

Technical Data Sheet

Diamond ABS TM40 1402BLK



Acrylonitrile Butadiene Styrene

Product Description

Diamond ABS TM40 1402BLK is a Acrylonitrile Butadiene Styrene material and is typically used in Extrusion, Injection Molding applications. Features include: High Heat Resistance.

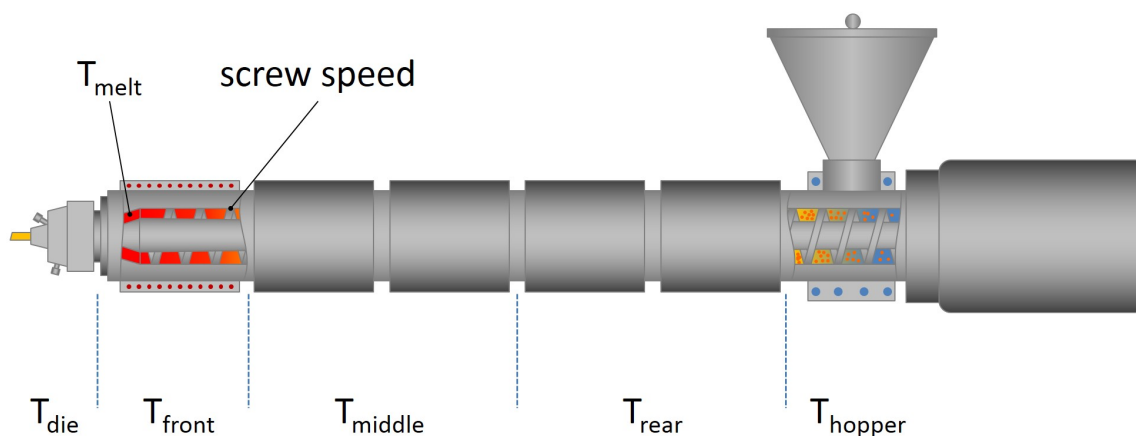
Regulatory Status

For regulatory compliance information, see ABS TM40 1402BLK [Product Stewardship Bulletin \(PSB\) and Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Processing Method	Extrusion; Injection Molding
Attribute	High Heat Resistance
Forms	Pellets
Appearance	Black

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (200 °C/5.0 kg)	0.40	g/10 min	ASTM D1238
Density - Specific Gravity	1.07	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	49.0	MPa	ASTM D638
Tensile Stress at Yield	41.9	MPa	ISO 527-2
Flexural Modulus			
(1.3 mm/min, Tangent)	2190	MPa	ASTM D790
(Chord)	2250	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C)	13	kJ/m ²	ISO 179
(-30 °C)	8.2	kJ/m ²	ISO 179
Notched Izod Impact Strength			
(23 °C)	14	kJ/m ²	ISO 180
(-30 °C)	7.9	kJ/m ²	ISO 180
Notched Izod Impact			
(23 °C)	160	J/m	ASTM D256
(-30 °C)	94	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	104		ASTM D785
Thermal			
Vicat Softening Temperature	137	°C	ISO 306

Deflection Temperature Under Load Annealed (264 psi), (3.18 mm)	116 °C	ASTM D648
Deflection Temperature Under Load Unannealed (0.45 MPa)	124 °C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa)	103 °C	ISO 75-2/A
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	106 °C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	123 °C	ASTM D648
Coefficient of Linear Thermal Expansion (CLTE), Flow (TMA)	9.1E-05 cm/cm/°C	ASTM E831
Coefficient of Linear Thermal Expansion (CLTE), Perpendicular (TMA)	0.00011 cm/cm/°C	ASTM E831



Extrusion Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	<0.020	%
Suggested Max Regrind	40	%
Drying Temperature	82 to 93	°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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