Technical Data Sheet

Alathon M6080WC

W&C Polyolefin Compound

Product Description

Alathon M6080WC is a natural high density polyethylene homopolymer with a narrow molecular weight distribution selected by customers for use as primary insulation for coaxial 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.

Alathon M6080WC meets the requirements of the following: ASTM D 1248, Type III, Class A, Category 3, Grade E11; Federal LP390C, Type II, Class H, Category 3, Grade 4.

Regulatory Status

For regulatory compliance information, see *Alathon* M6080WC Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Application	Wire & Cable
Market	Wire & Cable
Processing Method	Wire & Cable

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	8.0	g/10 min	8.0	g/10 min	ASTM D1238
Density, (23 °C)	0.958	g/cm³	0.958	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	192000	psi	1320	MPa	ASTM D790
Tensile Stress at Break	3100	psi	21.4	MPa	ASTM D638
Tensile Stress at Yield	3900	psi	26.9	MPa	ASTM D638
Tensile Elongation at Break	1900	%	1900	%	ASTM D638
Hardness					
Shore Hardness, (Shore D)	67		67		ASTM D2240
Thermal					
Vicat Softening Temperature	266	°F	130	°C	ASTM D1525
Low Temperature Brittleness, F_{50}	<-105	°F	<-76	°C	ASTM D746
Electrical					
Volume Resistivity	3 x 10^{17}	ohm*cm	3 x 10^{17}	ohm*cm	ASTM D257
Dielectric Constant, 1 MHz	2.36		2.36		ASTM D150
Dissipation Factor, 1 MHz	0.00003		0.00003		ASTM D150
Dielectric Strength	700	V/mil			ASTM D149

Manufacturer website: https://www.lyondellbasell.com/en/

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

General Extrusion Conditions

Alathon M6080WC, like other thermoplastic polyolefin resins, can be extruded using a conventional extruder. Below are suggested extrusion conditions for *Alathon* M6080WC. These conditions are intended as general guidelines only, and are not optimum values, since manufacturing variables such as extruder type and size have an effect on processing of thermoplastic resins.

Extruder Zone	Temperature Range	Extruder Zone	Temperature Range
Feed	300 - 325 °F (149 - 163°C)	Adapter	475 - 500 °F (246 - 260 °C)
Zone 2	350 - 400 °F (177 - 204 °C)	Die	475 - 500 °F (246 - 260 °C)
Zone 3	400 - 450 °F (204 - 232 °C)	Melt Temperature	475 - 500 °F (246 - 260 °C)
Zone 4-X	475 - 500 °F (246 - 260 °C)		

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

© LyondellBasell Industries Holdings, B.V. 2026

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.