



**TotalEnergies**

TotalEnergies Petrochemicals & Refining USA, Inc.  
Polymers Americas

# Lumicene® Polypropylene M6823MZ

Technical Data Sheet  
Metallocene Polypropylene – Random Copolymer  
Produced in the United States

## Description

**Polypropylene Lumicene® M6823MZ** is an isotactic form of copolymer polypropylene made via TotalEnergies proprietary metallocene catalyst technology.

**Applications:** Lumicene® M6823MZ is a medium molecular weight material recommended for injection molding. However, due to its unique and interesting properties, other applications may exist.

**Processing:** Lumicene® M6823MZ has a narrower molecular weight distribution than conventional polypropylene.

## Characteristics

|  | Method | Unit           | Typical Value   |
|--|--------|----------------|-----------------|
| <b>Rheological Properties</b>              |        |                |                 |
| Melt Flow                                  | D-1238 | g/10 min       | 30              |
| <b>Mechanical Properties<sup>(1)</sup></b> |        |                |                 |
| Tensile Modulus                            | D-638  | psi (MPa)      | 180,000 (1,240) |
| Elongation                                 | D-638  | %              | 12              |
| Flexural Modulus                           | D-780  | psi (MPa)      | 173,000 (1,195) |
| Izod Impact Notched @ 73 °F                | D-256A | ft.lb/in (J/m) | 0.7 (37)        |
| Haze, 0.04" plaques                        | D-1003 | %              | 8               |
| <b>Thermal Properties<sup>(1)(2)</sup></b> |        |                |                 |
| Melting Point                              | DSC    | °F (°C)        | 277 (136)       |
| Heat Deflection<br>@ 66 Psi                | D-648  | °F             | 192             |
| @ 4.64 kg/cm <sup>2</sup>                  |        | °C             | 89              |
| <b>Other Physical Properties</b>           |        |                |                 |
| Density                                    | D-1505 | g/cc           | 0.9             |

(1) Data developed under laboratory conditions and are not to be used as specification, maxima or minima.  
(2) MP determined with a DSC-2 Differential Scanning Calorimeter. Test procedure available upon request

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Polypropylene