		+		+				+		+		–	–	+	+	+	+	+	+					+				+	+
Sodium hydroxide liquor	15	0	0	+	+	+	+	+	+	+		+	+	–	–	+		+		+		+	0	–	–	+	+			+	+					+	+	+	+
Sodium hydroxide liquor	60	0	0	+	+	+	+	+	+		–	+		–	–	+		0		0		0		–	–	+	0			+						0/–		+	+
Sodium nitrate, aqu		+	+	+	+	+	+	+	+			+	+	+	+	+	+	+		+		+	+	+		+	+	+	+									+	+
Sodium thiosulfate		+	+	+	+	+	+	+	+	+		+	+											+		+	+	+	+									+	+
Sulphuric acid	96	+	+/0	0/–	–	0	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	+		–	–			0/–	–	+/0	+/0	–	–
Tetrahydrofurane	100	–	–	0/–		0/–	–			–	–	–	–	–	–			+		+		0	0	–	–	0	–	–	–					+		+	0	+	
Toluene	100	–	–	+	–	0/–	–			–	–	–	–	–	–			+	+	+	+	+	+	+/0	–	+	+/0	+	+	–	–	0	0/–	+/0		+/0	0	+	
Transformer oil		+		+	+/0	+	+/0	+	+	+		+	+/0					+	+	+	+	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+
Trichloroethylene	100	–	–	0	–	+/0	–			–	–	–	–	–	–	–	–	+	–	+	–	0	0/–	0	–	+	+	+	+	–	–			+	+	+	+	+	+
Vinegar, standard	5-10	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+		+	+	+	0	+	+	+	+	+	+	+	+	+	+	+		+	+
Water		+	+	+	+	+	+	+	+	+	+	+	+	+	+/0	+	+	+	+	+	+	+	+	+	–	+	+			+	0	+	0	+	+/0	+	+/0	+	+
Xylene		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	+	+	+	+	0	–	+	+/0	+	+	–	–	+				+	+/0	+	

Since almost any material is subject to aging, therefore is only a limited life the expectancy.
Following factors have influence on the chemical stability: Temperature, duration, concentration, tension level of the part, mechanical strength, etc.
From the data of the list of the chemical stability the suitability of a material cannot be judged without above mentioned restrictions.
In special applications it is up to the user to determine the suitability of the plastic by running trials in real time.

+ = resistant o = restricted resistant – = non-resistant RT = Room temperature 140 = 140 °F

GEHR Technical Properties

Attribute of the used raw materials[1]	Norm	Units	PVC Type I	PVC Type II	PVC ELS	CPVC Corzan	Poly Pro euro gray	Poly Pro natural	Poly Pro 30 GF	Poly Pro 30PET-F	HDPE	UHMWPE	PMMA Acrylic	ABS	PC	PPO Noryl	PPO-30 GF Noryl 30GF	PA 6	PA 6.6 Nylon	PA 6.6 cast	PA 6.6-30GF	POM-C Acetal	POM ELS	POM ESD	POM 10PE	PET	PVDF Kynar	ECTFE Halar	PEI Ultem 1000	Poly-sulfone	PEI 30 GF Ultem 2300	PPS	PPS-40GF	PEEK	PEEK 30GF
I. Physical Properties							PP	PP	PP 30 GF	PP 30PET-F								dry / wet	dry / wet	dry / wet	dry / wet														
1. Specific gravity (ρ)	ASTM D 792	g/cm³	1.38	1.38	1.41	1.52	0.915	0.9	-	1.0	0.95	0.93	1.18	1.04	1.2	1.08	1.31	1.13	1.14	1.15	1.29	1.39	1.39	1.39	1.39	1.39	1.78	1.71	1.27	1.24	1.51	1.51	1.51	1.32	1.49
2. Water absorption	ASTM D 570	%	0.2	0.2	-	≤ 0.55	-	-	-	-	0.01	0.01	0.3	-	0.35	0.07	0.06	3 / 9.5	2.4 / 8	2.2 / 6.5	1.7 / 5.5	0.2	0.2	0.2	0.2	0.2	≤ 0.04	0.0027	0.25	0.3	0.18	0.18	0.18	0.5	0.11
3. Max. permissible service temperature (no stronger mech. stress involved)																																			
upper temperature limit	-	°F	140	140	140	185	210	210	212	212	194	194	167	158	248	221	230	185	176	221	230	230	230	230	230	230	302	302	338	320	338	338	338	480	480
lower temperature limit	-	°F	5	-40	5	5	-	-	40	-	-58	-238	-40	-	-76	-58	-58	- 40	- 22	- 40	- 4	-58	-58	-58	-58	-58	-22	-104	-	-148	-	-	-	-40	-40
II. Mechanical Properties																																			
1. Tensile strength at yield (σ_S)	ASTM D 638	psi	7300	6200	5800	7100	4785	3900	-	4495	4000	2465	10150	5400	10150	9200	-	13051 / 6525	13051 / 7975	11600 / 8700	-	9130	9130	9130	9130	9130	7250	4300	15200	10200	24500	24500	24500	13300	22800
2. Elongation at yield (ε_S)			-	-	4	-	10	11	-	19	-	≥ 20	-	30	-	-	-	4,5 / 20	≥ 40 / ≥ 100	-	-	10	10	10	10	10	9	4-5	7	-				4.9	3
3. Tensile strength at break (σ_R)	ASTM D 1708	psi	-	-	5220	-	-	-	12700	3915	-	5800	10440	-	-	-	17500	-	-	-	14500 / 10875	-	-	-	-	-	-	6500	12325	-	23200	23200	23200	-	22767
4. Elongation at break (ε_R)	ASTM D 1708	%	-	-	20	-	> 50	-	3	24	> 600	≥ 50	5	-	≥ 50	25	5	≥ 50	-	40 / 10	5 / 12	> 20	> 20	> 20	> 20	> 20	> 50	250	60	50-100	3	3	3	50	2.2
5. Impact strength (a_n)	ASTM D 256	ft-lb/in2	-	-	-	-	n.b.	-	-	-	-	n.b.	-	-	n.b.	-	-	n.b.	n.b.	n.b.	≥ 11 / -	-	-	-	-	-	3	n.b.	25	-	8.06	8.06	8.06	1.18	13.6
6. Notch impact strength (a_k)	ASTM D 256	ft-lb/in2	0.9	17	1.2	8	-	n.b.	1.9	11.8	-	n.b.	-	7.3	2.1	3.5	2.2	2.1 / n.b.	1.04 / -	≥ 0.9 / ≥ 3.48	1.39 / -	1.5	1.5	1.5	1.5	1.5	180 J/m	n.b.	1	1.2	1.87	1.87	1.87	1.55	1.8
7. Ball indentation hardn. (H_k) /Rockwell	ASTM D 785	H_k	-	111	-	R 118	65	R 80	R 105	-	-	35	185	-	120	R 119	L 108	-	-	-	-	135	135	135	135	135	-	80	M 109	M 69	M 114	M 114	M 114	M 99	M 103
8. Shore-D	ASTM D 2240		80	78	83	-	-	-	78	-	67	61	90	-	85	-	-	-	-	-	-	-	-	-	-	-	80	68	-	-	-	-	-	-	-
9. Flexural strength ($\sigma_{B\,3,5\%}$)	ASTM D 790	ksi	15	11	-	12	-	-	-	-	-	3.91	18.1	7.35	-	14.4	25	-	-	20.3 / 8.7	-	-	-	-	-	-	7.8	22	15.4	33	33	33	24.7	33.8
10. Modulus of elasticity (E_t)	ASTM D 638	ksi	410	390	435	360	188	160	992	275	176	98.6	480	250	348	370	1130	435 / 145	500 / 239	449 / 261	855 / 464	349	349	349	349	349	290	265	480	360	1350	1350	1350	530	1494
III. Thermal Properties																																			
1. Vicat softening temp. VST/B/50	ASTM D 1525	°F	-	-	-	-	176	-	-	240	-	176	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	370	442	442	442	482	572
VST/A/50	ASTM D 1525	°F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	399	-	-	-	-	-	-	-	-	-	-	426	365	-	-	-	-	-
2. Heat deflection temperature HDT/B	ASTM D 648	°F	-	-	-	-	176	190	319	-	167	149	203	-	-	-	285	320	-	-	-	309	309	309	309	309	-	179	410	357	414	414	414	464	644
HDT/A	ASTM D 648	°F	158	163	-	235	122	-	-	161	-	107	-	176	266	254	275	149	185	-	302	204	204	204	204	204	219	172	392	345	410	410	410	320	600
3. Coef. of linear therm. expansion (α)	ASTM D 696	in/in/°F x 10^{-5}	2.9	3.7	-	3.95	-	-	3	-	-	3.6	3.9	6	-	-	3.9	1.5	1.4-1.7	1.4	1.1	6.1	6.1	6.1	6.1	6.1	6.6	5.1	3.1	3.1	1.1	1.1	1.1	2.6	1.2
4. Thermal conductivity at 20 °C (λ)	ASTM C 177	BTU-in/hr-ft² x °F	-	-	-	0.95	-	-	-	-	-	2.9	-	-	1.46	-	-	-	1.95	1.6	2.08	2.15	2.15	2.15	2.15	2.15	-	1.04	1.5	1.8	-	-	-	1.7	3
IV. Electrical Properties																																			
1. Volume resistivity (ρ_D)	ASTM D 257	Ω x cm	-	-	≥ 10^6	-	-	-	≥ 10^{15}	-	-	≥ 10^{14}	≥ 10^{15}	-	≥ 10^{15}	-	≥ 10^{15}	≥ 10^{13} / ≥ 10^{10}	≥ 10^{14} / ≥ 10^{12}	≥ 10^{15} / ≥ 10^{12}	≥ 10^{14} / ≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{16}	6.7 x 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{16}	≥ 10^{13}
2. Surface resistivity (R_o)	ASTM D 257	Ω/SQ	-	-	≥ 10^6	-	-	-	-	-	-	≥ 10^{12}	≥ 10^{15}	-	≥ 10^{15}	-	≥ 10^{13}	- / ≥ 10^{10}	≥ 10^{13} / ≥ 10^{12}	≥ 10^{13} / ≥ 10^{12}	≥ 10^{13} / ≥ 10^{12}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{13}	≥ 10^{14}	≥ 10^{12}	≥ 10^{15}	≥ 10^{15}	≥ 10^{15}	≥ 10^{15}	≥ 10^{15}	≥ 10^{13}
3. Dielectric constant at 1 MHz (ε_r)	ASTM D 150	-	-	-	-	-	-	-	-	-	-	3.0	2.9	-	3	-	-	3.5 / 7	3.3 / 3.8	3.7 / -	3.6 / 3.9	3.8	3.8	3.8	3.8	3.8	7.25	2.6	3.15	3.03	3.4	3.4	3.4	3.2	3.3
4. Diel. loss factor at 1 MHz (tanδ)	ASTM D 150	-	-	-	-	-	-	-	-	-	-	0.0001	0.03	-	0.008	-	-	0.031 / 0.3	0.02 / 0.06	0.03	0.014 / 0.04	0.005	0.005	0.005	0.005	0.005	0.18	0.0134	-	0.003	0.0023	0.0023	0.0023	0.003	0.004
5. Dielectric strength	ASTM D 149	V/mil (kV/mm)	-	690 (27.2)	-	1250 (-)	-	-	5272 (40)	-	-	- (45)	- (30)	- (-)	- (-)	500 (-)	530 (-)	- (-)	667/444/ (27/18)	1235/494/ (50/20)	741/494/ (30/20)	- (40)	- (40)	- (40)	- (40)	- (40)	- (22)	385 (21)	831 (33)	425 (17)	- (35)	- (35)	- (35)	- (19)	-
6. Tracking resistance	VDE 0303	Grade	-	-	-	-	-	-	-	-	-	KB ≥ 600	CTI ≥ 600	-	CTI 225	-	CTI 325	CTI 600	CTI 600	-	CTI 475	CTI 600	CTI 600	CTI 600	CTI 600	CTI 600	CTI 300	CTI > 600	-	CTI 150	CTI 150	CTI 150	CTI 150	CTI 150	CTI 175
V. Additional Data																																			
1. Bondability			+	+	+	+	0	0	0	+	0	-	+	+	+	+	+	+	+	+	+	0	0	0	0	0	0	0	+	+	+	-	0	0	0	0
2. Physiological indifference	FDA		on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request
	NSF		on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request
3. Friction coefficient			-	-	0,6	-	-	-	-	-	-	0.25	0.55	-	-	-	-	0.38 - 0.45	0.35 - 0.42	0.36 - 0.42	-	0.35	0.35	0.35	0.35	0.35	-	0.3	-	0.4	-	-	0.34	0.42
4. Flammability	UL 94		V-0	V-0	V-0	V-0	HB	HB	HB	HB	HB	HB	HB	HB	HB	V-1	V-1	HB	HB	HB	HB	HB	HB	HB	HB	HB	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0
5. UV stabilisation			0	0	0	0	0	0	0	0	0	-	+	-	-	0	0			+	+	0	0	0	0	0	+	+	+	-	0	0	0	0	0
6. Acid resistance (delute)			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
7. Hydroxid resistance (delute)			+	+	+	+	+	+	+	0	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
8. Hydrocarbonat resistance			+	+	+	+	+	+	+	+	+	+	+	+	0	0	0	+/0	+/0	+/0	+/0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
9. CKW resistance			-	-	-	-	0	0	0	0	-	-	0	0	-	-	-	-	-	-	-	0	0	0	0	0	+	+	0	0	0	0	0	0	0
10. Aromatic resistance			0	0	0	0	-	-	-	-	0	0	-	-	-	-	-	+/0	+/0	+/0	+/0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
11. Ketone resistance			-	-	-	-	+	+	+	+	+	+	-	-	-	-	-	+	+	+	+	+	+	+	+	+	0	+	-	+	-	-	-	+	+
12. Resistance against hot water			-	-	-	-	+	+	+	-	0	0	0	0	0	+	+	+/0	+/0	+/0	+/0	+	+	+	+	+	+	+	+	+	+	+	+	+	+

1) The figures stated here are approximate values based on experience currently gathered by experts. They are determined on the basis of raw materials, so that a divergence of values on the ultimate product cannot be precluded. Any legally binding guarantee of certain properties, or any suitability for a specific application cannot be inferred from the present data.
2) Pretreatment necessary.
3) 65 (round rods 160 - 200 mm ø) 57 (round rods 220 - 300 mm ø).
4) 59 (round rods 160 - 200 mm ø) 51 (round rods 220 - 300 mm ø).
5) Physiological indifferences are valid for nature coloured materials.
6) valid for nature coloured materials. An additional UV prodection can taken over by special pigments e.g. carbon black.

n.b. = no break + = yes o = limited - = no

n.b. = no break + = yes o = limited - = no

n.b. = no break + = yes o = limited - = no