

Technical Data Sheet

Polyman ABS E/Hi S NAT



Acrylonitrile Butadiene Styrene

Product Description

High impact ABS extrusion grade

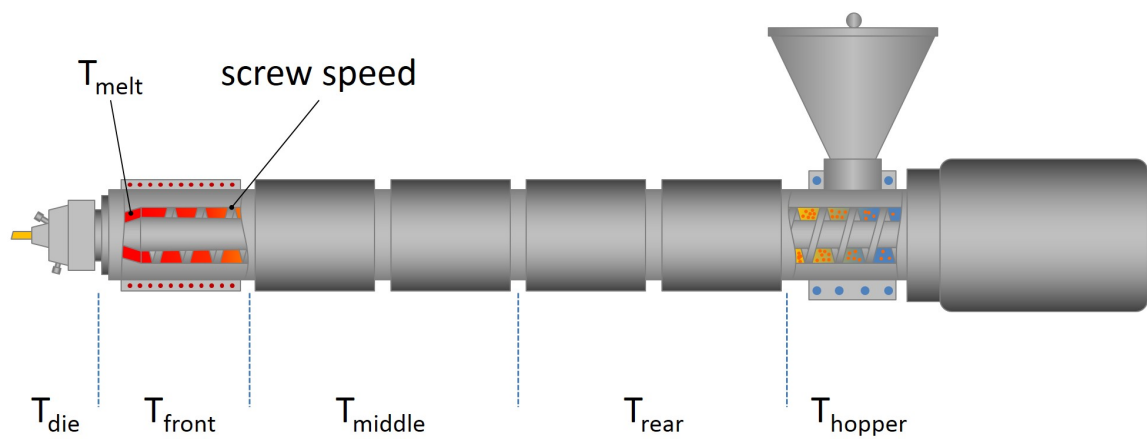
Regulatory Status

For regulatory compliance information, see *Polyman ABS E/Hi S NAT* [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Asia-Pacific; Europe; Latin America; North America
Processing Method	Extrusion; Injection Molding
Attribute	High Impact Resistance
Resin ID	ABS

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (220 °C/10.0 kg)	9.0	cm ³ /10 min	ISO 1133
Density, (Method A)	1.03	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	40.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.5	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	1500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	34	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	19	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
Hardness			
Ball Indentation Hardness, (H 358/30)	85.0	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	90.0	°C	ISO 306
(A (10N), 50 °C/h)	109	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	93.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	88.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			

Burning Rate			
(2.00 mm)	<100	mm/min	ISO 3795
(2.00 mm)	<100	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	650	°C	IEC 60695-2-12
(3.0 mm)	650	°C	IEC 60695-2-12
UL Information			
Flammability Classification, (1.5 mm)	HB		IEC 60695-11-10, -20



Extrusion Parameters		Nominal Value	Units
Drying Temperature		70 to 80	°C

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.

Company Information

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

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