Technical Datasheet

PRE-ELEC® PA 1408

PA6 injection moulding compound
Electrically conductive

Applications: Technical parts
Housings, Enclosures

PRE-ELEC® PA 1408 is a conductive thermoplastic compound based on polyamide 6. Conductivity is achieved by using conductive carbon black. In addition to a low electrical resistivity it has an excellent balance of mechanical properties and is easy to injection mould. The grade can also be extruded.

Special properties	Unit	Value	Method
Volume resistivity	Ω.cm	700	PRE021
Surface resistance	Ω	2E+03	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm3	1,20	ISO 1183
Melt flow rate at 275°C	g/10 min		ISO 1133
10.0 kg		5	
Mould shrinkage	%	1,6	ISO 294-4
Vicat, Rate A	°C	220	ISO 306/A50
Vicat, Rate B	°C	190	ISO 306/B50
HDT, 0.45 MPa	°C	155	ISO 75/Bf
HDT, 1.80 MPa	°C	65	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	50	ISO 527
Tensile strain at break	%	25	ISO 527
Flexural modulus	MPa	2000	ISO 178
Impact strength, Charpy	kJ/m2		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		70	
Unnotched, -20°C		NB	
Notched, -20°C		60	
Hardness, Shore D	-	80	ISO 868

MFR is measured from granulates
Test specimen: injection moulded rod; Thickness: 10 mm, width: 4 mm

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This product is REACH and RoHS compliant

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www.premixgroup.com/data-center-main

Processing instructions

		Unit	Processing range		
Extrusion					
	Cylinder temperature profile	°C	220	-	260
	Die temperature profile	°C	230	-	260
	Tool/Roll temperature	°C	-	-	-
Injection moulding					
	Material temperature	°C	220	-	280
	Mould temperature	°C	60	-	80
	Injection pressure	Bar	600	-	800
	Injection speed		moderate		

Notes

Drying of the product is recommended for 2-4 hours at 80°C prior to use.

Processing conditions as with filled PA6. The material is hygroscopic and too high moisture content may lead to surface quality problems and unstable processing, thus proper drying is highly recommended. These parameters are for guidance only. The process parameters should always be optimized for the used equipment. The instructions of the equipment manufacturer should be followed. Caution should be taken when handling molten material as it is extremely hot and may cause severe burns.

Storage

Product-specific details are mentioned in the notes above. The general minimum shelf life for Premix's product is 3 years with the following conditions: 1) original package is unopened, 2) the storage area and conditions provide protection from direct sunlight and significant changes in storage temperature, 3) the product is pre-dried accordingly before use.

Contact our Sales and Customer Service teams for more information
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