HK:+852-69575415 China GuangDong:+13538586433 ShangHai:+18816996168

Technical Data Sheet

Diamond Abs TR-7

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

General			
Features	• Good Dimensional Stability • Good Flow	• High Heat Resistance • High Stiffness	• Paintable • Platable
Uses	• Appliances	• Automotive Exterior Parts	• Automotive Interior Trim
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.11	1.11 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°c/10.0 Kg	4.9 g/10 min	4.9 g/10 min	
230°c/3.8 Kg [1]	1.6 g/10 min	1.6 g/10 min	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength			
Yield [2]	6240 psi	43.0 MPa	ASTM D638
Yield	5950 psi	41.0 MPa	ISO 527-2
Flexural Modulus			
Chord : Injection Molded	339000 psi	2340 MPa	ISO 178
1% Secant [3]	309000 psi	2130 MPa	ASTM D790B
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°f (-30°c)	4.5 ft·lb/in²	9.5 kJ/m²	
73°f (23°c)	7.9 ft·lb/in²	17 kJ/m²	
Notched Izod Impact			
-22°f (-30°c)	2.0 ft·lb/in	110 J/m	ASTM D256
73°f (23°c) [4]	3.7 ft·lb/in	200 J/m	ASTM D256
-22°f (-30°c)	4.5 ft·lb/in²	9.5 kJ/m²	ISO 180
73°f (23°c)	9.0 ft·lb/in²	19 kJ/m²	ISO 180
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness (R-scale)	111	111	ASTM D785 ISO 2039-2
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	229 °F	110 °C	ASTM D648
66 Psi (0.45 Mpa), Unannealed	232 °F	111 °C	ISO 75-2/B
264 Psi (1.8 Mpa), Unannealed	202 °F	94.3 °C	ASTM D648 ISO 75-2/A
Vicat Softening Temperature			
--	257 °F	125 °C	ASTM D1525 [5]
--	252 °F	122 °C	ISO 306
CLTE			ASTM E831
Flow	4.3E-5 in/in/°F	7.8E-5 cm/cm/°C	
Transverse	5.1E-5 in/in/°F	9.1E-5 cm/cm/°C	

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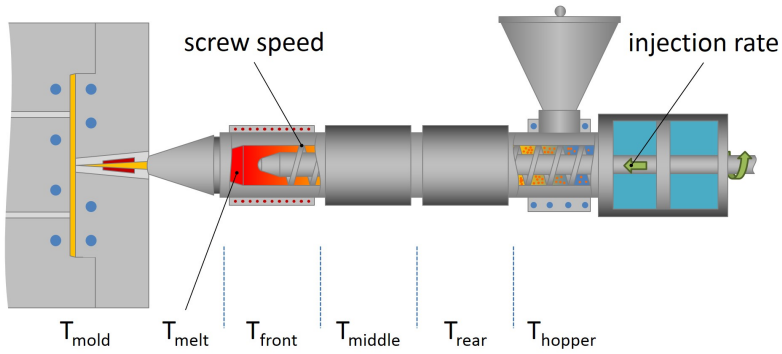

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	180 to 194 °F	82 to 90 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Rear Temperature	392 to 482 °F	200 to 250 °C
Middle Temperature	392 to 482 °F	200 to 250 °C
Front Temperature	392 to 482 °F	200 to 250 °C
Mold Temperature	104 to 176 °F	40 to 80 °C
Injection Rate	Moderate-Fast	Moderate-Fast

Notes

[1] Procedure A
[2] 2.0 in/min (50 mm/min)
[3] Method I (3 point load), 0.050 in/min (1.3 mm/min)
[4] Method A
[5] Loading 1 (10 N)

Notes

These are typical property values not to be construed as specification limits.