

## 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 <sup>3</sup>	0.946

### Typical Properties:

Plaque Properties<sup>a</sup>

	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 <sup>b</sup>	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 <sup>15</sup>

(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.

