

Smart™ 151

Introduction

Smart™ 151, metallocene LLDPE, is an **ethylene-octene copolymer** produced via Nexlene™ technology. Smart™ 151 performs well in a wide range of various food & non-food packaging films with excellent sealing property, impact strength, and processibility.

Typical Performance:

- Excellent low seal initiation temperature and hot tack strength
- Superior impact strength and transparency
- Outstanding bubble stability & processability

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 | 0.915 | g/cm ³ | ASTM D792 | |
| | Melt index (2.16 kg @190°C) | 1.0 | g/10min | ASTM D1238 | |
| | Melting temperature | 113 | °C | SK Method | |
| | Vicat softening temperature | 102 | °C | ASTM D1525 | |
| Film Properties | Film thickness - tested | 40 | µm | ASTM D374 | |
| | Dart impact strength | >1000 | g | ASTM D1709A | |
| | Haze | 10 | % | ASTM D1003 | |
| | Seal initiation temperature | 104 | °C | SK Method ¹ | |
| | Elmendorf tear strength | MD | 12 | g/µm | ASTM D1922 |
| | | TD | 22 | g/µm | ASTM D1922 |
| | Tensile strength at break | MD | 530 | kg/cm ² | ASTM D882 |
| | | TD | 550 | kg/cm ² | ASTM D882 |

Technical Information

| | | | | |
|---------------------|----|------|--------------------|-----------|
| Elongation at break | MD | 600 | % | ASTM D882 |
| | TD | 650 | % | ASTM D882 |
| Secant modulus (1%) | MD | 1430 | kg/cm ² | ASTM D882 |
| | TD | 1630 | kg/cm ² | ASTM D882 |

| | |
|----------------------------|--|
| Extrusion Condition | <ul style="list-style-type: none"> • 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

Head office SK Global Chemical Co.,LTD
26 Jong-ro, Jongno-gu,
Seoul, Korea
TEL +82-2-2121-5052

TS&D SK innovation Global Technology
325 Exporo, Yueseong-gu,
Daejeon, Korea
TEL +82-42-609-8623