

Technical Information

Smart™ 121

Introduction

Smart™ 121, metallocene LLDPE, is an **ethylene-octene copolymer** produced via Nexlene™ technology. Smart™ 121 performs well in a wide range of various food & non-food packaging films with excellent sealing property, impact strength, and processability.

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	0.912	g/cm ³	ASTM D792
	Melt index (2.16 kg @190°C)	1.0	g/10min	ASTM D1238
	Melting temperature	111	°C	SK Method
	Vicat softening temperature	100	°C	ASTM D1525
Film Properties	Film thickness - tested	40	µm	ASTM D374
	Dart impact strength	>1000	g	ASTM D1709A
	Haze	8	%	ASTM D1003
	Seal initiation temperature	101	°C	SK Method ¹
	Elmendorf tear strength	MD 11	g/µm	ASTM D1922
		TD 23	g/µm	ASTM D1922
	Tensile strength at break	MD 510	kg/cm ²	ASTM D882
		TD 510	kg/cm ²	ASTM D882

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Elongation at break	MD	600	%	ASTM D882
	TD	650	%	ASTM D882
Secant modulus (1%)	MD	1190	kg/cm ²	ASTM D882
	TD	1300	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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