

PREPERM® PPE260

$\epsilon_r = 2.6$, $\tan \delta = 0.0009$
 Optimized for extrusion
 Suitable for CNC

Applications: Antennas
 Antenna parts

PREPERM® PPE260 is a special compound based on Premix proprietary PPE technology. It offers a stable dielectric constant over wide frequency and temperature ranges with low losses. PPE260 is optimized for extrusion and it can be CNC machined.

Dielectric properties

		Standard	Value	Tolerance
Dielectric constant, ϵ_r	2.4 GHz	SPDR	2.60	±0.05
Loss tangent, $\tan \delta$	2.4 GHz	SPDR	0.0009	-

Processing parameters

		Unit	Value
Injection moulding			
	Material temperature	°C	270 – 310
	Mould temperature	°C	80 – 120
	Injection pressure		Moderate
	Injection speed		Moderate
Extrusion			
	Material temperature	°C	260 – 300
	Die temperature	°C	260 – 300
	Tool/roll temperature	°C	60 – 150

These temperatures can be used for guidance purposes. Processing temperature is also dependent on the equipment used. The instructions of the equipment manufacturer should be followed.

Pre-drying in a dehumidifying drier is recommended e.g. 2 - 4 hours at 110 - 130°C. If a dehumidified drier is not available, we recommend increasing the drying temperature to 120 – 140 °C and prolonging the drying time to 3 to 6 hours. If moisture level is too high, it can be seen in surface quality, but it does not cause polymer degradation.

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Material properties

	Unit	Standard	Value
Physical properties			
Specific gravity	g/cm ³		1.07
Water absorption	%	ISO 62	0.2
Melt Flow Index	g/10 min	ISO 1133 (300 °C / 5.0 kg)	15
Color			White
Thermal Properties			
Deflection Temperature		ISO 75-2:2013	
	0.45 MPa	°C Method B	176
	1.8 MPa	°C Method A	160
Mold shrinkage	%	ISO 294-4	0.7
Mechanical Properties			
Tensile strength	MPa	ISO 527-2:2012	40
Yield strength	MPa	ISO 527-2:2012	75
Elongation at break	%	ISO 527-2:2012	25
Elongation at yield	%	ISO 527-2:2012	6
Flexural modulus	MPa	ISO 178:2010	2700
Impact strength, unnotched Izod		ISO 180:2000	
	23 °C/73 °F	kJ/m ²	NB
	-20 °C/-4 °F	kJ/m ²	NB
	-78 °C/-108 °F	kJ/m ²	NB
Impact strength, notched Izod		ISO 180:2000	
	23 °C/73 °F	kJ/m ²	8
	-20 °C/-4 °F	kJ/m ²	8
	-78 °C/-108 °F	kJ/m ²	7
Flammability		UL94	
	1.5 mm		-
	3.0 mm		V1

PREPERM® is RoHS compliant.

The information in this data sheet represents typical values obtained by us and should not be regarded as a specification.

We condition that the product will be inspected and qualified by the customer for his process to meet the specific requirements set by application, processing equipment and end product.

Packaging

PREPERM® is supplied in granule form, packed in 20 kg polyethylene valve bags (1000 kg) on one-way pallet. The product can be stored up to one year in normal storing conditions.

Contact our sales and R&D teams:

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