

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 ³	0.949

Typical properties¹

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	665/871
Elmendorf Tear Strength TD	ASTM D1922	gF	90
Dart Drop Impact	ASTM D1709/A	g	220

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 Properties¹

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 ³	ASTM D 256/A	J/m	480
ESCR (10% Igepal) ²	ASTM D 1693	h	>1000

¹ Test specimens from compression molded plaque according to ASTM D4703.

² Condition B.

³ Test temperature at 23°C.

Final Remarks

- 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 application, Braskem IDESA has developed resins well-tailored to meet specific requirements.
- In case of doubts regarding our product use for other applications, please contact our Braskem IDESA technical services serviciostecnicos@braskem.com
- For information about safety, handling, individual protection equipment, first aid disposal, consult the safety data sheet (SDS) or please contact our Braskem IDESA safety team product.safety@braskem.com CAS Number:2513-02-9
- The values reported in this document may change without Braskem IDESA communication.
- Braskem IDESA does not recommended the use of this product for the manufacture of packages, parts or any other used

- storage or contact with parenteral solution nor with the inside of the human body.
7. The content of this product data sheet replaces the one issued previously.