

## Diamond Polymers ASA M-523

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-M-523.php](http://www.lookpolymers.com/polymer_Diamond-Polymers-ASA-M-523.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.10 g/cc	1.10 g/cc	ASTM D792
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ASTM D955
Melt Flow	9.2 g/10 min @Load 5.00 kg, Temperature 200 °C	9.2 g/10 min @Load 11.0 lb, Temperature 392 °F	Procedure A Condition G; ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	49.95 MPa	7245 psi	chs 2 in/min; ASTM D638
Flexural Strength	78.6 MPa	11400 psi	chs 0.05 in/min; ASTM 790
Flexural Modulus	2.40 GPa	348 ksi	Tangent, chs 0.05 in/min; ASTM D790
Izod Impact, Notched	0.801 J/cm @Thickness 3.17 mm, Temperature 23.0 °C	1.50 ft-lb/in @Thickness 0.125 in, Temperature 73.4 °F	bar; ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	100 °C	212 °F	0.125 in bar Unannealed/Conditioned 40 hours at 23°C; ASTM D648
	103 °C	217 °F	0.25 in bar Unannealed/Conditioned 40 hours at 23°C; ASTM D648

Optical Properties	Metric	English	Comments
Gloss	96.5 %	96.5 %	at 60°; ASTM D523

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	249 - 254 °C	480 - 490 °F	
Middle Barrel Temperature	260 - 266 °C	500 - 510 °F	
Front Barrel Temperature	266 - 271 °C	510 - 520 °F	

<b>Nozzle Temperature Processing Properties</b>	<b>266 - 271 °C Metric</b>	<b>510 - 520 °F English</b>	<b>Comments</b>
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	76.7 - 82.2 °C	170 - 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	82.2 - 92.2 °C	180 - 198 °F	
Dry Time	4 - 6 hour	4 - 6 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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