

## Diamond Polymers ASA TW-20

Category : Polymer , Thermoplastic , ASA Polymer , Acrylonitrile/Styrene/Acrylate (ASA), Unreinforced, Molded

### Material Notes:

Description: ASA Weatherable Polymer, Injection Molding Grade, High Heat Information provided by Diamond Polymers, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Diamond-Polymers-ASA-TW-20.php](http://www.lookpolymers.com/polymer_Diamond-Polymers-ASA-TW-20.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.09 g/cc	1.09 g/cc	ASTM D792
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ASTM D955
Melt Flow	0.30 g/10 min	0.30 g/10 min	Procedure A Condition G; ASTM D1238
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	
	1.1 g/10 min	1.1 g/10 min	Procedure A Condition I; ASTM D1238
	@Load 3.80 kg, Temperature 230 °C	@Load 8.38 lb, Temperature 446 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110	110	ASTM D785
Tensile Strength, Yield	45.5 MPa	6600 psi	chs 2 in/min; ASTM D638
Flexural Modulus	2.43 GPa	352 ksi	Tangent, chs 0.05 in/min; ASTM D790
Izod Impact, Notched	0.961 J/cm	1.80 ft-lb/in	bar; ASTM D256
	@Thickness 3.17 mm, Temperature 23.0 °C	@Thickness 0.125 in, Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	92.8 °C	199 °F	0.125 in bar Unannealed/Conditioned 48 hours at 23°C; ASTM D648
	100 °C	212 °F	0.25 in bar Unannealed/Conditioned 48 hours at 23°C; ASTM D648
Vicat Softening Point	128 °C	262 °F	0.125 inch, 1 Kg; ASTM D1525

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	229 - 260 °C	445 - 500 °F	
Middle Barrel Temperature	232 - 266 °C	450 - 510 °F	

Front Barrel Temperature Processing Properties	235 - 271 °C Metric	455 - 520 °F English	Comments
Nozzle Temperature	221 - 271 °C	430 - 520 °F	
Melt Temperature	221 - 271 °C	430 - 520 °F	Melt temperatures above 530°F are not recommended, and may result in color shifts and or thermal instability.
Mold Temperature	37.8 - 82.2 °C	100 - 180 °F	Higher mold temperature can aid flow in processing, provides a better surface finish, and creates less residual stress in the finished products.
Drying Temperature	80.0 - 85.0 °C	176 - 185 °F	
Dry Time	2 - 4 hour	2 - 4 hour	
Moisture Content	<= 0.10 %	<= 0.10 %	
Back Pressure	0.517 - 1.03 MPa	75.0 - 150 psi	

## Contact Songhan Plastic Technology Co.,Ltd.

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