

Smart™ 183

Introduction

Smart™ 183, metallocene LLDPE, is an **ethylene-octene copolymer** produced via Nexlene™ technology. Smart™ 183 performs well in a wide range of general purpose LLDPE cast film applications.

Typical Performance:

- High stiffness and toughness
- Superior processability and neck-in phenomenon

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 | 0.918 | g/cm ³ | ASTM D792 | |
| | Melt index (2.16 kg @190°C) | 3.0 | g/10min | ASTM D1238 | |
| | Melting temperature | 115 | °C | SK Method | |
| | Vicat softening temperature | 105 | °C | ASTM D1525 | |
| Film Properties | Film thickness – tested | 25 | µm | ASTM D374 | |
| | Dart impact strength | 270 | g | ASTM D1709A | |
| | Haze | 1.5 | % | ASTM D1003 | |
| | Seal initiation temperature | 105 | °C | SK Method ¹ | |
| | Elmendorf tear strength | MD | 10 | g/µm | ASTM D1922 |
| | | TD | 21 | g/µm | ASTM D1922 |
| | Tensile strength at break | MD | 500 | kg/cm ² | ASTM D882 |
| TD | | 400 | kg/cm ² | ASTM D882 | |

Technical Information

| | | | | |
|---------------------|----|------|--------------------|-----------|
| Elongation at break | MD | 450 | % | ASTM D882 |
| | TD | 700 | % | ASTM D882 |
| Secant modulus (1%) | MD | 1140 | kg/cm ² | ASTM D882 |
| | TD | 1350 | kg/cm ² | ASTM D882 |

| | |
|----------------------------|--|
| Extrusion Condition | <ul style="list-style-type: none"> • Screw size: 30 mm • Screw speed: 30 rpm • Die gap: 1 mm • Melt temperature: 230°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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