

## Technical Data Sheet

### Polyman ABS LP 500 RCP BLK



Acrylonitrile Butadiene Styrene

#### Product Description

Unfilled ABS formulated on mechanical recycled sourcing. The product is available in black color, pellet form. Sustainability: According with the requirements of Standard ISO 14021:2016, Polyman LP 500 contains 95% of recycled material that is fully based on post-consumer waste. Recycled content according to DIN SPEC 91446:2021-12: R95 Data Quality Level according to DIN SPEC 91446:2021-12: DQL4

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

| Typical Properties                                                   | Nominal Value  | Units                   | Test Method   |
|----------------------------------------------------------------------|----------------|-------------------------|---------------|
| <b>Physical</b>                                                      |                |                         |               |
| Melt Volume Flow Rate, (220 °C/10.0 kg)                              | 27             | cm <sup>3</sup> /10 min | ISO 1133      |
| Density, (Method A)                                                  | 1.06           | g/cm <sup>3</sup>       | ISO 1183      |
| Apparent (Bulk) Density                                              | 0.65           | g/cm <sup>3</sup>       | ISO 60        |
| <b>Mechanical</b>                                                    |                |                         |               |
| Tensile Stress at Yield, (Type 1A, 50 mm/min)                        | 42.0           | MPa                     | ISO 527-2     |
| Tensile Strain at Yield, (Type 1A, 50 mm/min)                        | 2.5            | %                       | ISO 527-2     |
| Tensile Modulus, (1 mm/min, Type 1A)                                 | 2500           | MPa                     | ISO 527-1     |
| <b>Impact</b>                                                        |                |                         |               |
| Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A) | 10             | kJ/m <sup>2</sup>       | ISO 179       |
| Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise)        | 36             | kJ/m <sup>2</sup>       | ISO 179       |
| <b>Thermal</b>                                                       |                |                         |               |
| Vicat Softening Temperature, (B (50N), 50 °C/h)                      | 95.0           | °C                      | ISO 306       |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)  | 85.0           | °C                      | ISO 75-2/B    |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)  | 74.0           | °C                      | ISO 75-2/A    |
| <b>Electrical</b>                                                    |                |                         |               |
| Volume Resistivity                                                   | 10000000000000 | ohm*m                   | IEC 62631-3-1 |
| Surface Resistivity                                                  | >1.0E+15       | ohm                     | IEC 60093     |
| <b>Flammable</b>                                                     |                |                         |               |
| Burning Rate                                                         |                |                         |               |
| (2.00 mm)                                                            | <100           | mm/min                  | ISO 3795      |
| (2.00 mm)                                                            | <100           | mm/min                  | FMVSS 302     |
| <b>UL Information</b>                                                |                |                         |               |

Flammability Classification

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

| Injection Parameters   | Nominal<br>Value | Units |
|------------------------|------------------|-------|
| Drying Time            | 2.0 to 4.0       | hr    |
| Drying Temperature     | 80               | °C    |
| Processing (Melt) Temp | 230 to 250       | °C    |
| Mold Temperature       | 40 to 80         | °C    |