

# Supreme™ 021S

## Polyolefin Plastomer

### Introduction

Supreme™ 021S, Polyolefin Plastomer (POP), is an **ethylene-octene copolymer** produced via Nexlene™ technology. Supreme™ 021S performs well in a wide range of various food & non-food packaging films with excellent sealing property and impact strength.

Typical Performance:

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

Additives:

- Antiblock: 4000 ppm
- Slip: 1300 ppm

### Properties

		Nominal Value (English)	Nominal Value (SI)	Test Method	
<b>Resin Properties</b>	Density	0.905 g/cm <sup>3</sup>	0.905 g/cm <sup>3</sup>	ASTM D792	
	Melt index (2.16 kg @190°C)	1.0 g/10min	1.0 g/10min	ASTM D1238	
	Melting temperature	212 °F	100 °C	SK Method	
	Vicat softening temperature	188.6 °F	87 °C	ASTM D1525	
<b>Film Properties</b>	Film thickness – tested	40 µm	40 µm	ASTM D374	
	Dart impact strength	>1000 g	>1000 g	ASTM D1709A	
	Haze	5 %	5 %	ASTM D1003	
	Seal initiation temperature	183.2 °F	84 °C	SK Method <sup>1</sup>	
	Elmendorf tear strength	MD	10 g/µm	10 g/µm	ASTM D1922
		TD	17 g/µm	17 g/µm	ASTM D1922

*Technical Information*

Tensile strength at break	MD	6830 psi	47.1 MPa	ASTM D882
	TD	7540 psi	52.0 MPa	ASTM D882
Elongation at break	MD	530 %	530 %	ASTM D882
	TD	610 %	610 %	ASTM D882
Secant modulus (1%)	MD	8250 psi	56.9 MPa	ASTM D882
	TD	9100 psi	62.8 MPa	ASTM D882

<b>Extrusion Condition</b>	<ul style="list-style-type: none"> <li>• Screw size: 55 mm</li> <li>• Die diameter: 180 mm</li> <li>• Die gap: 1.8 mm</li> <li>• Blow-up ratio: 2.1</li> <li>• Melt temperature: 160~180 °C</li> </ul>
----------------------------	--

<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*

**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 +82-42-609-8488