

## HD4000F

High Density Polyethylene Resin

**Special Characteristics :** InnoPlus HD4000F is high density polyethylene resin which is produced by slurry process, a technology licensed by Mitsui. InnoPlus HD4000F offers good processability, low gel content, high melt strength and good stiffness. This grade is recommended for lamination film, stand-up pouch bag and high quality film of packaging.

**Typical Applications :** Laminated film, Laminated Tube, Stand-up pouch bag, Heavy duty bag, General purpose film for packaging

**Typical Properties :**

Properties	HD4000F	Unit	Test Method
<b>Physical Properties</b>			
Melt Flow Rate (190 °C, 2.16 kg)	0.7	g/10 min	ASTM D1238
Density	0.966	g/cm <sup>3</sup>	ASTM D1505
Vicat Softening Point	125	°C	ASTM D1525
Melting Temperature	135	°C	ASTM D3418
<b>Mechanical Properties (Based on blown film)</b>			
Tensile Strength at Break (MD/TD)	55/34	MPa	ASTM D882
Elongation at Break (MD/TD)	515/3	%	ASTM D882
Tensile Modulus, 2% Secant (MD/TD)	690/920	MPa	ASTM D882
Dart Impact Strength	<62	g	ASTM D1709
Tear Strength (MD/TD)	10/800	g	ASTM D1922
Haze	64	%	ASTM D1003
Gloss (45°)	8	-	ASTM D2457

\* Film made on blown film line at blow up ratio 5.0. film properties obtained from 25 microns film.

**Recommendation :**

Extruder temperature : 160 - 180 °C

Die temperature : 180 - 210 °C