

# Polyman (ABS) M/MI 40 K1836

Acrylonitrile Butadiene Styrene

LyondellBasell Industries

Engineering Plastics

## Product Description

High flow and medium impact compound

## General

|                     |                     |
|---------------------|---------------------|
| Processing Method   | • Injection Molding |
| Resin ID (ISO 1043) | • ABS               |

| Physical                                    | Nominal Value (English)   | Nominal Value (SI)        | Test Method          |
|---------------------------------------------|---------------------------|---------------------------|----------------------|
| Density                                     | 1.05 g/cm <sup>3</sup>    | 1.05 g/cm <sup>3</sup>    | ISO 1183/A           |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 Kg) | 40 cm <sup>3</sup> /10min | 40 cm <sup>3</sup> /10min | ISO 1133             |
| Mechanical                                  | Nominal Value (English)   | Nominal Value (SI)        | Test Method          |
| Tensile Modulus                             | 363000 psi                | 2500 MPa                  | ISO 527-1/1A/1       |
| Tensile Stress (Yield)                      | 5950 psi                  | 41.0 MPa                  | ISO 527-2/1A/50      |
| Tensile Strain (Yield)                      | 2.2 %                     | 2.2 %                     | 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)                               | 4.3 ft·lb/in <sup>2</sup> | 9.0 kJ/m <sup>2</sup>     |                      |
| 73°F (23°C)                                 | 7.1 ft·lb/in <sup>2</sup> | 15 kJ/m <sup>2</sup>      |                      |
| Charpy Unnotched Impact Strength            |                           |                           | ISO 179/1eU          |
| -22°F (-30°C)                               | 32 ft·lb/in <sup>2</sup>  | 67 kJ/m <sup>2</sup>      |                      |
| 73°F (23°C)                                 | 40 ft·lb/in <sup>2</sup>  | 85 kJ/m <sup>2</sup>      |                      |
| Hardness                                    | Nominal Value (English)   | Nominal Value (SI)        | Test Method          |
| Ball Indentation Hardness (H 358/30)        | 16000 psi                 | 110 MPa                   | ISO 2039-1           |
| Thermal                                     | Nominal Value (English)   | Nominal Value (SI)        | Test Method          |
| Vicat Softening Temperature                 | 203 °F                    | 95.0 °C                   | ISO 306/B50          |
| 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        |
| Comparative Tracking Index (Solution A)     | 600 V                     | 600 V                     | IEC 60112            |
| 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                        |                      |
| 0.12 In (3.0 Mm)                            | HB                        | HB                        |                      |

## Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications



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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 °F                  | 80 °C              |
| Drying Time            | 2.0 to 4.0 hr           | 2.0 to 4.0 hr      |
| Processing (Melt) Temp | 446 to 482 °F           | 230 to 250 °C      |
| Mold Temperature       | 104 to 176 °F           | 40 to 80 °C        |

Notes

These are typical property values not to be construed as specification limits.

