

Technical Data Sheet

Diamond ABS TR7 50055GRY



Acrylonitrile Butadiene Styrene

Product Description

Diamond ABS TR7 50055GRY is a Acrylonitrile Butadiene Styrene material and is typically used in Extrusion, Injection Molding applications. Features include: Good Dimensional Stability, Good Flow, High Heat Resistance, High Stiffness, Paintable, and Platable.

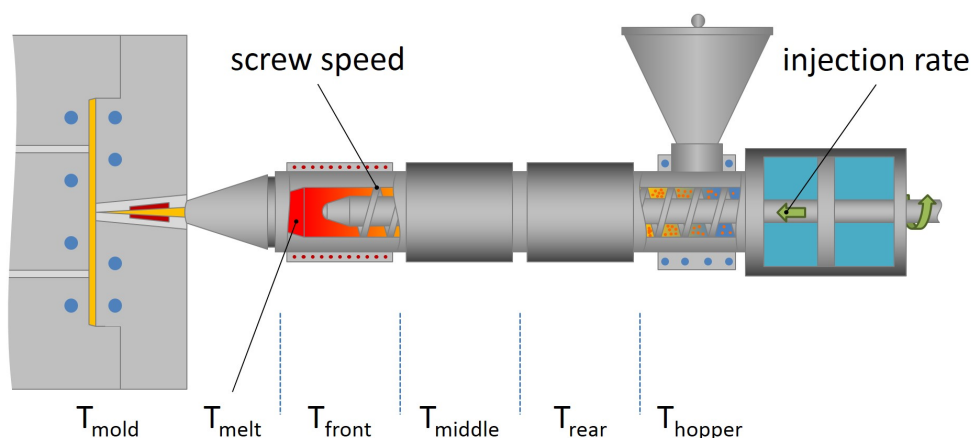
Regulatory Status

For regulatory compliance information, see ABS TR7 50055GRY [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Processing Method	Extrusion; Injection Molding
Attribute	Good Dimensional Stability; Good Flow; High Heat Resistance; High Stiffness; Paintable; Platable
Forms	Pellets
Appearance	Natural Color
Application	Appliances; Automotive Exterior Parts; Automotive Interior Trim

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(220 °C/10.0 kg)	4.9	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	1.6	g/10 min	ASTM D1238
Density - Specific Gravity	1.08	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (50 mm/min)	43.0	MPa	ASTM D638
Tensile Stress at Yield	41	MPa	ISO 527-2
Flexural Modulus			
(Injection Molded, Chord)	2340	MPa	ISO 178
(1.3 mm/min, Procedure B, Method I (3 point load), 1% Secant)	2130	MPa	ASTM D790
Impact			
Charpy Impact Strength - Notched			
(23 °C)	17	kJ/m ²	ISO 179
(-30 °C)	9.5	kJ/m ²	ISO 179
Notched Izod Impact Strength			
(23 °C)	19	kJ/m ²	ISO 180
(-30 °C)	9.5	kJ/m ²	ISO 180
Notched Izod Impact			
(-30 °C)	110	J/m	ASTM D256
(23 °C, Method A)	200	J/m	ASTM D256
Hardness			

Rockwell Hardness		
(R-Scale)	111	ASTM D785
(R-Scale)	111	ISO 2039-2
Thermal		
Vicat Softening Temperature	122 °C	ISO 306
(Loading 1 (10 N))	125 °C	ASTM D1525
Deflection Temperature Under Load Unannealed (0.45 MPa)	111 °C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa)	94.6 °C	ISO 75-2/A
Deflection Temperature Under Load Unannealed (264 psi)	94.3 °C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	110 °C	ASTM D648
Coefficient of Linear Thermal Expansion (CLTE), Flow (TMA)	7.8E-05 cm/cm/°C	ASTM E831
Coefficient of Linear Thermal Expansion (CLTE), Perpendicular (TMA)	9.1E-05 cm/cm/°C	ASTM E831



Injection Parameters	Nominal	
	Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	82 to 90	°C
Suggested Max Moisture	0.1	%
Front Temperature	200 to 250	°C
Middle Temperature	200 to 250	°C
Rear Temperature	200 to 250	°C
Injection Rate	Moderate-Fast	
Mold Temperature	40 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/>.

© LyondellBasell Industries Holdings, B.V. 2018

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.