

Technical Information

Smart™ 181S

Introduction

Smart™ 181S, metallocene LLDPE, is an **ethylene-octene copolymer** produced via Nexlene™ technology. Smart™ 181S performs well in a wide range of blown film applications with excellent sealing property and processability.

Typical Performance:

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

Compiles with:

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

Additives:

- Antiblock: 2000 ppm
- Slip: 1000 ppm

Properties

		Typical Values	Unit	Test Method
Resin Properties	Density	0.919	g/cm ³	ASTM D792
	Melt index (2.16 kg @190°C)	1.0	g/10min	ASTM D1238
	Melting temperature	115	°C	SK Method
	Vicat softening temperature	106	°C	ASTM D1525
Film Properties	Film thickness - tested	40	µm	ASTM D374
	Dart impact strength	400	g	ASTM D1709A
	Haze	13	%	ASTM D1003
	Seal initiation temperature	107	°C	SK Method ¹
	Elmendorf tear strength	MD 11	g/µm	ASTM D1922
		TD 21	g/µm	ASTM D1922
	Tensile strength at break	MD 540	kg/cm ²	ASTM D882
		TD 550	kg/cm ²	ASTM D882

Technical Information

Elongation at break	MD	580	%	ASTM D882
	TD	690	%	ASTM D882
Secant modulus (1%)	MD	1690	kg/cm ²	ASTM D882
	TD	2130	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

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

Revised: Aug. 5th, 2016

Copyright SK