


Technical Data Sheet
 Rev 3 (April/18)

High Density Polyethylene HDF1050XP

Description:

HDF1050XP 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. Pipes.

Process:

Blown Film Extrusion

Control Properties:	Test Methods	Units	Values
Melt Flow Rate (190°C/2.16 Kg)	ASTM D1238	g/10 min	0.06
Melt Flow Rate (190°C/5 Kg)	ASTM D1238	g/10 min	0.35
Melt Flow Rate (190°C/21.6 Kg)	ASTM D1238	g/10 min	9.5
Density	ASTM D792	g/cm ³	0.948

Typical Properties¹:

Typical Properties ¹ :	Test Methods	Uni	Values
Tensile strength at yield, TD	ASTM D882	MPa	22
Elongation at yield, TD	ASTM D882	%	6
Tensile strength at break, MD/TD	ASTM D882	MPa	54/30
Elongation at Break, MD/TD	ASTM D882	%	224/391
Modulus of elasticity, (Secant 1%) MD/TD	ASTM D882	MPa	741/889
Elmendorf Tear Strength, TD	ASTM D1922	gF	90
Dart drop impact	ASTM D1709/A	g	242

¹ 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 Properties²:

Typical Properties ² :	Test Methods	Units	Values
Tensile strength at yield	ASTM D638	MPa	25
Elongation at yield	ASTM D638	%	7
Tensile strength at break	ASTM D638	MPa	39
Elongation at Break	ASTM D638	%	574
Modulus of elasticity, (Secant 1%)	ASTM D638	MPa	1032
Flexural Modulus, (Secant 1%)	ASTM D790	MPa	1137
Izod Impact Strength ³	ASTM D256	J/m	625
Charpy Impact Strength ³	ISO 1791eA	KJ/m ²	28

² Test specimens from compression molded plaque according to ASTM D4703

³ Test temperature 23°C

Final Observations:

- The information in this document is provided in good faith and reflects typical values obtained in our laboratories and should not be considered as absolute nor warranted. Only the properties and values mentioned on the Certificate of Quality are considered as product warranty.
- In some applications, Braskem IDESA has developed resins well-tailored to meet specific requirements.
- In case of doubts regarding our product use or for other applications, please contact our Braskem IDESA technical services serviciotecnico@braskem.com
- For information about safety, handling, individual protection equipment, first aid and disposal, consult the Safety Data Sheet (SDS) or please contact our Braskem IDESA safety team product.safety@braskem.com. CAS Number: 25213-02-9.
- The values reported in this document may change without Braskem IDESA previous communication.
- Braskem IDESA does not recommend the use of this product for the manufacture of packages, parts or any other product used for storage or contact with parenteral solution nor with the inside of the human body.
- The content of this Product Data Sheet replaces the one issued previously.