

Technical Data Sheet

RONFALIN[®] PS 5214

General Purpose Polystyrene
Engineering Plastics

Product Description

High impact Polystyrene for injection moulding applications. (Former name: POLYMAN PS MI)

General

Processing Method • Injection Molding

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|---------------------------|------------------------|----------------------|
| Density | 1.04 g/cm ³ | 1.04 g/cm ³ | ISO 1183/A |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 15 g/10 min | 15 g/10 min | ISO 1133 |
| Molding Shrinkage | 0.40 to 0.70 % | 0.40 to 0.70 % | ISO 294-4 |
| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tensile Modulus | 334000 psi | 2300 MPa | ISO 527-2/1A/1 |
| Tensile Stress | | | ISO 527-2/1A/50 |
| Yield | 4640 psi | 32.0 MPa | |
| Break | 3630 psi | 25.0 MPa | |
| Tensile Strain | | | ISO 527-2/1A/50 |
| Yield | 2.0 % | 2.0 % | |
| Break | 30 % | 30 % | |
| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Charpy Notched Impact Strength (73°F (23°C)) | 2.9 ft·lb/in ² | 6.0 kJ/m ² | ISO 179/1eA |
| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Heat Deflection Temperature | | | |
| 66 psi (0.45 MPa), Unannealed | 171 °F | 77.0 °C | ISO 75-2/B |
| 264 psi (1.8 MPa), Unannealed | 151 °F | 66.0 °C | ISO 75-2/A |
| Vicat Softening Temperature | | | |
| -- | 192 °F | 89.0 °C | ISO 306/A50 |
| -- | 180 °F | 82.0 °C | ISO 306/B50 |
| Electrical | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Surface Resistivity | > 1.0E+15 ohms | > 1.0E+15 ohms | IEC 60093 |
| Volume Resistivity | > 1.0E+13 ohms·m | > 1.0E+13 ohms·m | IEC 62631-3-1 |
| Comparative Tracking Index | 600 V | 600 V | IEC 60112 |
| Flammability | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Burning Rate | | | |
| 0.0787 in (2.00 mm) | < 3.9 in/min | < 100 mm/min | ISO 3795 |
| 0.0787 in (2.00 mm) | < 3.9 in/min | < 100 mm/min | FMVSS 302 |
| Flammability Classification | | | IEC 60695-11-10, -20 |
| 0.06 in (1.5 mm) | HB | HB | |
| 0.12 in (3.0 mm) | HB | HB | |

Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

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| Injection | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature | 176 °F | 80 °C |
| Drying Time | 2.0 to 4.0 hr | 2.0 to 4.0 hr |
| Processing (Melt) Temp | 428 to 500 °F | 220 to 260 °C |
| Mold Temperature | 122 to 194 °F | 50 to 90 °C |

Notes

These are typical property values not to be construed as specification limits.