

# Polyman (ABS) M/AQ schwarz LE

Acrylonitrile Butadiene Styrene

LyondellBasell Industries

Engineering Plastics

## Product Description

Increased impact modified and heat resistant ABS for automotive applications with low emission

## General

|                               |                           |                   |                 |
|-------------------------------|---------------------------|-------------------|-----------------|
| Additive                      | • Impact Modifier         |                   |                 |
| Features                      | • High Heat Resistance    | • Impact Modified | • Low Emissions |
| Uses                          | • Automotive Applications |                   |                 |
| Processing Method             | • Injection Molding       |                   |                 |
| Part Marking Code (ISO 11469) | • >ABS<                   |                   |                 |

| Physical                                    | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
|---------------------------------------------|----------------------------|---------------------------|----------------------|
| Density                                     | 1.04 g/cm <sup>3</sup>     | 1.04 g/cm <sup>3</sup>    | ISO 1183/A           |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 Kg) | 13 cm <sup>3</sup> /10min  | 13 cm <sup>3</sup> /10min | ISO 1133             |
| Water Absorption                            |                            |                           | ISO 62               |
| Equilibrium, 73°F (23°C), 50% Rh            | 1.2 %                      | 1.2 %                     |                      |
| Mechanical                                  | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
| Tensile Modulus                             | 334000 psi                 | 2300 MPa                  | ISO 527-1/1A/1       |
| Tensile Stress (Yield)                      | 6530 psi                   | 45.0 MPa                  | ISO 527-2/1A/50      |
| Tensile Strain (Yield)                      | 2.8 %                      | 2.8 %                     | ISO 527-2/1A/50      |
| Impact                                      | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
| Charpy Notched Impact Strength              |                            |                           | ISO 179/1eA          |
| -22°F (-30°C)                               | 3.3 ft·lb/in <sup>2</sup>  | 7.0 kJ/m <sup>2</sup>     |                      |
| 73°F (23°C)                                 | 9.0 ft·lb/in <sup>2</sup>  | 19 kJ/m <sup>2</sup>      |                      |
| Charpy Unnotched Impact Strength            |                            |                           | ISO 179/1eU          |
| 73°F (23°C)                                 | No Break                   | No Break                  |                      |
| Notched Izod Impact (Area) (73°F (23°C))    | 10.5 ft·lb/in <sup>2</sup> | 22.0 kJ/m <sup>2</sup>    | ASTM D256            |
| Hardness                                    | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
| Ball Indentation Hardness (H 358/30)        | 13800 psi                  | 95.0 MPa                  | ISO 2039-1           |
| Thermal                                     | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
| Deflection Temperature Under Load           |                            |                           |                      |
| 66 Psi (0.45 Mpa), Unannealed               | 216 °F                     | 102 °C                    | ISO 75-2/Bf          |
| 264 Psi (1.8 Mpa), Unannealed               | 208 °F                     | 98.0 °C                   | ISO 75-2/Af          |
| Vicat Softening Temperature                 |                            |                           |                      |
| --                                          | 210 °F                     | 99.0 °C                   | ISO 306/B50          |
| --                                          | 237 °F                     | 114 °C                    | ISO 306/A120         |
| Electrical                                  | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
| Surface Resistivity                         | > 1.0E+15 ohms             | > 1.0E+15 ohms            | IEC 60093            |
| Volume Resistivity                          | > 1.0E+13 ohms·m           | > 1.0E+13 ohms·m          | IEC 62631-3-1        |
| Flammability                                | Nominal Value (English)    | Nominal Value (SI)        | Test Method          |
| Burning Rate                                |                            |                           |                      |
| 0.0787 In (2.00 Mm)                         | < 3.9 in/min               | < 100 mm/min              | ISO 3795             |
| 0.0787 In (2.00 Mm)                         | < 3.9 in/min               | < 100 mm/min              | FMVSS 302            |
| Flammability Classification                 |                            |                           | IEC 60695-11-10, -20 |
| 0.06 In (1.5 Mm)                            | HB                         | HB                        |                      |

