

# Alathon® M6580WC

High Density Polyethylene  
LyondellBasell Industries

Message:

ALATHON M 6580WC is a natural, high density, polyethylene homopolymer resin with a narrow molecular weight distribution formulated for use as primary insulation for coaxial and control cable applications including gas-injected or chemically expanded insulation. M 6580WC provides enhanced processability and stiffness, exhibits excellent color, low odor and good processing stability.

General Information			
Features	Rigid, good		
	Homopolymer		
	Workability, good		
	Good processing stability		
	The smell is low to none		
	Narrow molecular weight distribution		
Uses	Wire and cable applications		
	Insulating material		
Agency Ratings	ASTM D 1248, III, Class A, Cat. 3, Grade E11		
Appearance	Natural color		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.965	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.2	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	68		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield	28.3	MPa	ASTM D638
Fracture	22.8	MPa	ASTM D638
Tensile Elongation (Break)	1700	%	ASTM D638
Flexural Modulus - 1% Secant	1670	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-76.0	°C	ASTM D746
Vicat Softening Temperature	130	°C	ASTM D1525
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	3.0E+17	ohms·cm	ASTM D257
Dielectric Strength	28	kV/mm	ASTM D149

Dielectric Constant (1 MHz)	2.36	ASTM D150
Dissipation Factor		ASTM D150
1 MHz	3.0E-5	ASTM D150
2.00 GHz	2.0E-5	ASTM D150

#### Additional Information

The value listed as Dielectric Constant, ASTM D150, was tested in accordance with ASTM D1531. The values listed as Dissipation Factor, ASTM D150, was tested in accordance with ASTM D1531.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	149 - 163	°C
Cylinder Zone 2 Temp.	177 - 204	°C
Cylinder Zone 3 Temp.	204 - 232	°C
Cylinder Zone 4 Temp.	246 - 260	°C
Adapter Temperature	246 - 260	°C
Melt Temperature	246 - 260	°C
Die Temperature	246 - 260	°C

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#### Recommended distributors for this material

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