

High Density Polyethylene GD5150K

Description:

GD5150K is a High Density Polyethylene, with medium molar mass, specially developed for the manufacturing of insulation for wires and cables demanding high extrusion velocity. It has medium molar mass, shows good dielectric properties and contains special additives to prevent catalytic oxidation of copper.

Application:

Insulation for wires and cables; multiplex cables.

Process:

Extrusion.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	0.83
Density	D 792	g/cm ³	0.946

Typical Properties:

Plaque Properties^a

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	23
Tensile Strength at Break	D 638	MPa	28
Flexural Modulus – 1% Secant	D 790	MPa	950
Shore D Hardness	D 2240	-	63
Notched Izod Impact Strength	D 256	J/m	65
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	139
Vicat Softening Temperature at 10 N	D 1525	°C	121
Deflection Temperature under Load at 0.455 MPa	D 648	°C	69
Elongation at Yield	D 638	%	11
Elongation at Break	D 638	%	980
Dielectric Constant, 1 KHz	D 150		2.3
Dissipation Factor, 1 KHz	D 150		0.0006
Dielectric Strength	D 149	kV/mm	40
Volume Resistivity	D 257	ohm.cm	> 1x10 ¹⁵

(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. 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.
2. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
3. In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance.
4. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 25087-34-7.
5. The mentioned values in this report can be changed at any moment without Braskem previous communication.
6. 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.
7. The content of this Data Sheet replaces previous revisions published for this product.
8. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.

