

# RONFALIN® PS 5112

General Purpose Polystyrene  
Engineering Plastics

## Product Description

High impact Polystyrene for injection moulding application. (Former name: POLYMAN PS 604)

## General

Processing Method • Injection Molding

| Physical                                     | Nominal Value (English)   | Nominal Value (SI)     | Test Method          |
|----------------------------------------------|---------------------------|------------------------|----------------------|
| Density                                      | 1.04 g/cm <sup>3</sup>    | 1.04 g/cm <sup>3</sup> | ISO 1183/A           |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)     | 11 g/10 min               | 11 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                              | 290000 psi                | 2000 MPa               | ISO 527-2/1A/1       |
| Tensile Stress (Yield)                       | 2900 psi                  | 20.0 MPa               | ISO 527-2/1A/50      |
| Tensile Strain (Yield)                       | 1.5 %                     | 1.5 %                  | ISO 527-2/1A/50      |
| Flexural Stress <sup>1</sup>                 | 5510 psi                  | 38.0 MPa               | ISO 178              |
| Impact                                       | Nominal Value (English)   | Nominal Value (SI)     | Test Method          |
| Charpy Notched Impact Strength (73°F (23°C)) | 4.3 ft·lb/in <sup>2</sup> | 9.0 kJ/m <sup>2</sup>  | ISO 179/1eA          |
| Notched Izod Impact Strength (73°F (23°C))   | 4.8 ft·lb/in <sup>2</sup> | 10 kJ/m <sup>2</sup>   | ISO 180/A            |
| Thermal                                      | Nominal Value (English)   | Nominal Value (SI)     | Test Method          |
| Vicat Softening Temperature                  |                           |                        |                      |
| --                                           | 207 °F                    | 97.0 °C                | ISO 306/A50          |
| --                                           | 190 °F                    | 88.0 °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

<sup>1</sup> 0.079 in/min (2.0 mm/min)

Notes

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

