

ELECTRICALLY CONDUCTIVE PLASTICS

Properties of PRE-ELEC® Compounds



- Recommended
- Applicable

Polymer base	Product name	Application Special feature	Extrusion	Injection moulding	Surface resistance (Ω)	Volume resistivity (Ωcm)	Melt flow index (g / 10 min)		Specific gravity (g / cm ³)	Flex modulus (Mpa)	Hardness
								@			
PE-LD	PRE-ELEC® PE 1271	Films	●	○	<10 ⁴	70	35 1.7	190 °C / 21.6 kg 190 °C / 5 kg	1.02	-	-
PE-HD	PRE-ELEC® PE 1291	Pipes, tubes	●		<10 ³	50	6 0.7	190 °C / 21.6 kg 190 °C / 10 kg	1.04	1200	-
PE-HD	PRE-ELEC® PE 1292	Sheets, pipes	●	○	<10 ⁴	70	6 1.5	190 °C / 10 kg 190 °C / 5 kg	1.03	1100	ShD 66
PE-HD	PRE-ELEC® PE 1312	Canisters, pails, drums	●		<10 ⁴	100	10 0.6	190 °C / 21.6 kg 190 °C / 10 kg	1.03	1200	ShD 67
PE-HD	PRE-ELEC® TP 11270	Fuel systems, filler heads and necks	●	●	<10 ⁴	50	15	190 °C / 21.6 kg	1.03	1200	ShD 70
PE-HD	PRE-ELEC® PE 14708GF	Fuel systems, filler heads and necks		●	<10 ³	25	17	190 °C / 21.6 kg	1.24	4600	-
PP	PRE-ELEC® PP 1351	Boxes, crates, racks, cases, enclosures / dissipative		●	<10 ⁸	-	28 6	230 °C / 5 kg 230 °C / 2.16 kg	0.99	1400	ShD 74
PP	PRE-ELEC® PP 1370	Boxes, crates, racks, cases, enclosures		●	<10 ³	70	12 2	230 °C / 5 kg 230 °C / 2.16 kg	0.98	1200	ShD 71
PP	PRE-ELEC® PP 1375	Boxes, crates, racks, cases, enclosures / very high flow		●	<10 ⁴	80	20	230 °C / 2.16 kg	0.98	1300	ShD 65
PP	PRE-ELEC® PP 1380	Technical mouldings, high conductivity		●	<10 ³	3	1.5	230 °C / 5 kg	1.06	1900	ShD 72
PP	PRE-ELEC® PP 1384	Tape	●	○	<10 ³	4	16 1	230 °C / 5 kg 230 °C / 2.16 kg	1.06	2500	ShD 73
PP	PRE-ELEC® PP 1392	Boxes, crates, racks, cases, enclosures / high flow			<10 ⁴	60	35 7	230 °C / 5 kg 230 °C / 2.16 kg	0.98	1500	ShD 72
PP	PRE-ELEC® PP 1397	Corrugated board	●	○	<10 ⁴	60	5 1.2	230 °C / 5 kg 230 °C / 2.16 kg	0.98	1400	ShD 74
PP	PRE-ELEC® TP 14815	Cases, enclosures / V0 (UL 94, 3 mm), halogen free		●	<10 ⁴	110	1.3	230 °C / 10 kg	1.42	2000	ShD 67
PS	PRE-ELEC® PS 1328	Boxes, crates, cases		●	<10 ⁴	60	3	200 °C / 5 kg	1.1	2200	ShD 79
PS	PRE-ELEC® PS 1335	Reels, boxes, crates, cases		●	<10 ⁴	190	6	200 °C / 5 kg	1.1	2000	ShD 75
PA6	PRE-ELEC® PA 1406	Carbon fiber, technical mouldings / carbon fiber		●	<10 ⁶	-	-	-	1.14	6500	ShD 81
PA6	PRE-ELEC® PA 1408	Technical mouldings		●	<10 ⁴	700	5	275 °C / 10 kg	1.2	2000	ShD 80
PC	PRE-ELEC® PC 1431	Technical mouldings		●	<10 ⁵	-	10	300 °C / 2.16 kg	1.24	2500	ShD 85
ABS	PRE-ELEC® ABS 1410	Technical mouldings		●	<10 ⁴	350	15	220 °C / 10 kg	1.1	2000	ShD 76
PC/ABS	PRE-ELEC® PC/ABS 1420	High temperature resistance sheets and trays	●		<10 ⁴	150	13	240 °C / 21.6 kg	1.12	2700	-
PBT	PRE-ELEC® PBT 1455	Technical mouldings		●	<10 ⁴	100	14	240 °C / 10 kg	1.32	2000	ShD 84
TPU	PRE-ELEC® TPU 1512	Hoses, profiles, tapes / polyester TPU	●	○	<10 ³	10	11	190 °C / 10 kg	1.27	-	ShA 87
TPU	PRE-ELEC® TPU 16619	Hoses, profiles, tapes / polyether TPU	●	○	<10 ⁴	30	5	190 °C / 5 kg	1.21	-	ShA 88
TPU	PRE-ELEC® TP 16159	Casters, wheels / carbon fiber		●	<10 ⁵	9	33	190 °C / 10 kg	1.28	660	ShD 62
SEBS	PRE-ELEC® TPE 1502	Grommets, grips		●	<10 ³	15	4	190 °C / 10 kg	1.08	-	ShA 65

ELECTRICALLY CONDUCTIVE PLASTICS

Properties of PRE-ELEC® Concentrates

- Recommended
- Applicable

Polymer base	Product name	Application Special feature	Extrusion	Injection moulding
PE-LD	PRE-ELEC® TP 15779	Foams	●	○
PE-HD	PRE-ELEC® PE 1250	Pipes, tubes	●	○
PE-HD	PRE-ELEC® PE 1296	Canisters, pails, drums	●	○
PP	PRE-ELEC® PP 1393	Corrugated board	●	○
PP	PRE-ELEC® PP 15392	Corrugated board	●	○
PP	PRE-ELEC® PP 1381	Industrial mouldings	○	●
PP	PRE-ELEC® PP 1353	Tape, fiber	●	○
PA	PRE-ELEC® PA 1411	Technical mouldings	○	●

Carbon black concentrates are an excellent way to reduce the raw material costs.

In PRE-ELEC® concentrates, the carbon black content has been optimized to the highest possible level. In sustainable and/or cost-driven applications, regrind or recycled plastics can be used for dilution. Besides the economical advantages concentrates also allow the modification of product properties e.g. stiffness or flame retardancy.

Sign up to the [Premix Data Center](https://www.premixgroup.com/data-center) (https://www.premixgroup.com/data-center) for product specific data sheets and more information on processing electrically conductive compounds and concentrates.

Our Electrically Conductive Plastics team is at your service:

www.premixgroup.com/contact

