Polybutene-1 DP 8220M

LyondellBasell Industries - Polybutylene

Monday, November 4, 2019

General Information

Product Description

Polybutene-1 grade DP 8220M is a random copolymer of butene-1 with medium ethylene content.

This grade is highly compatible with polypropylene due to its similar molecular structure, and it is used to modify the sealing behavior of PP-based films - a typical example is its use to reduce the seal initiation temperature of BOPP sealing layers.

Its relatively slow kinetics of crystallization allow for an excellent wetting behavior. Its highly shear-sensitive flow behavior means that it remains easily dispersible also in even more incompatible polymers like thermoplastic elastomers.

Food law compliance information about this product can be found in separate product documentation.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Random Copolymer	• Rapid Wetting	
Uses	• Bi-axially Oriented Film • Blending	• Film • Plastics Modification	
Forms	• Pellets		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.901	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/10.0 kg	46	g/10 min	
190°C/2.16 kg	2.5	g/10 min	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (Yield)	1450	psi	ISO 8986-2
Tensile Stress (Break)	4640	psi	ISO 8986-2
Tensile Strain [2] (Break)	300	%	ISO 8986-2
Flexural Modulus	20300	psi	ISO 178
Thermal	**Nominal Value**	**Unit**	**Test Method**
Melting Temperature (DSC)			DSC
-- [3]	185	°F	
-- [4]	207	°F	

Additional Information

Tm2 corresponds with the melting point of crystalline form 2 which is measured immediately after solidification. Tm2 corresponds with the melting point available for each batch on the Certificate of Analysis (COA).

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	320 to 356	°F

Extrusion Notes

Recommended processing temperatures: 160°C to 180°C. In cases were higher temperatures are required please contact your appropriate technical contact for support.

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Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Measured on specimens conditioned for 10 days at 20°C

[3] Tm2

[4] Tm1