

## High Density Polyethylene HDF1050

### Description:

HDF1050 is a high molecular weight high density polyethylene copolymer with broad bimodal weight distribution developed for the blown film segment. Films made with this resin offer high stiffness, good heat sealing response and resistance to trait propagation.

### Applications:

Very thin film on high-speed line, low caliber.

### Processes:

Blown Film Extrusion

### Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	ASTM D1238	g/10 min	0.06
Melt Flow Rate (190°C/5kg)	ASTM D1238	g/10 min	0.30
Melt Flow Rate (190°C/21.6kg)	ASTM D1238	g/10 min	9.5
Density	ASTM D792	g/cm <sup>3</sup>	0.949

### Typical properties<sup>1</sup>

Feature	Method	Units	Values
Tensile Strength at Yield MD/TD	ASTM D882	MPa	ND/22
Tensile Strength at Break MD/TD	ASTM D882	MPa	60/31
Strain at Yield MD/TD	ASTM D882	%	ND/6
Strain at Break MD/TD	ASTM D882	%	240/380
Elasticity Modulus (Secant 1%) MD/TD	ASTM D882	MPa	665/609
Elmendorf Tear Strength TD	ASTM D1922	gF	39
Dart Drop Impact	ASTM D1709/A	g	220

<sup>1</sup> Film properties tested with a monolayer 12 µm thickness blown film, blow up ratio: 4.5, die gap: 1.2 mm. MT=Machine direction, TD= Transversal direction. The optimum processing conditions will vary according to the type of equipment used and cannot be considered as performance guarantee.

### Typical Properties<sup>1</sup>

Feature	Method	Units	Values
Tensile Strength at Yield	ASTM D 638	MPa	26
Tensile Strength at Break	ASTM D 638	MPa	38
Elasticity Modulus (Secant 1%)	ASTM D 638	MPa	1060
Izod Impact Strength <sup>3</sup>	ASTM D 256/A	J/m	384
ESCR (10% Igepal) <sup>2</sup>	ASTM D 1693	h	>1000

<sup>1</sup> Test specimens from compression molded plaque according to ASTM D4703.

<sup>2</sup> Condition B.

<sup>3</sup> Test temperature at 23°C.

### Final Remarks

- It is the sole responsibility of the Client/Purchaser of this Product to verify the suitability of this Product and its use for the intended use and to ensure compliance with legal and regulatory requirements applicable to the final product.
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