

Supreme™ 051

Polyolefin Plastomer

Introduction

Supreme™ 051, Polyolefin Plastomer (POP), is an **ethylene-octene copolymer** produced via Nexlene™ technology. Supreme™ 051 performs well in a wide range of various food & non-food packaging films with excellent sealing property and impact strength.

Typical Performance:

- Excellent low seal initiation temperature and hot tack strength
- Superior impact strength and transparency

Compiles with:

- US. FDA 21 CFR 177.1520
- EU. No 10/2011

Additives:

- Antiblock: No
- Slip: No

Properties

| | | Typical Values | Unit | Test Method |
|-------------------------|-----------------------------|----------------|--------------------|------------------------|
| Resin Properties | Density | 0.905 | g/cm ³ | ASTM D792 |
| | Melt index (2.16 kg @190°C) | 0.8 | g/10min | ASTM D1238 |
| | Melting temperature | 102 | °C | SK Method |
| | Vicat softening temperature | 88 | °C | ASTM D1525 |
| Film Properties | Film thickness - tested | 40 | µm | ASTM D374 |
| | Dart impact strength | >1000 | g | ASTM D1709A |
| | Haze | 5 | % | ASTM D1003 |
| | Seal initiation temperature | 88 | °C | SK Method ¹ |
| | Elmendorf tear strength | MD 11 | g/µm | ASTM D1922 |
| | | TD 17 | g/µm | ASTM D1922 |
| | Tensile strength at break | MD 490 | kg/cm ² | ASTM D882 |
| | | TD 520 | kg/cm ² | ASTM D882 |

Technical Information

| | | | | |
|---------------------|----|-----|--------------------|-----------|
| Elongation at break | MD | 530 | % | ASTM D882 |
| | TD | 600 | % | ASTM D882 |
| Secant modulus (1%) | MD | 660 | kg/cm ² | ASTM D882 |
| | TD | 730 | kg/cm ² | ASTM D882 |

| | | | | |
|--------------------------------|--------------------------------|--|--|--|
| Extrusion Condition | • Screw size: 35 mm | | | |
| | • Die diameter: 100 mm | | | |
| | • Die gap: 1 mm | | | |
| | • Blow-up ratio: 2.1 | | | |
| | • Melt temperature: 160-180 °C | | | |

¹ Temperature at which 0.4 kg/25.4 mm heat seal strength is achieved

Notes

These are **typical values** and are **not be construed as specifications**. The physical properties are highly dependent on the manufacturing conditions. So customers should confirm performances by their own tests.

For additional sales, order and technical assistance

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