

## Premix Thermoplastics PRESEAL® TPE 5010

Category : Polymer , Thermoplastic , Elastomer , TPE

### Material Notes:

PRESEAL TPE 5010 is a thermoplastic elastomer based highly conductive compound intended primarily for EMI gasket applications. It may also find interesting uses as conductors or in grounding applications. Conductivity is achieved with nickel-coated graphite. PRESEAL TPE 5010 can be injection-molded like an ordinary thermoplastic elastomer thus giving great new possibilities in gasket design and mass production. It has adhesion to selected thermoplastics and metal contacts are also arranged. It is also used in co-injection molding e.g. molding the gasket directly in the phone casing. Recyclability is an added value. The material is silicone free. Typical applications include soft EMI gaskets in mobile phones, mobile phone base stations and other wireless communication environment as well as military application. \* Tension test bar according to ISO 527 Information provided by Premix Thermoplastics Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Premix-Thermoplastics-PRESEAL-TPE-5010.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PRESEAL-TPE-5010.php)

Physical Properties	Metric	English	Comments
Density	2.34 g/cc	0.0845 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	55	55	ISO 7619
Tensile Strength, Ultimate	0.500 MPa	72.5 psi	ISO 37*
Tensile Strength, Yield	0.600 MPa	87.0 psi	ISO 37*
Elongation at Break	200 %	200 %	ISO 37*
Elongation at Yield	25 %	25 %	ISO 37*
Modulus of Elasticity	0.00350 GPa	0.508 ksi	ISO 178
Compressive Modulus	0.0330 GPa	4.79 ksi	At 10% Compression; ISO 7743
	0.0340 GPa	4.93 ksi	At 15% Compression; ISO 7743
	0.0360 GPa	5.22 ksi	At 18% Compression; ISO 7743
	0.0390 GPa	5.66 ksi	At 20% Compression; ISO 7743
Tear Strength	4.10 kN/m	23.4 pli	ISO 34-C
Compression Set	40 %	40 %	At 85°C, 24 hours; ISO 815:1991

Electrical Properties	Metric	English	Comments
Volume Resistivity	<= 0.030 ohm-cm	<= 0.030 ohm-cm	ISO Mil-G-835388
Shielding Effectiveness	90 dB	90 dB	ISO ARP1705, 20-700 MHz

Electrical Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Middle Barrel Temperature	200 °C	392 °F	Zones 1-5
Nozzle Temperature	200 °C	392 °F	
Injection Velocity	25.0 mm/sec	0.984 in/sec	
Drying Temperature	60.0 °C @Time 10800 sec	140 °F @Time 3.00 hour	Pre-drying; If stored for longer than 1 year
Moisture Content	<= 0.040 %	<= 0.040 %	When Produced
Hold Pressure	0.000 MPa	0.000 psi	
Back Pressure	0.300 MPa	43.5 psi	
Shelf Life	12.0 Month	12.0 Month	Normal Storing Conditions

Descriptive Properties	Value	Comments
Appearance	Granule	
Color	Grey	
Cooling Time, sec	25	
Holding Time, sec	5	
Injection Time, sec	0.7	
Plasticizing Speed, %	25-80	Max 480 rev/min

## Contact Songhan Plastic Technology Co.,Ltd.

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