

## Technical Data Sheet

### *Polyman* ABS M/MI A R9010 WHI88505



Acrylonitrile Butadiene Styrene

#### Product Description

Medium impact standard ABS grade, antistatic

|                   |                          |
|-------------------|--------------------------|
| Processing Method | Injection Molding        |
| Attribute         | Medium Impact Resistance |
| Additive          | Antistatic               |
| Resin ID          | ABS                      |

| Typical Properties                                                  | Nominal Value | Units                   | Test Method |
|---------------------------------------------------------------------|---------------|-------------------------|-------------|
| <b>Physical</b>                                                     |               |                         |             |
| Melt Volume Flow Rate, (220 °C/10.0 kg)                             | 25            | cm <sup>3</sup> /10 min | ISO 1133    |
| Density, (Method A)                                                 | 1.06          | g/cm <sup>3</sup>       | ISO 1183    |
| <b>Mechanical</b>                                                   |               |                         |             |
| Tensile Stress at Yield, (Type 1A, 50 mm/min)                       | 50.0          | MPa                     | ISO 527-2   |
| Tensile Strain at Yield, (Type 1A, 50 mm/min)                       | 3.0           | %                       | ISO 527-2   |
| Tensile Modulus, (1 mm/min, Type 1A)                                | 2600          | MPa                     | ISO 527-1   |
| <b>Impact</b>                                                       |               |                         |             |
| Charpy Impact Strength - Notched                                    |               |                         |             |
| (23 °C, Type 1, Edgewise, Notch A)                                  | 15            | kJ/m <sup>2</sup>       | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)                                 | 7.0           | kJ/m <sup>2</sup>       | ISO 179     |
| Charpy Impact Strength - Unnotched                                  |               |                         |             |
| (23 °C, Type 1, Edgewise)                                           | 91            | kJ/m <sup>2</sup>       | ISO 179     |
| (-30 °C, Type 1, Edgewise)                                          | 58            | kJ/m <sup>2</sup>       | ISO 179     |
| <b>Hardness</b>                                                     |               |                         |             |
| Ball Indentation Hardness, (H 358/30)                               | 120           | MPa                     | ISO 2039-1  |
| <b>Thermal</b>                                                      |               |                         |             |
| Vicat Softening Temperature                                         |               |                         |             |
| (B (50N), 50 °C/h)                                                  | 97.0          | °C                      | ISO 306     |
| (A (10N), 50 °C/h)                                                  | 103           | °C                      | ISO 306     |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 88.0          | °C                      | ISO 75-2/B  |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 77.0          | °C                      | ISO 75-2/A  |
| <b>Flammable</b>                                                    |               |                         |             |
| Burning Rate                                                        |               |                         |             |
| (2.00 mm)                                                           | <100          | mm/min                  | ISO 3795    |
| (2.00 mm)                                                           | <100          | mm/min                  | FMVSS 302   |

|                                |        |    |                      |
|--------------------------------|--------|----|----------------------|
| Glow Wire Flammability Index   |        |    |                      |
| (1.5 mm)                       | 675    | °C | IEC 60695-2-12       |
| (3.0 mm)                       | 675    | °C | IEC 60695-2-12       |
| Glow Wire Ignition Temperature |        |    |                      |
| (1.5 mm)                       | 700    | °C | IEC 60695-2-13       |
| (3.0 mm)                       | 700    | °C | IEC 60695-2-13       |
| <b>UL Information</b>          |        |    |                      |
| Flammability Classification    |        |    |                      |
| (1.5 mm)                       | HB     |    | IEC 60695-11-10, -20 |
| (3.0 mm)                       | HB     |    | IEC 60695-11-10, -20 |
| UL File Number                 | E86615 |    |                      |