Technical Data Sheet

Diamond Abs 9501

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

General			
Features	• Ultra High Impact Resistance		
Uses	• Marine Applications	• Sheet	• Thermoforming Applications
Agency Ratings	• EC 1907/2006 (REACH)	• EU 2002/96/EC (WEEE)	
RoHS Compliance	• RoHS Compliant		
UL File Number	• E119088		
Appearance	• Colors Available		
Forms	• Pellets		
Processing Method	• Extrusion	• Sheet Extrusion	• Thermoforming

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.04	1.04 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) [1] (200°c/5.0 Kg)	0.40 to 1.2 g/10 min	0.40 to 1.2 g/10 min	ASTM D1238
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength			ASTM D638
Yield [2]	6240 psi	43.0 MPa	
Break	4930 psi	34.0 MPa	
Tensile Elongation (Break)	20 %	20 %	ASTM D638
Flexural Modulus - 2% Secant [3]	333000 psi	2300 MPa	ASTM D790
Flexural Strength	10000 psi	69.0 MPa	ASTM D790
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256
-40°f (-40°c)	2.8 ft·lb/in	150 J/m	
73°f (23°c)	9.7 ft·lb/in	520 J/m	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness (R-scale)	101	101	ASTM D785
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed, 0.125 In (3.18 Mm)	195 °F	90.7 °C	
264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm)	168 °F	75.6 °C	
264 Psi (1.8 Mpa), Annealed, 0.125 In (3.18 Mm)	203 °F	95.0 °C	
Vicat Softening Temperature	221 °F	105 °C	ASTM D1525 [4]
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating (0.06 In (1.5 Mm))	HB	HB	UL 94

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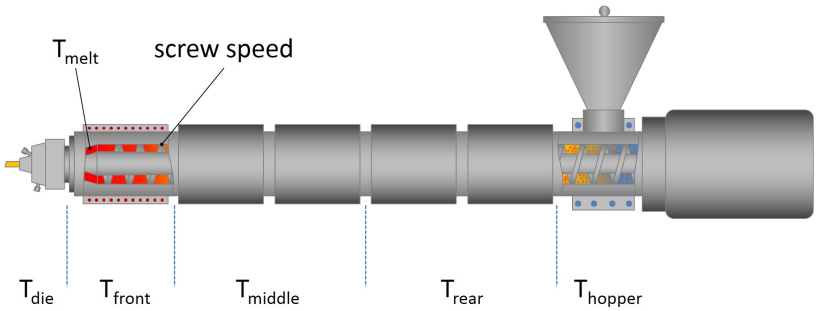

Extrusion	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	< 0.10 %	< 0.10 %
Cylinder Zone 1 Temp.	350 to 365 °F	177 to 185 °C
Cylinder Zone 2 Temp.	375 to 385 °F	191 to 196 °C
Cylinder Zone 3 Temp.	390 to 410 °F	199 to 210 °C
Cylinder Zone 4 Temp.	415 to 425 °F	213 to 218 °C
Cylinder Zone 5 Temp.	425 to 450 °F	218 to 232 °C
Extrusion Notes		
Gate: 425F - 450F		

Notes

[1] Procedure A
[2] 2.0 in/min (51 mm/min)
[3] 0.050 in/min (1.3 mm/min)
[4] Loading 1 (10 N)

Notes

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