

# Exxtral™ Performance Polyolefin BMU139

## Polypropylene, Compounded (TPO)

### Product Description

A specialty thermoplastic polyolefin resin characterized by a good stiffness/toughness balance for painted automotive exterior applications such as bumper fascia.

### General

|                   |                                |                             |                                     |
|-------------------|--------------------------------|-----------------------------|-------------------------------------|
| Features          | ▪ Balanced Stiffness/Toughness | ▪ Ductile                   | ▪ Low Temperature Impact Resistance |
| Uses              | ▪ Automotive Bumper            | ▪ Automotive Exterior Parts | ▪ Automotive Exterior Trim          |
| Appearance        | ▪ Black                        |                             |                                     |
| Form(s)           | ▪ Pellets                      |                             |                                     |
| Processing Method | ▪ Injection Molding            |                             |                                     |

| Physical                                    | Typical Value (English)   | Typical Value (SI)        | Test Based On |
|---------------------------------------------|---------------------------|---------------------------|---------------|
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)   | 13 g/10 min               | 13 g/10 min               | ISO 1133      |
| Melt Volume-Flow Rate (MVR) (230°C/2.16 kg) | 17 cm <sup>3</sup> /10min | 17 cm <sup>3</sup> /10min | ISO 1133      |
| Density                                     | 0.960 g/cm <sup>3</sup>   | 0.960 g/cm <sup>3</sup>   | ISO 1183      |

| Mechanical                             | Typical Value (English) | Typical Value (SI) | Test Based On |
|----------------------------------------|-------------------------|--------------------|---------------|
| Tensile Stress at Yield                | 2470 psi                | 17.0 MPa           | ISO 527-2/50  |
| Tensile Strain at Yield                | 4.0 %                   | 4.0 %              | ISO 527-2/50  |
| Tensile Modulus - Secant (73°F (23°C)) | 189000 psi              | 1300 MPa           | ISO 527-2     |
| Flexural Modulus                       | 191000 psi              | 1320 MPa           | ISO 178       |

| Impact                         | Typical Value (English)   | Typical Value (SI)    | Test Based On |
|--------------------------------|---------------------------|-----------------------|---------------|
| Charpy Notched Impact Strength |                           |                       | ISO 179       |
| -22°F (-30°C), Complete Break  | 3.3 ft·lb/in <sup>2</sup> | 6.9 kJ/m <sup>2</sup> |               |
| -4°F (-20°C), Complete Break   | 3.8 ft·lb/in <sup>2</sup> | 8.0 kJ/m <sup>2</sup> |               |
| 32°F (0°C), Complete Break     | 8.6 ft·lb/in <sup>2</sup> | 18 kJ/m <sup>2</sup>  |               |

| Thermal                                | Typical Value (English) | Typical Value (SI) | Test Based On |
|----------------------------------------|-------------------------|--------------------|---------------|
| Heat Deflection Temperature (1.80 MPa) | 120 °F                  | 49.0 °C            | ISO 75-2/A    |

