

High Density Polyethylene HS5010

Description:

HS5010 is a high density polyethylene with high molecular weight, hexene copolymer, produced through "Loop Slurry" process. Offers good processability, have excellent ESCR and low temperature impact resistance.

Application:

Food packing, containers from 5 to 20 liters for chemicals and agrochemicals goods.

Process:

Blow Molding

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190°C/5kg)	D 1238	g/10 min	0.38
Melt Flow Rate (190°C/21.6kg)	D 1238	g/10 min	10
Density	D 792	g/cm ³	0.948

Typical Properties:

Plaque Properties^a

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	25
Tensile Strength at Break	D 638	MPa	34
Flexural Modulus – 1% Secant	D 790	MPa	1100
Shore D Hardness	D 2240	-	65
Izod Impact Strength	D 256	J/m	341
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	106
Environmental Stress Cracking Resistance ^c	D 1693	h/F50	>1000
Deflection Temperature under Load at 0.455 MPa	D 648	°C	68
Vicat Softening Temperature at 10 N	D 1525	°C	126

(a) Test specimens prepared from compression molded sheet made according to ASTM D 4703.

(b) Compression molded 2 mm thickness, 0.3 mm notched-plaques. 10% Igepal. 50°C.

(c) Compression molded 2 mm thickness, 0.3 mm notched-plaques. 100% Igepal. 50°C.

Recommended Processing Conditions:

Temperature Profile:

- Feeding zone: 180°C to 190°C
- Barrel: 190°C to 200°C
- Head/Die: 190°C to 200°C
- Maximum mold temperature: 30°C

Final Remarks:

1. This resin meets the requirements for olefin polymers as defined in 21 CFR, section 177.1520 issued by FDA – Food and Drug Administration in force on the date of publication of this specification. The additives present are covered in appropriate regulation by FDA
2. The information presented in this Data Sheet reflects typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
3. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
4. In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 25213-02-9.
6. The mentioned values in this report can be changed at any moment without Braskem previous communication.
7. Braskem does not recommend this grade for packages, parts or any kind of product manufacture that will be used for storage or contact with solution that will have internal contact with human body.
8. The content of this Data Sheet replaces previous revisions published for this product.
9. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.