Diamond ABS TR7 1609BLK

LyondellBasell Industries - Acrylonitrile Butadiene Styrene

General Information

Product Description

Diamond ABS TR7 1609BLK 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.

General

Features	• Good Dimensional Stability • Good Flow	• High Heat Resistance • High Stiffness	• Paintable • Platable
Uses	• Appliances	• Automotive Exterior Parts	• Automotive Interior Trim
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.08		ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	4.9	g/10 min	
230°C/3.8 kg [2]	1.6	g/10 min	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3] (Yield)	6240	psi	ASTM D638
Tensile Stress (Yield)	5950	psi	ISO 527-2
Flexural Modulus - 1% Secant [4]	309000	psi	ASTM D790B
Flexural Modulus - Chord (Injection Molded)	339000	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F	4.5	ft·lb/in²	
73°F	8.1	ft·lb/in²	
Notched Izod Impact			
-22°F	2.1	ft·lb/in	ASTM D256
73°F	3.7	ft·lb/in	ASTM D256A
Notched Izod Impact Strength			ISO 180
-22°F	4.5	ft·lb/in²	
73°F	9.0	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	111		ASTM D785
Rockwell Hardness (R-Scale)	111		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	230	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	232	°F	ISO 75-2/B
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	202	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed	202	°F	
Vicat Softening Temperature	257	°F	ASTM D1525 [5]

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	252	°F	ISO 306
CLTE - Flow	4.3E-5	in/in/°F	ASTM E831
CLTE - Transverse	5.1E-5	in/in/°F	ASTM E831

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180 to 194	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	392 to 482	°F
Middle Temperature	392 to 482	°F
Front Temperature	392 to 482	°F
Mold Temperature	104 to 176	°F
Injection Rate	Moderate-Fast	