



Polybutene-1 PB 8340M

LyondellBasell Industries - Polybutylene

Monday, November 4, 2019

General Information

Product Description

Polybutene-1 (PB-1) grade Toppyl PB 8340M is a random copolymer of butene-1 with low ethylene content.

In blends with PE polymers, it forms a separate, but well-dispersed phase. Its primary use is as a minority blend component in the seal layer of easy-opening packaging films, produced by cast film extrusion. A typical PE blend partner for Toppyl PB 8340M could be any ethylene homo- or copolymer in the melt index range of 2.0 to 8.0 g/10min.

PB-1 is also highly compatible with polypropylene due to its similar molecular structure, and it can be used to modify PP sealing behavior or mechanical properties such as impact strength. PB-1 crystallizes slowly and is very shear sensitive in its flow behavior.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Heat Seal • Good Impact Resistance	• Good Optical Properties • Good Organoleptic Properties	• Good Processability • Random Copolymer
Uses	• Bags • Film	• Flexible Packaging • Pouches - Flexible Packaging	• Release Film • Rigid Packaging
Forms	• Pellets		
Processing Method	• Blown Film	• Cast Film	• Extrusion

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.911	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/10.0 kg	100	g/10 min	
190°C/2.16 kg	4.0	g/10 min	
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	4350	psi	ISO 527-2
Tensile Strain (Break)	300	%	ISO 527-2
Flexural Modulus	39200	psi	ISO 178
Thermal	Nominal Value	Unit	Test Method
Peak Crystallization Temperature			ISO 11357-3
-- ²	207	°F	
-- ³	235	°F	

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	356 to 392	°F

Extrusion Notes

Recommended processing temperatures: 180°C to 200°C. In cases where 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 Tm2

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).

³ Tm1