

## High Density Polyethylene GP5550

### Description:

GP5550 is a High Density Polyethylene with high molar mass. It is produced with bimodal technology and shows excellent mechanical properties and high resistance to stress cracking.

### Application:

Straight pipes for mining; subducts for energy and telecom; jacketing of optic fibers and metallic cables; geomembranes; blends for irrigation pipes.

### Process:

Extrusion.

### Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/5.0)	D 1238	g/10 min	0.30
Density	D 792	g/cm3	0.951

### Typical Properties:

#### Plaque Properties<sup>a</sup>

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	26
Tensile Strength at Break	D 638	MPa	40
Flexural Modulus – 1% Secant	D 790	MPa	1190
Shore D Hardness	D 2240	-	66
Notched Izod Impact Strength	D 256	J/m	NB
Environmental Stress Cracking Resistance <sup>b</sup>	D 1693	h/F50	> 1000
Vicat Softening Temperature at 10 N	D 1525	°C	126
Deflection Temperature under Load at 0.455 MPa	D 648	°C	70
Elongation at Yield	D 882	%	8.4
Elongation at Break	D 882	%	780

(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; 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 Technical Assistance.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 25087-34-7.
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.