

BASIC MATERIAL PROPERTIES

Material	Code	VDE	Temperature range (°C)	Tensile strength (N/mm ²)	Elongation (%)	Density (g/cm ³)	Volume resistance (Ω x cm)
Polyvinylchloride	PVC	Y	-30...+70	10...25	150...300	1.2...1.5	10 ¹² ...10 ¹⁵
Polyvinylchloride, heat resistant	PVC	Y	-20...+90	10...25	150...300	1.3...1.4	12 ¹² ...10 ¹⁵
Polyvinylchloride, cold resistant	PVC	Y	-40...+70	10...25	150...300	1.4...1.5	10 ¹² ...10 ¹⁵
Polyvinylchloride, flammwidrig	PVC	Y	-30...+70	10...25	150...250	1.3...1.6	10 ¹² ...10 ¹⁵
High pressure polyethylene	HDPE	2Y	-50...+70	20...30	500	0.95...0.98	10 ¹⁷
Low pressure polyethylene	LDPE	2Y	-50...+100	30	800	0.918...0.935	10 ¹⁷
Polyamide	PA	4Y	-40...+80	50...180	200...300	1.10...1.15	10 ¹⁴
Polybutylen terephthalate	PBTP	-	-60...+110	50...100	50...300	1.3	10 ¹⁶
Polytetrafluorethylene	PTFE	5Y	-190...+260	14...40	240...400	2.0...2.3	10 ¹⁸
Tetrafluorethylene-hexafluorpropylene copolymer	FEP	6Y	-100...+200	20...25	250...350	2.0...2.3	10 ¹⁸
Ethylen-tetrafluorethylen	ETFE	7Y	-100...+150	40...50	100...300	1.6...1.8	10 ¹⁶
Polypropylene	PP	9Y	-50...+90	30...50	300	0.91	10 ¹⁷
Polyurethane	PUR	11Y	-40...+100	30...45	300...600	1.15...1.20	10 ¹²
Thermoplastic polyolefin elastomer	TPE	12Y	-70...+125	3...25	280...650	0.9...1.2	10 ¹²
Silicone rubber	SI	2G	-60...+180	5...10	200...350	1.2...1.3	10 ¹⁵
Ethylene propylen rubber	EPM/EPDM	3G	-30...+125	5...20	200...450	1.3...1.6	10 ¹⁴
Ethylen vinyl acetate	EVA	4G	-30...+125	5	200	1.3...1.5	10 ¹³
Chloropren-rubber	CR	5G	-40...+100	25	450	1.4...1.7	10 ¹³
Flame retardant Polyethylene	FRPE	H	-30...+70	5...10	100...150	1.4...1.6	10 ¹³

Material	Code	Shore-hardness A.D	Resistance to weathering (t)	Fuel resistance	Oil resistance	Flammability
Polyvinylchloride	PVC	70...95	moderate	moderate	good	self-extinguishing
Polyvinylchloride, heat resistant	PVC	70...95	moderate	moderate	good	self-extinguishing
Polyvinylchloride, cold resistant	PVC	70...95	moderate	moderate	good	self-extinguishing
Polyvinylchloride, flammwidrig	PVC	80...90	moderate	moderate	good	not flammable
High pressure polyethylene	HDPE	60...62	good	poor	moderate	flammable
Low pressure polyethylene	LDPE	43...50	moderate	poor	moderate	flammable
Polyamide	PA	60...70	good	moderate	good	flammable
Polybutylen terephthalate	PBTP	80 (D)	good	good	good	flammable
Polytetrafluorethylene	PTFE	55...65	very good	very good	very good	not flammable
Tetrafluorethylene-hexafluorpropylene copolymer	FEP	55...60	very good	very good	very good	not flammable
Ethylen-tetrafluorethylen	ETFE	70...75	very good	very good	very good	not flammable
Polypropylene	PP	55...60	moderate	moderate	moderate	flammable
Polyurethane	PUR	80...100	very good	good	good	self-extinguishing
Thermoplastic polyolefin elastomer	TPE	50...90	very good	good	very good	flammable
Silicone rubber	SI	40...80	very good	poor	moderate	high ignition temp.
Ethylene propylen rubber	EPM/EPDM	65...85	good	poor	poor	flammable
Ethylen vinyl acetate	EVA	70...80	good	poor	poor	flammable
Chloropren-rubber	CR	55...70	very good	poor	good	self-extinguishing
Flame retardant Polyethylene	FRPE	45...50	good	moderate	moderate	self-extinguishing

