

FORTIFY™ ELASTOMER C1070D

POLYOLEFIN ELASTOMER

DESCRIPTION

FORTIFY™ Polyolefin Elastomer (POE) C1070D is an ethylene octene copolymer produced by solution polymerization using metallocene catalyst. This product is available as free flowing pellets.

FORTIFY™ Polyolefin Elastomer (POE) C1070D is designed as a low density and high performance copolymer modifier to provide superior impact properties and flow characteristics.

TYPICAL APPLICATIONS

Impact modification in thermoplastic olefin compounds, injection molded industrial and consumer durable goods, wire and cable and footwear.

TYPICAL PROPERTY VALUES

Revision 20211208

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| POLYMER PROPERTIES | | | |
| Density | 868 | kg/m ³ | ASTM D792 |
| Melt Flow Rate (MFR) | | | |
| at 190°C and 2.16 kg | 1.0 | g/10 min | ASTM D1238 |
| at 230°C and 2.16 kg | 2.0 | g/10 min | ASTM D1238 |
| Mooney viscosity | | | |
| ML 1+4, 121 °C | 22 | MU | ASTM D1646 |
| MECHANICAL PROPERTIES | | | |
| Tensile Properties | | | |
| stress at break | 9.3 | MPa | ASTM D638 |
| elongation | 850 | % | ASTM D638 |
| 100% modulus | 2.9 | MPa | ASTM D638 |
| Durometer Hardness | | | |
| shore A (1 second) | 71 | - | ASTM D2240 |
| shore D (1 second) | 21 | - | ASTM D2240 |
| Flexural Modulus (1% Secant) | 13.2 | MPa | ASTM D790 A |
| Tear Strength (Type C) | 39.2 | kN/m | ASTM D624 |
| THERMAL PROPERTIES | | | |
| Peak Melting Temperature | 62 | °C | SABIC method |
| Glass Transition Temperature, Tg | -52 | °C | SABIC method |

STORAGE AND HANDLING

POE Polyolefin Elastomer resins (in pelletized form) should be stored in such a way that it prevents exposure to direct sunlight and/or heat, as this may lead to quality deterioration. The storage location should also be dry, dust free and the ambient temperature should not exceed 30°C. Further avoid temperatures above 50°C and below 10°C. Please mind the temperature conditions when using the low density grades <0.875 g/cm³, especially when the shipment or storage temperature would approach the softening and melting temperature of the POE resin. Outer package wrap should not be removed from the pallets until the products are ready to be used. Stacking of pallets is not recommended due to dimensional instability and material blocking risk. Grades with D suffix are being treated with anti-caking dust agent to reduce blocking behaviour. It is advisable to process Polyolefin Elastomers resins within 6 months after delivery, this because also excessive aging can lead to a deterioration in quality.



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