

SABIC® HDPE FI0851P

HIGH DENSITY POLYETHYLENE

DESCRIPTION

HDPE FI0851P is a high molecular weight high density polyethylene resin designed for blown film applications. This resin has broad molecular weight distribution that makes it easier to process. Films made from this resin exhibit high stiffness, excellent impact and toughness characteristics.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 21 kg	8	dg/min	ASTM D1238
at 190 °C and 2.16 kg	0.05	dg/min	ASTM D1238
Density			
Density	0.951	g/cm ³	ASTM D792
MECHANICAL PROPERTIES			
Tensile test ⁽¹⁾			
stress strength @ yield, MD	35	MPa	ASTM D882
stress strength @ yield, TD	30	MPa	ASTM D882
stress strength @ Break, MD	50	MPa	ASTM D882
stress strength @ Break, TD	48	MPa	ASTM D882
stress Elongation @ Break, MD	490	%	ASTM D882
stress Elongation @ Break, TD	500	%	ASTM D882
Elmendorf Tear Strength, MD	17	gf	ASTM D1922
Elmendorf Tear Strength, TD	30	gf	ASTM D1922
Dart Drop Impact	340	g	ASTM D1709
THERMAL PROPERTIES			
Vicat Softening Temperature ⁽²⁾			
Vicat Softening Temperature	126	°C	ASTM D1525

(1) Blown film processing conditions: Extruder Ø50 mm, Die Ø120 mm, Die lip gap 1.35 mm, Temperature 200 °C, Output rate 50 kg/h, BUR 4.0, Film thickness 20 lm, Neck height 840 mm

(2) Typical Properties only and are not to be construed as specification