

Reaction of Synthetic Rope under Various Conditions

Material	Properties									
	Washing C*	Acids (50%) 25°C/100°C Rest%	Gasoline	Diesel & Oil	Solvents	Alkalien (Solutions)	Insulating Properties	Highest Tempera- Tures Point short Ca. °C	Range Exposure Ca. °C	Melting Point Ca. °C
Polyamid (PA) 6 (Perlon) (Nylon) 66	50-60	17/5-10	No reaction	No reaction	Formic acid & acetic acid at high temperatures	Resilient against weak solutions	Very good poor conductor	130	170 210	215 255
Polyester (PES) (Trevira, Diolen, Dacron, Terylen)	80-90	80/10	No reaction	No reaction	Phenols, cresoles, zinc choride	Resilient against solutions at 20°C; dissolves in solutions at 100°C	Very good	170	225	260
Polypropylene (PP) (Splitfiber, Polyhemp)	30	No reaction	No reaction	No reaction	Minimal reaction	Resilient against weak solutions	excellent	80	140	170
Polyethylen (PE)	30	No reaction	No reaction	No reaction	Minimal reaction	Resilient	excellent	70	120	150
Aramid (Kevlar, Twaron, Technora)	80-90	Partial good resistance	No reaction	No reaction	Minimal reaction	Partially good resilience	excellent	400	-	Carbonit e at ca. 500°C
LCP, Vectran	60	Very good resilience	No reaction	No reaction	Minimal reaction	Very good resilience	excellent	200	-	330
PBO (ZYLON)	50	Good resilience	No reaction	No reaction	Minimal reaction	Very good resilience	excellent	550	-	Carbonit e at ca. 650°C