# China PPS MI-hGR50

Polyphenylene Sulfide

Sichuan Deyang Chemical Co., Ltd

## Message:

PPS/MI-hGR50 is toughing PPS compound, which is filled with glass fiber and special toughening ingredients based on the PPS resin. Good mechanical properties, high temperature resistance, solvent resistance, excellent electrical insulation properties, high intensity, low water absorption, low mold shrinkage, good dimensional stability, and radiation resistance. Without the defect of PPS's inherent brittleness, it can be used in more fields to replace other plastic materials.
Owing to its high performance, it can be used to make appliances where high intensity, high-temperature, electrical insulation and toughness are both required. Such as: rotproof valves and valve circles, outer shells of precise electric appliance; thick wall panels, slide blocks, panels of braking system magnetic valves, gears, thermocouple and piston rings etc.

| General Information | | | |
|---|---|---|---|
| Filler / Reinforcement | Glass fiber reinforced material | | |
| Additive | Impact modifier | | |
| Features | Good dimensional stability<br>Impact modification<br>Insulation<br>Anti-gamma radiation<br>Solvent resistance<br>Heat resistance, high | | |
| Uses | Electrical appliances<br>Valve/valve components<br>Parts under the hood of a car | | |
| Processing Method | Injection molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Density | 1.65 | g/cm³ | Internal method |
| Molding Shrinkage - Flow | 0.25 | % | Internal method |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness [1] | 106 | | Internal method |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | 130 | MPa | Internal method |
| Tensile Elongation (Break) | 1.9 | % | Internal method |
| Flexural Modulus | 14700 | MPa | Internal method |
| Flexural Strength | 207 | MPa | Internal method |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | 18 | kJ/m² | Internal method |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 263 | °C | Internal method |

| | | | |
|---|---|---|---|
| Melting Temperature | 280 | °C | Internal method |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 2.7E+14 | ohms | Internal method |
| Volume Resistivity | 3.1E+16 | ohms·cm | Internal method |
| Dielectric Strength | 18 | kV/mm | Internal method |
| Dielectric Constant (1 MHz) | 4.00 | | Internal method |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | V-0 | | Internal method |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 110 - 140 | °C | |
| Drying Time | 3.0 - 5.0 | hr | |
| Rear Temperature | 270 - 290 | °C | |
| Middle Temperature | 300 - 320 | °C | |
| Front Temperature | 300 - 320 | °C | |
| Nozzle Temperature | 290 - 320 | °C | |
| Processing (Melt) Temp | 120 - 180 | °C | |
| Mold Temperature | 100 - 150 | °C | |
| Injection Pressure | 50.0 - 100 | MPa | |
| Back Pressure | 0.100 - 1.00 | MPa | |
| Screw Speed | 40 - 100 | rpm | |
| **Injection instructions** | | | |
| Processing time: 2 to 16hr | | | |
| **NOTE** | | | |
| 1. | HR | | |



## Recommended distributors for this material

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