**JPGPPSHH**

High heat resistance, high tensile strength and high stiffness, general purpose polystyrene

**Typical Material Properties**

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| General |  |  |
| Material Status | Commercial: Active |  |
| Availability | North America |  |
| Forms | Pellets |  |
| Processing Method | Extrusion Blow Molding | Injection Blow Molding |
|  | Thermoforming | Film Extrusion |
|  | Injection Molding | Foam Extrusion |
|  | Sheet Extrusion |  |

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| Physical Properties | Nominal Values | Test Method |
| Specific Gravity | 1.04 | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 1.5 g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 3.0E-3 to 7.0E-3 in/in | ASTM D955 |

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| Mechanical Properties |  |  |
| Tensile Modulus | 424000 psi | ASTM D638 |
| Tensile Strength |  | ASTM D638 |
| Yield | 7700 psi |  |
| Break | 7700 psi |  |
| Tensile Elongation (Break) | 2.0 % | ASTM D638 |
| Flexural Modulus | 457000 psi | ASTM D790 |
| Flexural Strength | 15300 psi | ASTM D790 |

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| Impact |  |  |
| Notched Izod Impact (73°F, 0.125 in) | 0.40 ft·lb/in | ASTM D256 |
| Gardner Impact (73°F) | 1.00 in·lb | ASTM D3029 |

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| Thermal |  |  |
| Deflection Temperature Under Load |  | ASTM D648 |
| 66 psi, Unannealed, 0.125 in | 205 °F |  |
| 264 psi, Unannealed | 183 °F |  |
| Vicat Softening Temperature | 227 °F | ASTM D1525 |
| CLTE - Flow (-40 to 180°F) | 5.0E-5 in/in/°F | ASTM D696 |

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| Flammability |  |  |
| Flame Rating (0.0580 in, ALL) | HB | UL 94 |

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| Optical |  |  |
| Refractive Index | 1.590 | ASTM D542 |
| Transmittance | 90.0 % | ASTM D1003 |
| Haze | 1.0 % | ASTM D1003 |

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| Injection |  |  |
| Rear Temperature | 350 to 450 °F |  |
| Front Temperature | 375 to 500 °F |  |
| Mold Temperature | 70.0 to 150 °F |  |
| Injection Pressure | 5000 to 40000 psi |  |
| Back Pressure | 10.0 to 500 psi |  |
| Clamp Tonnage | 2.0 to 4.0 tons/in² |  |