

Hanwha Total PP FB51

Polypropylene

HANWHA TOTAL PETROCHEMICALS Co., Ltd.

Message:

FB51 uses base resins with superior impact resistance, resulting in exceptionally high impact strength. In particular, FB51 features superior flowability offering excellent processability, high flame retardancy. This compound PP is widely used in electric and electronic component housings.

| General Information | | | |
|--|------------------------------------|-------------------|-------------|
| UL YellowCard | E140331-222908 | | |
| Features | Good dimensional stability | | |
| | Rigidity, high | | |
| | High strength | | |
| | Impact resistance, high | | |
| | Workability, good | | |
| | High liquidity | | |
| | Thermal stability, good | | |
| | Flame retardancy | | |
| Uses | Electrical/Electronic Applications | | |
| | Electrical components | | |
| | Shell | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 0.930 | g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 8.0 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (2.00 mm) | 1.5 - 1.9 | % | ASTM D955 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 90 | | ASTM D785 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength ¹ (Yield) | 29.4 | MPa | ASTM D638 |
| Tensile Elongation ² (Break) | 200 | % | ASTM D638 |
| Flexural Modulus ³ | 1470 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (23°C) | 69 | J/m | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (0.45 MPa, Unannealed) | 120 | °C | ASTM D648 |
| Flammability | Nominal Value | | Test Method |

| | | |
|-----------------------------|---------------|-------|
| Flame Rating (1.59 mm) | V-2 | UL 94 |
| Additional Information | | |
| UL746B: 120 °C | | |
| Injection | Nominal Value | Unit |
| Rear Temperature | 170 - 180 | °C |
| Middle Temperature | 180 - 200 | °C |
| Front Temperature | 180 - 200 | °C |
| Nozzle Temperature | 190 - 210 | °C |
| Mold Temperature | 40.0 - 70.0 | °C |
| Injection Pressure | 39.2 - 78.5 | MPa |
| Back Pressure | 0.490 - 1.96 | MPa |
| Injection instructions | | |
| Injection Speed: 50 to 80 % | | |
| NOTE | | |
| 1. | 50 mm/min | |
| 2. | 50 mm/min | |
| 3. | 5.0 mm/min | |

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