

High Density Polyethylene HT5303

Description:

HT5303 is a high density polyethylene developed for the manufacturing of corrugated pipes. It exhibits an appropriate balance between stiffness, impact and stress cracking resistance, as well as a high resistance to oxidative degradation.

Application:

Corrugated pipes for energy and telecom cables protection and for drainage of roads and sports fields.

Process:

Pipe Extrusion.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	0.30
Melt Flow Rate (190/21.6)	D 1238	g/10 min	26
Density	D 792	g/cm3	0.954

Typical Properties:

Plaque Properties^a

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	30
Tensile Strength at Break	D 638	MPa	33
Flexural Modulus – 1% Secant	D 790	MPa	1140
Shore D Hardness	D 2240	-	64
Notched Izod Impact Strength	D 256	J/m	100
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	43
Environmental Stress Cracking Resistance ^c	D 1693	h/F50	168
Vicat Softening Temperature at 10 N	D 1525	°C	66
Deflection Temperature under Load at 0.455 MPa	D 648	°C	128
OIT at 200°C	D 3895	min	> 25
NCLS - Notched Constant Ligament Stress	F 2136	h	> 24

(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.

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. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.

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