



TECHNICAL DATA SHEET

Witcom PE-2009/271, based on Polyethylene (PE)

thermally & electrically conductive

Properties	Test methods	Units	PE-2009/271
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Physical properties

Specific gravity	ISO 1183	g/cm ³	1,24
Water absorption at saturation, 23 °C	ISO 62	%	0,02
Humidity absorption, 23 °C/50 % r.h.	ISO 62	%	0,01
Mould shrinkage (flow direction, 3 mm)	ISO 2577	%	0,6 - 1,0

Mechanical properties

Tensile strength (max.)	ISO 527	MPa	45
Elongation at break	ISO 527	%	2 - 4
Flexural strength	ISO 178	MPa	45
Flexural modulus	ISO 178	GPa	5,5
IZOD impact strength, notched	ISO 180/1eA	kJ/m ²	2,8
IZOD impact strength, unnotched	ISO 180/1eU	kJ/m ²	8

Thermal properties

Heat distortion temperature (1,81 MPa)	ISO 75	°C	-
Relative temperature index, 3 mm, with impact	UL 746B	°C	-
Coefficient of linear thermal expansion	ISO 11359	K-1·10 ⁻⁵	-
Thermal conductivity (through plane)	ASTM E1530	W/mK	2,3

Flammability

Burning behaviour	ISO 1210	-	HB @ 3,0 mm
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Electrical properties

Surface resistivity	ASTM D257	Ω/sq	10 ² - 10 ⁴
Comparative tracking index	IEC 60112	V	-
Glow wire rating, 1,6 mm	IEC 695-2-1	°C	-

Processing conditions (injection moulding)

Drying conditions (dehumidifying drier)	: 4 Hours @ 80 °C
Maximum allowable moisture content	: 0,05 %
Melt temperature	: 180 - 240 °C
Mould temperature	: 20 - 60 °C
Screw speed	: 0,1 - 0,25 m/s
Back pressure	: 0 - 1,0 MPa
Injection pressure	: Keep to a minimum
Injection speed	: Fast ram speed
Hold pressure	: Keep to a minimum

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