

Technical Data Sheet

Polyman ABS HH NAT



Acrylonitrile Butadiene Styrene

Product Description

Heat resistant ABS grade

Processing Method Injection Molding

Resin ID ABS

| Typical Properties | Nominal Value | Units | Test Method |
|---|---------------|-------------------------|----------------|
| Physical | | | |
| Melt Volume Flow Rate, (220 °C/10.0 kg) | 4.0 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 1.05 | g/cm ³ | ISO 1183 |
| Mechanical | | | |
| Tensile Stress at Yield, (Type 1A, 50 mm/min) | 49.0 | MPa | ISO 527-2 |
| Tensile Strain at Yield, (Type 1A, 50 mm/min) | 2.7 | % | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 1900 | MPa | ISO 527-1 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 12 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise, Notch A) | 7.0 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise) | 65 | kJ/m ² | ISO 179 |
| Hardness | | | |
| Ball Indentation Hardness, (H 358/30) | 94.0 | MPa | ISO 2039-1 |
| Thermal | | | |
| Vicat Softening Temperature, (B (50N), 50 °C/h) | 107 | °C | ISO 306 |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 107 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 103 | °C | ISO 75-2/A |
| Electrical | | | |
| Volume Resistivity | >1.0E+13 | ohm*m | IEC 62631-3-1 |
| Surface Resistivity | >1.0E+15 | ohm | IEC 60093 |
| Flammable | | | |
| Burning Rate | | | |
| (2.00 mm) | 43 | mm/min | FMVSS 302 |
| (2.00 mm) | 43 | mm/min | ISO 3795 |
| Glow Wire Flammability Index | | | |
| (1.5 mm) | 650 | °C | IEC 60695-2-12 |
| (3.0 mm) | 650 | °C | IEC 60695-2-12 |

UL Information

Flammability Classification

| | | |
|----------|----|--------------------------|
| (1.5 mm) | HB | IEC 60695-11-10, - 20 |
| (3.0 mm) | HB | IEC 60695-11-10, - 20 |

| Injection Parameters | Nominal Value | Units |
|-----------------------------|----------------------|--------------|
| Drying Time | 2.0 to 4.0 | hr |
| Drying Temperature | 80 | °C |
| Processing (Melt) Temp | 230 to 260 | °C |
| Mold Temperature | 40 to 80 | °C |
