

*Technical Information*

# 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 and especially stretch hood applications with excellent sealing property and impact strength.

Typical Performance:

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

Complies with:

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

Additives:

- Antiblock: No
- Slip: No

### Properties

		Typical Values	Unit	Test Method	
<b>Resin Properties</b>	Density	0.905	g/cm <sup>3</sup>	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	
<b>Film Properties</b>	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 <sup>1</sup>	
	Elmendorf tear strength	MD	11	g/µm	ASTM D1922
		TD	17	g/µm	ASTM D1922
	Tensile strength at break	MD	490	kg/cm <sup>2</sup>	ASTM D882
		TD	520	kg/cm <sup>2</sup>	ASTM D882

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

<sup>1</sup> 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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