

## Diamond Polymers ABS 4500R

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), Impact Grade, Molded

### Material Notes:

Description: Injection Molding Grade, Medium Impact Information provided by Diamond Polymers, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Diamond-Polymers-ABS-4500R.php](http://www.lookpolymers.com/polymer_Diamond-Polymers-ABS-4500R.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.06 g/cc	1.06 g/cc	ASTM D792
Linear Mold Shrinkage	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	ASTM D955
Melt Flow	2.2 g/10 min	2.2 g/10 min	Procedure A Condition G; ASTM D1238
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	
	8.3 g/10 min	8.3 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	46.2 MPa	6700 psi	chs 2 in/min; ASTM D638
Flexural Modulus	2.32 GPa	336 ksi	Tangent, chs 0.05 in/min; ASTM D790
Izod Impact, Notched	2.14 J/cm	4.00 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)	77.2 °C	171 °F	0.125 in bar Unannealed/Conditioned 48 hours at 23°C; ASTM D648
	93.9 °C	201 °F	0.125 in bar Annealed 4 hours at 80°C; ASTM D648
Vicat Softening Point	104 °C	219 °F	0.125 inch, 1 Kg; ASTM D1525
Flammability, UL94	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Processing Properties	Metric	English	Comments
Middle Barrel Temperature	190 - 250 °C	374 - 482 °F	

Processing Properties	Metric	English	Comments
Mold Temperature	40.0 - 60.0 °C	104 - 140 °F	Higher mold temperature provides a product with excellent surface finishing and less residual stress.
Drying Temperature	80.0 - 85.0 °C	176 - 185 °F	
Dry Time	2 - 4 hour	2 - 4 hour	
Injection Pressure	4.83 - 7.58 MPa	700 - 1100 psi	

## Contact Songhan Plastic Technology Co.,Ltd.

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