

## Styron Magnum<sup>®</sup> 357HP ABS, High Heat

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), Heat Resistant, Molded

### Material Notes:

MAGNUM<sup>®</sup> ABS resins are thermoplastic materials which provide an excellent balance of processability, impact resistance and heat resistance as imparted by the various polymer compositions. MAGNUM ABS resin are available in a wide range of melt flow rates, impact strength and heat resistance for both high and low gloss applications manufactured by injection molding, sheet or profile extrusion and thermoforming. The Automotive grades of MAGNUM ABS resins offer a wide range of gloss, viscosity, impact strength and heat properties for use in numerous automotive applications. Melt flow rates from 1 to 12 g/10 min, impact strengths from 130 to 590 J/m and heat distortion temperatures from 77.C to 90.C are available. Available primarily as natural plus concentrates, MAGNUM ABS resins are used in a wide variety of automotive applications including structural instrument panels, consoles, pillars and exterior trim parts requiring painting and plating. MAGNUM 357 HP ABS resin is a low gloss, high heat material that has slightly higher heat resistance and a little higher melt flow rate than MAGNUM 358 HP ABS resin. Data provided by Dow Chemical. This product line was spun off from Dow Chemical to Styron in 2010.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styron-Magnum-357HP-ABS-High-Heat.php](http://www.lookpolymers.com/polymer_Styron-Magnum-357HP-ABS-High-Heat.php)

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in <sup>3</sup>	ASTM Data
Melt Density	1.08 g/cc	0.0390 lb/in <sup>3</sup>	Melt density
Linear Mold Shrinkage	0.0055 cm/cm	0.0055 in/in	
Melt Flow	2.0 g/10 min @Load 3.80 kg, Temperature 230 °C	2.0 g/10 min @Load 8.38 lb, Temperature 446 °F	ASTM Data

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	33.1 MPa	4800 psi	ASTM Data
Tensile Strength, Yield	37.9 MPa	5500 psi	ASTM Data
Elongation at Break	45 %	45 %	ASTM Data
Elongation at Yield	2.3 %	2.3 %	ISO Data
Tensile Modulus	2.00 GPa	290 ksi	ASTM Data
Izod Impact, Notched	2.40 J/cm	4.50 ft-lb/in	ASTM Data
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	ISO Data, Low Temp
	NB	NB	ISO Data
Charpy Impact, Notched	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	ISO Data, Low Temp

Mechanical Properties	Metric	English	Comments
Impact Test	43.0 J @Temperature 23.0 °C	31.7 ft-lb @Temperature 73.4 °F	Instrumented Dart Total Energy ISO Data

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature 20.0 °C	44.4 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature 68.0 °F	ISO data
Specific Heat Capacity	1.89 J/g-°C	0.452 BTU/lb-°F	
Thermal Conductivity	0.135 W/m-K	0.937 BTU-in/hr-ft <sup>2</sup> - °F	
Deflection Temperature at 0.46 MPa (66 psi)	104 °C	219 °F	Unannealed; ASTM Data
Deflection Temperature at 1.8 MPa (264 psi)	88.0 °C	190 °F	Unannealed; ASTM Data
Vicat Softening Point	120 °C	248 °F	

## Contact Songhan Plastic Technology Co.,Ltd.

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