

Alathon® M6080WC

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

ALATHON M6080WC is a natural high density polyethylene homopolymer 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. This resin provides enhanced processability and stiffness and exhibits excellent color, low odor and good processing stability.

General

Material Status	• Commercial: Active		
Literature ¹	• Processing - Mold Shrink (English) • Processing - Polyolefin Injection Molding Guide (English) • Processing - Start-Up Guide (English) • Technical Datasheet (English)		
Search for UL Yellow Card	• LyondellBasell Industries • Alathon®		
Availability	• Asia Pacific • Europe	• North America • South America	
Features	• Good Processability • Good Processing Stability	• Good Stiffness • Homopolymer	• Low to No Odor • Narrow Molecular Weight Distribution
Uses	• Electronic Insulation	• Wire & Cable Applications	
Agency Ratings	• ASTM D 1248, III, Class A, Cat. 3, Grade E11	• MIL L-P-390C, Type II, Class H, Grades 4, Cat. 3	
Appearance	• Natural Color		
Processing Method	• Extrusion		

Physical	Nominal Value Unit	Test Method
Density	0.958 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.0 g/10 min	ASTM D1238

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield	26.9 MPa	
Break	21.4 MPa	
Tensile Elongation (Break)	1900 %	ASTM D638
Flexural Modulus - 1% Secant	1320 MPa	ASTM D790

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	67	ASTM D2240

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 ohm·cm	ASTM D257
Dielectric Strength	28 kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.36	ASTM D1531
Dissipation Factor (1 MHz)	0.000030	ASTM D1531

Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	149 to 163 °C
Cylinder Zone 2 Temp.	177 to 204 °C
Cylinder Zone 3 Temp.	204 to 232 °C
Cylinder Zone 4 Temp.	246 to 260 °C
Cylinder Zone 5 Temp.	246 to 260 °C
Adapter Temperature	246 to 260 °C
Melt Temperature	246 to 260 °C
Die Temperature	246 to 260 °C