

Technical Data Sheet

## Polyman (ABS) K1836

Acrylonitrile Butadiene Styrene  
LyondellBasell Industries  
Engineering Plastics

### Product Description

Easy flow medium impact ABS grade

### General

|                               |                     |                            |
|-------------------------------|---------------------|----------------------------|
| Features                      | • Good Flow         | • Medium Impact Resistance |
| Processing Method             | • Injection Molding |                            |
| Part Marking Code (ISO 11469) | • >ABS<             |                            |

| Physical                                    | Nominal Value (English)   | Nominal Value (SI)        | Test Method |
|---------------------------------------------|---------------------------|---------------------------|-------------|
| Density                                     | 1.10 g/cm <sup>3</sup>    | 1.10 g/cm <sup>3</sup>    | ISO 1183/A  |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 Kg) | 35 cm <sup>3</sup> /10min | 35 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) | 6090 psi                | 42.0 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 (73°F (23°C))    | 7.1 ft·lb/in <sup>2</sup> | 15 kJ/m <sup>2</sup> | ISO 179/1eA |
| Charpy Unnotched Impact Strength<br>73°F (23°C) | No Break                  | No Break             | ISO 179/1eU |

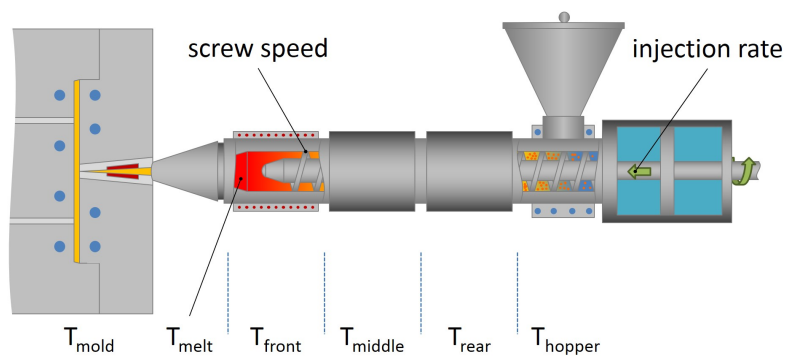
| Thermal                                                            | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--------------------------------------------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load<br>264 Psi (1.8 Mpa), Unannealed | 171 °F                  | 77.0 °C            | ISO 75-2/Af |
| Vicat Softening Temperature                                        | 203 °F                  | 95.0 °C            | ISO 306/B50 |

| Flammability                        | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------------|-------------------------|--------------------|-------------|
| Burning Rate<br>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   |

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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       | 86 to 176 °F            | 30 to 80 °C        |

### Notes

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