

## Technical Data Sheet

### *Polyman* RW IFP ABS HH 3110 PWD NAT

Acrylonitrile Butadiene Styrene

#### Product Description

high heat resistant ABS grade

**Processing Method** Injection Molding

**Resin ID** ABS

| Typical Properties                                                  | Nominal Value | Units                   | Test Method          |
|---------------------------------------------------------------------|---------------|-------------------------|----------------------|
| <b>Physical</b>                                                     |               |                         |                      |
| Melt Volume Flow Rate, (220 °C/10.0 kg)                             | 7.0           | cm <sup>3</sup> /10 min | ISO 1133             |
| Density, (Method A)                                                 | 1.05          | g/cm <sup>3</sup>       | ISO 1183             |
| <b>Mechanical</b>                                                   |               |                         |                      |
| Tensile Stress at Yield, (Type 1A, 50 mm/min)                       | 53.0          | MPa                     | ISO 527-2            |
| Tensile Strain at Yield, (Type 1A, 50 mm/min)                       | 2.8           | %                       | ISO 527-2            |
| Tensile Modulus, (1 mm/min, Type 1A)                                | 1800          | MPa                     | ISO 527-1            |
| <b>Impact</b>                                                       |               |                         |                      |
| Charpy Impact Strength - Notched                                    |               |                         |                      |
| (23 °C, Type 1, Edgewise, Notch A)                                  | 6.0           | kJ/m <sup>2</sup>       | ISO 179              |
| (-30 °C, Type 1, Edgewise, Notch A)                                 | 2.0           | kJ/m <sup>2</sup>       | ISO 179              |
| Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise)       | 50            | kJ/m <sup>2</sup>       | ISO 179              |
| <b>Hardness</b>                                                     |               |                         |                      |
| Ball Indentation Hardness, (H 358/30)                               | 96.0          | MPa                     | ISO 2039-1           |
| <b>Thermal</b>                                                      |               |                         |                      |
| Vicat Softening Temperature, (B (50N), 50 °C/h)                     | 108           | °C                      | ISO 306              |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 110           | °C                      | ISO 75-2/B           |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 105           | °C                      | ISO 75-2/A           |
| <b>Electrical</b>                                                   |               |                         |                      |
| Volume Resistivity                                                  | >1.0E+13      | ohm*m                   | IEC 62631-3-1        |
| Comparative Tracking Index (CTI)                                    | 600           | V                       | IEC 60112            |
| Surface Resistivity                                                 | >1.0E+15      | ohm                     | IEC 60093            |
| <b>Flammable</b>                                                    |               |                         |                      |
| Burning Rate                                                        |               |                         |                      |
| (2.00 mm)                                                           | 38            | mm/min                  | ISO 3795             |
| (2.00 mm)                                                           | 38            | mm/min                  | FMVSS 302            |
| Glow Wire Flammability Index, (3.0 mm)                              | 650           | °C                      | IEC 60695-2-12       |
| <b>UL Information</b>                                               |               |                         |                      |
| Flammability Classification                                         |               |                         |                      |
| (1.5 mm)                                                            | HB            |                         | IEC 60695-11-10, -20 |
| (3.0 mm)                                                            | HB            |                         | IEC 60695-11-10, -20 |