

# Polybutene-1 PB 0300M

Polybutylene

LyondellBasell Industries

## Message:

Polybutene-1 grade PB 0300M is a semi-crystalline homopolymer, which is used where creep, environmental stress crack resistance and elevated temperature performance are key requirements.

This polymer is highly compatible with polypropylene due to its similar molecular structure. It is used to improve mechanical properties at elevated temperatures. It is less compatible in blends with polyethylene but it is still easily dispersible. It forms a 2 phase structure which is the basis of the seal peel technology for easy-opening packaging applications.

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.

This product is not intended for use in medical and pharmaceutical applications.

General Information			
Features	Semicrystallization		
	High ESCR (Stress Cracking Resistance)		
	Homopolymer		
	Rapid wetting		
	Good creep resistance		
Uses	Films		
	Mixing		
	cast film		
	Seals		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Density	0.915	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/10.0 kg	70	g/10 min	ISO 1133
190°C/2.16 kg	4.0	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 8986-2
Yield	19.5	MPa	ISO 8986-2
Fracture	35.0	MPa	ISO 8986-2
Tensile Strain <sup>1</sup> (Break)	300	%	ISO 8986-2
Flexural Modulus	450	MPa	ISO 178
Thermal	Nominal Value	Unit	Test Method
Melting Temperature (DSC)			DSC
-- <sup>2</sup>	116	°C	DSC
-- <sup>3</sup>	127	°C	DSC
Additional Information			

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

Extrusion	Nominal Value	Unit
Melt Temperature	190 - 230	°C

#### Extrusion instructions

Recommended processing temperatures: 190°C to 230°C. In cases where higher temperatures are required please contact your appropriate technical contact for support.

#### NOTE

1.	Measured on specimens conditioned for 10 days at 20°C
2.	Tm2
3.	Tm1

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

