



Data Sheet

Review 0 (Jan/16)

High Density Polyethylene HS5103M

Description:

HS5103M is a high molecular weight high-density polyethylene, copolymer. Suitable for large parts blow molded an L-ring drum. Exhibit a good impact resistance and excellent stress cracking resistance (ESCR).

Applications:

L-ring drum and general large parts blow molded.

Additives:

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Process:

Blow Molding.

Control Properties:

	ASTM Methods	Units	Values
Melt Flow Rate (190°C/21.6kg)	D 1238	g/10 min	3.0
Density	D 792	g/cm ³	0.951

Typical Properties:

Plaque Properties^a

	ASTM Methods	Units	Values
Tensile Strength at Break	D 638	MPa	35
Flexural Modulus – 1% Secant	D 790	MPa	1200
Charpy Impact Strength at -40°C	D 6110	J/m	NB
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	500
Environmental Stress Cracking Resistance ^c	D 1693	h/F50	>800
Deflection Temperature under Load at 0.455 MPa	D 648	°C	70

(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: 190°C to 200°C
- Barrel: 200°C to 210°C
- Die: 220°C

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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 Application Engineering.
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.