# China PPS hb

Polyphenylene Sulfide

Sichuan Deyang Chemical Co., Ltd

## Message:

PPS-hb is high rigidity crystalline polymer that offers high-temperature resistance, innoxious, flame resistance, radiation resistance, solvent resistance, electrical insulation, arc resistance, low water absorption, low mold shrinkage, good dimensional stability and radiation resistance. It's brittle. Therefore, it needs to be "cured" by some modifier.
Owing to its high performance, it's widely used in medical, electronic/electric industry. Such as: rotproof sealed appliances, plugs, and contactors. It can be "cured" by different modifiers to make different PPS compounds.

| General Information | |
|---|---|
| Features | Good dimensional stability |
| | Rigidity, high |
| | Crystallization |
| | Insulation |
| | Anti-arc |
| | Anti-gamma radiation |
| | Solvent resistance |
| | Heat resistance, high |
| | Low shrinkage |
| | Non-toxic |
| | Low or no water absorption |
| | Flame retardancy |
| Uses | Plug |
| | Electrical/Electronic Applications |
| | Home appliance components |
| | Medical/nursing supplies |
| Processing Method | Extrusion |
| | Compression molding |
| | Injection molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Melt Mass-Flow Rate (MFR) [1] (315°C/5.0 kg) | 190 | g/10 min | Internal method |
| Water Absorption (Saturation) | 0.22 | % | Internal method |
| Molecular weight-Weight Average [2] | 48000 | | |
| Ash Content | 0.27 | % | Internal method |
| Impact Strength | 3.00 | $kJ/m^2$ | Internal method |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | 50.0 | MPa | Internal method |

| | | | |
|---|---|---|---|
| Flexural Modulus | 3000 | MPa | Internal method |
| Flexural Strength | 100 | MPa | Internal method |
| Thermal | Nominal Value | Unit | Test Method |
| Melting Temperature | 280 | °C | Internal method |
| Flammability | Nominal Value | | Test Method |
| Flame Rating | V-0 | | Internal method |
| Additional Information | | | |
| Compression Molding Parameters:<br>Temperature: 340 to 370°C<br>Time: 10 to 15 min<br>Pressure: 7 to 10 MPa<br>Heat Time: 2 to 3 hr | | | |
| Injection | Nominal Value | Unit | |
| Drying Temperature | 100 - 105 | °C | |
| Drying Time | 3.0 | hr | |
| Rear Temperature | 220 - 260 | °C | |
| Middle Temperature | 290 - 310 | °C | |
| Front Temperature | 300 - 320 | °C | |
| Nozzle Temperature | 290 - 300 | °C | |
| Processing (Melt) Temp | 160 - 180 | °C | |
| Mold Temperature | 60.0 - 80.0 | °C | |
| Injection Pressure | 60.0 - 70.0 | MPa | |
| Injection Rate | Moderate | | |
| Injection instructions | | | |
| Processing time: 4 to 8hr | | | |
| Extrusion | Nominal Value | Unit | |
| Drying Temperature | 100 - 105 | °C | |
| Drying Time | 3.0 | hr | |
| Cylinder Zone 1 Temp. | 160 - 200 | °C | |
| Cylinder Zone 2 Temp. | 260 - 290 | °C | |
| Cylinder Zone 3 Temp. | 280 - 300 | °C | |
| Adapter Temperature | 265 - 275 | °C | |
| Extrusion instructions | | | |
| Degree of vacuum: 0.09 Mpa | | | |
| NOTE | | | |
| 1. | 2.095 mm | | |
| 2. | Gel Chromatography | | |



Recommended distributors for this material

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