

# Smart™ 181S

Smart™ 181S, metallocene LLDPE, is an ethylene-octene copolymer produced via Nexlene™ Technology from SK. It performs well in a wide range of general purpose of LLDPE blown film applications, and has excellent melt flow characteristics.

Applications: Low-temperature seal packaging, lamination film, food and non-food packaging, etc.

**Additives**      Antiblock: Yes      Slip: Yes

			Typical Values	Unit	Test Method
<b>Resin properties</b>	<b>Co-monomer</b>	<b>Octene-1</b>			SK Method
	<b>Density</b>	<b>0.918</b>		g/cm <sup>3</sup>	ASTM D1505
	<b>MI</b>	<b>1.0</b>		g/10min	ASTM D1238
	<b>Melting point</b>	<b>~ 115</b>		°C	SK Method
<b>Film Properties*</b>	<b>Dart drop impact</b>		800	g	ASTM D1709
	<b>Haze</b>		12	%	ASTM D1003
	<b>Gloss (at 45°)</b>		55		ASTM D2457
	<b>Lowest heat-seal Temp.</b>		110	°C	SK Method
	<b>Initial tear strength</b>	MD	115	kg/cm	ASTM D1004
		TD	120	kg/cm	ASTM D1004
	<b>Elmendorf tear strength</b>	MD	14	g/um	ASTM D1922
		TD	22	g/um	ASTM D1922
	<b>Tensile strength at break</b>	MD	550	kg/cm <sup>2</sup>	ASTM D882
		TD	550	kg/cm <sup>2</sup>	ASTM D882
	<b>Elongation at break</b>	MD	630	%	ASTM D882
		TD	730	%	ASTM D882
	<b>Tensile strength at yield</b>	MD	120	kg/cm <sup>2</sup>	ASTM D882
		TD	115	kg/cm <sup>2</sup>	ASTM D882
	<b>Secant modulus (1%)</b>	MD	1430	kg/cm <sup>2</sup>	ASTM D882
		TD	1590	kg/cm <sup>2</sup>	ASTM D882

\* Typical values, not to be used as specifications.

## Conditions for blown film production

- Machine: Macci blown film line with 50Ø screw
- Film specification: 50um x 600mm