

High Density Polyethylene HS5502

Description:

HS5502 is a high density polyethylene, hexene copolymer, produced through "Loop Slurry" Process. Offers exceptional processability and bottles produced have excellent stiffness.

Application:

Blow Molded Small Volume: Food packing, pharmaceuticals, household and industrial chemical containers. Braskem does not recommend the use of HS5502 for the production of films.

Process:

Blow Molding.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	D 1238	g/10 min	0.35
Melt Flow Rate (190°C/21.6kg)	D 1238	g/10 min	32
Density	D 792	g/cm ³	0.955

Typical Properties:

Plaque Properties^a

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	30
Tensile Strength at Break	D 638	MPa	27
Flexural Modulus – 1% Secant	D 790	MPa	1355
Shore D Hardness	D 2240	-	66
Izod Impact Strength	D 256	J/m	186
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	17
Environmental Stress Cracking Resistance ^c	D 1693	h/F50	38
Deflection Temperature under Load at 0.455 MPa	D 648	°C	69
Vicat Softening Temperature at 10 N	D 1525	°C	130

(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: 185°C
- Barrel: 190°C
- Die: 195°C
- Parison: 200°C
- Mold Temperature Range: 5°C to 25°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. Braskem polyolefin products do not have additives with metals or other substances on purpose of oxidegradation. These additives and the decomposition and disintegration of polyolefins caused by oxidegradation phenomenon can cause environmental pollution, decrease the package performance and increase migration of package constituent to food, compromising resin approval regarding the requirements of Anvisa Resolution 105/99. The use of these additives with Braskem polyolefin products implies immediate loss of performance guarantee described in this data sheet.
9. The content of this Data Sheet replaces previous revisions published for this product.
10. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.