

Technical Data Sheet

**Diamond ABS 3501 1002 ESCRNAT**



Acrylonitrile Butadiene Styrene

**Product Description**

Diamond ABS 3501 1002 ESCRNAT is a Acrylonitrile Butadiene Styrene material and is typically used in Injection Molding applications. Features include: High ESCR.

**Processing Method** Injection Molding  
**Attribute** High ESCR (Environmental Stress Cracking Resistance)

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	0.70	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	3.0	g/10 min	ASTM D1238
Density - Specific Gravity	1.05	g/cm <sup>3</sup>	ASTM D792
<b>Mechanical</b>			
Tensile Strength at Yield, (51 mm/min)	44.8	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	2340	MPa	ASTM D790
<b>Impact</b>			
Notched Izod Impact, (23 °C, 3.18 mm)	270	J/m	ASTM D256
<b>Hardness</b>			
Rockwell Hardness, (R-Scale)	108		ASTM D785
<b>Thermal</b>			
Vicat Softening Temperature, (Loading 1 (10 N))	104	°C	ASTM D1525
Deflection Temperature Under Load Annealed (264 psi), (3.18 mm)	93.9	°C	ASTM D648
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	77.2	°C	ASTM D648
<b>UL Information</b>			
Flame Rating, (1.5 mm)	HB		UL 94
UL File Number	E119088		

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80 to 85	°C
Suggested Max Moisture	0.1	%
Front Temperature	190 to 250	°C
Middle Temperature	190 to 250	°C
Rear Temperature	190 to 250	°C
Injection Rate	Moderate-Fast	
Mold Temperature	40 to 80	°C