

PRE-ELEC® PP 17147

PP injection moulding compound
 Very high electrical conductivity
 High HDT

Applications: EMI Shielding
 Enclosures

PRE-ELEC® PP 17147 is a proprietary formulation developed for applications requiring EMI-shielding properties. It is easy to injection mould and has excellent properties combined with low mould shrinkage and much higher HDT-values than typical polypropylenes. The material's color is black.

| Special properties | Unit | Value | Method |
|--------------------|------|-------|---------------|
| Volume resistivity | Ω.cm | 0.25 | PRE021 |
| Surface resistance | Ω | 6E+02 | IEC 61340-2-3 |
| Flammability (*) | - | HB | RD524 |

| General properties | Unit | Value | Method |
|-------------------------|----------|-------|-------------|
| Specific gravity | g/cm3 | 1.1 | ISO 1183 |
| Melt flow rate at 230°C | g/10 min | | ISO 1133 |
| 10.0 kg | | 5.3 | |
| Mould shrinkage | % | 0.05 | ISO 294-4 |
| Vicat, Rate A | °C | 155 | ISO 306/A50 |
| Vicat, Rate B | °C | 95 | ISO 306/B50 |
| HDT, 0.45 MPa | °C | 149 | ISO 75/Bf |
| HDT, 1.80 MPa | °C | 115 | ISO 75/Af |

| Mechanical properties | Unit | Value | Method |
|-------------------------|-------|-------|---------|
| Tensile strength | MPa | 40 | ISO 527 |
| Tensile strain at break | % | 1.6 | ISO 527 |
| Flexural modulus | MPa | 9000 | ISO 178 |
| Impact strength, Charpy | kJ/m2 | | ISO 179 |
| Unnotched, +23°C | | 9 | |
| Notched, +23°C | | 6 | |
| Unnotched, -20°C | | 9 | |
| Notched, -20°C | | 4 | |
| Hardness, Shore D | - | 75 | ISO 868 |

MFR is measured from granulates

Test specimen: injection moulded rod; Thickness: 10 mm, width: 4 mm

*) In-house testing

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This product is REACH and RoHS compliant

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Processing instructions

| | Unit | Processing range | |
|----------------------|------|------------------|----------|
| Injection moulding | | | |
| Material temperature | °C | 240 | - 260 |
| Mould temperature | °C | 40 | - 70 |
| Injection pressure | Bar | 600 | - 1000 |
| Injection speed | | | moderate |

Notes

Drying of the product is recommended for 2-4 hours at 90°C prior to use.

Processing conditions as with filled PP. 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.

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