T1: Chemical resistance of cable sheaths

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All values are for +20 °C

		Cable and Lead Designation									
		ÖLFLEX® CLASSIC 100, -110, -115 CY, ÖLFLEX® SERVO 700, -700 CY, -2YSLCY, -720, -730, -730 CY, UNITRONIC® 100, -EB, -9YSLCY	ÖLFLEX® FD 90, FD 90 CY, ÖLFLEX® 140, 140 CY, ÖLFLEX® 140, 140 CY, 150, 150 QUATTRO, -191, -191 CY, ÖLFLEX® FD 891/891 CY, Tray II, ÖLFLEX® SERVO 709 CY ÖLFLEX® SERVO FD 781 CY, ÖLFLEX® CONTROL TM/TM CY, SERVO cables acc. SEW, SIEMENS FX 5008 Standard	ÖLFLEX® CLASSIC 110 SY, ÖLFLEX® CLASSIC 100 CY, ÖLFLEX® CLASSIC 110 SY, -110 CY	ÖLFLEX® CLASSIC 400 P, -400 CP, -415 CP, -440 P, -440 CP, -450 P, -500 P, -540 CP, -540 P, -550 P, ÖLFLEX® SERVO FD 750, -755, -755 CP, 760, -770, -785, -790 CP, 795 P/CP, CLASSIC 810 P, -810 CP, -855 P, -855 CP, ÖLFLEX® FD 891 P, -891 CP, ÖLFLEX® Robot 900, -F1 UNITRONIC® FD P, ÖLFLEX® CRANE PUR, UNIRONIC® LiYD11Y, UNITRONIC® FD CP, UNITRONIC® FD CP (TP), HITRONIC® POF with PUR-sheath, UNITRONIC® FD plus types, UNITRONIC® PUR SERVO cables acc. SIEMENS Standard FX7, Fx8	ÖLFLEX® CRANE, round and flat	ÖLFLEX® LIFT T, LIFT S, ÖLFLEX® CRANE 2S, ÖLFLEX® LIFT F, ÖLFLEX® SF, Single core LiFY	ÖLFLEX® HEAT 105	ÖLFLEX® HEAT 180	ÖLFLEX® HEAT 205 / 260
Inorganic chemicals	**Concentration**										
Alums	cs.	□	□	□		□	□	□	□	□
Aluminium salts	a.c.	□	□	□		□	□	□	□	□
Ammonia, aqu.	10 %	□	□	□	□	□	□	□	□	□
Ammonium acetate, aqu.	a.c.	□	□	□		□	□	□	□	□
Ammonium carbonate, aqu.	a.c.	□	□	□	■	□	□	□		□
Ammonium chloride, aqu.	a.c.	□	□	□	□	□	□	□		□
Barium salts	a.c.	□	□	□	□	□	□	□	□	□
Boric acid, aqu.		□	□	□	◪	□	□	□	□	□
Calcium chloride, aqu.	cs.	□	□	□	◪	□	□	□	□	□
Calcium nitrate, aqu.	cs.	□	□	□		□	□	□	◪	□
Chromium salts, aqu.	cs.	□	□	□	□	□	□	□		□
Potassium carbonate, aqu. (potash)		□	□	□		◪	□	□	□	□
Potassium chlorate, aqu.	cs.	□	□	□		□	□	□		□
Potassium chloride, aqu.	cs.	□	□	□	■	□	□	□	□	□
Potassium dichromate, aqu.		□	□	□	◪	□	□	□	□	□
Potassium jodide, aqu.		□	□	□		□	□	□	□	□
Potassium nitrate, aqu.	cs.	□	□							
Potassium permanganate, aqu.		◪	◪	◪	◪	□	◪	□	□	□
Potassium sulfate, aqu.		□	□	□	□	□	□	□	□	□
Copper salts, aqu.	cs.	□	□	□	□	□	□	□	□	□
Magnesium salts, aqu.	cs.	□	□	□	◪	□	□	□	□	□
Sodium bicarbonate, aqu. (soda)		□	□	□	◪	□	□	□	□	□
Sodium bisulphite, aqu.		□	□	□	□	■	□	□	□	□
Sodium chloride, aqu. (cooking salt)		□	□	□	□	□	□	□	□	□
Sodium thiosulphate, aqu. (fixing salt)		□	□	□	◪	□	□	□	□	□
Nickel salts, aqu.	cs.	□	□	□	□	□	□	□	□	□
Phorsphoric acid	50 %	□	□	□	■	□	□	□	■	□
Mercury	100 %	□	□	□	□	□	□	□	□	□
Mercury salts, aqu.	cs.	□	□	□	□	□	□	□	□	□
Nitric acid	30 %	■	■	■	■	■	■	■	■	□
Hydrochloric acid	conc.	■	■	■	■	■	■	■	■	□
Sulphur	100 %	□	□	□	□	□	□	□	■	□
Sulphur dioxide, gaseous		□	□	□		□	□	□	■	□
Carbon disulphide		■	■	■	■	■	■	■	■	□
Hydrogen sulphide		□	□	□		□	□	□	■	□
Sea water		□	□	□	□	□	□	□	□	□
Silver salts, aqu.		□	□	□	□	□	□	□	□	□
Hydrogene peroxide	3 %	□	□	□	□	□	□	□	□	□
Zinc salts, aqu.		□	□	□	■	□	□	□	◪	□
Stannous chloride		□	□	□		□	□	□	□	□
Organic chemicals										
Ethyl alcohol	100 %	■	■	■	◪	□	■	■	□	□
Formic acid	30 %	■	■	■	■	□	■	■		□
Gasoline		■	■	■	□	◪	■	■	■	□
Succinic acid, aqu.	cs.	□	□	□	□	□	□	□		□
Acetic acid	20 %	◪	◪	◪	◪	□	◪	◪	□	□
Hydraulic oil		■	■	■	◪	■	■	■		□
Isopropyl alcohol	100 %	■	■	■	◪	□	■	■	◪	□
Machine oil		◪	□	◪	□	◪	◪	◪	◪	□
Methyl alcohol	100 %	◪	◪	◪	◪	□	◪	◪	□	□
Oxalic acid, aqu.	cs.	□	□	□		◪	□	□	◪	□
Cutting oil		◪	□	◪	□	◪	◪	◪		□
Vegetable oil and fats		◪	□	◪	□	◪	◪	◪	◪	□
Tartaric acid, aqu.		□	□	□		□	□	□	□	□
Citric acid		□	□	□	◪	□	□	□	□	□

□ = no to slight reaction
◪ = slight to average reaction
■ = average to strong reaction

= good resistant
= moderate resistant
= less/not resistant

aqu. = in aqueous solution
a.c. = any concentration
cs. = cold saturated

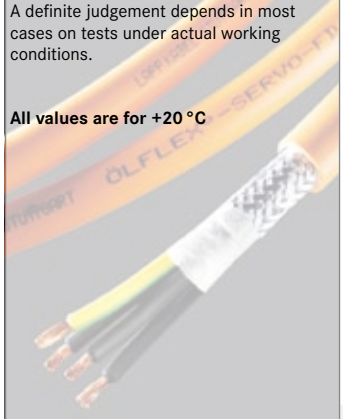
Appendix

T1 Selection Table

T1: Chemical resistance of cable sheaths

The information is given to the best of our knowledge and experience, but must be regarded as being for the guidance only. A definite judgement depends in most cases on tests under actual working conditions.

All values are for +20 °C



		Cable and Lead Designation											
		Halogen-free cables and leads UNITRONIC® H-(ST)H, NHXMH ÖLFLEX® 120 H, 120 CH, 130 H, 135 CH, 130 H BK 0.6/1 KV, 135 CH BK 0.6/1 KV, ÖLFLEX® FD 820 H	HITRONIC® LWL-cable	UNITRONIC® 100 CY, LiYCY twisted pairs, Li2YCY(TP), Li2YCY PiMF, UNITRONIC® computer cable, -LAN UNITRONIC® LiYY, -LiYCY, UNITRONIC® FD CY	ÖLFLEX® FD CLASSIC 810, -810 CY UNITRONIC® LiYCY, -LiYCY(TP), UNITRONIC® FD, -FD CY, HITRONIC® POF with PVC outer sheath	J-Y(ST)Y; JE-Y(ST)Y; J-YY; JE-YY	Coaxial cable (PE) A-2Y(L)2Y A-2YF(L)2Y, HITRONIC® with PE outer sheath	Kupfer-Erdungsseil ESUY, X00V3-D	ÖLFLEX® CRANE NSHTÖU; NSGAFÖU; H01N2-D; ÖLFLEX® CRANE VS; H05RN-F; H07RN-F, H07RN8-F	Einzeladern LiY, H05V-K, H07V-K, LiFY; Multi-Standard SC 1; Multi-Standard SC 2.1; Multi-Standard SC 2.2	H05RR-F	ÖLFLEX® ROBUST 200, -210, -215 C ÖLFLEX® FD ROBUST, -FD ROBUST C
Inorganic chemicals	**Concentration**												
Alums	cs.	□	□	□	□	□	□	□	□	□	□	□	
Aluminium salts	a.c.	◪	□	□	□	□	□	□	□	□	□	□	
Ammonia, aqu.	10 %	■	□	□	□	□	□	□		□		□	
Ammonium acetate, aqu.	a.c.		□	□	□	□	□	□	■	□	■	□	
Ammonium carbonate, aqu.	a.c.		□	□	□	□	□	□	□	□	□	□	
Ammonium chloride, aqu.	a.c.		□	□	□	□	□	□	□	□	□	□	
Barium salts	a.c.	◪	□	□	□	□	□	□	□	□	□	□	
Boric acid, aqu.		◪	□	□	□	□	□	□	□	□	□	□	
Calcium chloride, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Calcium nitrate, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Chromium salts, aqu.	cs.		□	□	□	□		□	□	□	□	■	
Potassium carbonate, aqu. (potash)			□	□	□	□	□	□	□	□	□	□	
Potassium chlorate, aqu.	cs.		□	□	□	□	□	□	◪	□	□	□	
Potassium chloride, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Potassium dichromate, aqu.			□	□	□	□	□	□	□	□	□	□	
Potassium jodide, aqu.		◪	□	□	□	□	□	□	□	□	□		
Potassium nitrate, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Potassium permanganate, aqu.			◪	◪	◪	◪	□	◪	□	◪	□	□	
Potassium sulfate, aqu.		◪	□	□	□	□	□	□	□	□	□	□	
Copper salts, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Magnesium salts, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Sodium bicarbonate, aqu. (soda)			□	□	□	□	□	□	□	□	□	□	
Sodium bisulphite, aqu.			□	□	□	□	□	□	□	□	□	□	
Sodium chloride, aqu. (cooking salt)		◪	□	□	□	□	□	□	□	□	□	□	
Sodium thiosulphate, aqu. (fixing salt)			□	□	□	□	□	□	□	□	□	□	
Nickel salts, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Phorsphoric acid	50 %		□	□	□	□	□	□	□	□	■	□	
Mercury	100 %	□	□	□	□	□	□	□	□	□	□	□	
Mercury salts, aqu.	cs.	◪	□	□	□	□	□	□	□	□	□	□	
Nitric acid	30 %	■	■	■	■	■	◪	■	■	■	■	◪	
Hydrochloric acid	conc.	■	■	■	■	■	■	■	■	■	■	◪	
Sulphur	100 %	□	□	□	□	□	□	□	□	□	■	◪	
Sulphur dioxide, gaseous			□	□	□	□	□	□	□	□	□	□	
Carbon disulphide		■	■	■	■	■	■	■	■	■	■	■	
Hydrogen sulphide			□	□	□	□	◪	□	□	□	□	■	
Sea water		◪	□	□	□	□	□	□	□	□	□	□	
Silver salts, aqu.		◪	□	□	□	□	□	□	□	□	□	□	
Hydrogene peroxide	3 %		□	□	□	□	□	□	□	□	□	■	
Zinc salts, aqu.		◪	□	□	□	□	□	□	□	□	□	□	
Stannous chloride		◪	□	□	□	□	□	□	□	□	□	□	
Organic chemicals													
Ethyl alcohol	100 %	■	■	■	■	■	□	■	□	■	□	□	
Formic acid	30 %	■	■	■	■	■	□	■	□	■	□		
Gasoline		■	■	■	■	■	■	■	◪	■	■	■	
Succinic acid, aqu.	cs.		□	□	□	□	□	□	□	□	□	□	
Acetic acid	20 %	■	◪	◪	◪	◪	□	◪	□	◪	◪	□	
Hydraulic oil		■	■	■	■	■		■	■	■	■	■	
Isopropyl alcohol	100 %		■	■	■	■	□	■	□	■	□	□	
Machine oil		■	◪	◪	◪	◪		◪	◪	◪	■	◪	
Methyl alcohol	100 %	◪	◪	◪	◪	◪	□	◪	□	◪	□	□	
Oxalic acid, aqu.	cs.	◪	□	□	□	□	□	□	◪	□	□	□	
Cutting oil		■	◪	◪	◪	◪	◪	◪	◪	◪	■	◪	
Vegetable oil and fats		■	◪	◪	◪	◪	◪	◪	◪	◪	■	◪	
Tartaric acid, aqu.		◪	□	□	□	□	□	□	□	□	□	□	
Citric acid		◪	□	□	□	□	□	□	□	□	□	□	

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