

Styron MAGNUM[®],ç 357 HP Acrylonitrile Butadiene Styrene (ABS) Resin

Category : Polymer , Thermoplastic , ABS Polymer

Material Notes:

Overview: MAGNUM[®],ç 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 resins 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 processes. Automotive 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 2.5 to 12 ft-lb/in and heat distortion temperatures from 165 to 190[°]F 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 medium gloss, high heat material that has slightly higher heat resistance and a little higher melt flow rate than MAGNUM 358 HP ABS resin. Information provided by Styron

Order this product through the following link:

http://www.lookpolymers.com/polymer_Styron-MAGNUM-357-HP-Acrylonitrile-Butadiene-Styrene-ABS-Resin.php

Physical Properties	Metric	English	Comments
Density	1.06 g/cc	0.0383 lb/in ³	ASTM D792
Melt Density	1.08 g/cc	0.0390 lb/in ³	
Maximum Moisture Content	0.10	0.10	
Linear Mold Shrinkage, Flow	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ASTM D955
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 D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	33.1 MPa	4800 psi	Type I, 51 mm/min; ASTM D638
Tensile Strength, Yield	37.9 MPa	5500 psi	Type I, 51 mm/min; ASTM D638
Elongation at Break	45 %	45 %	Type I, 51 mm/min; ASTM D638
Tensile Modulus	2.00 GPa	290 ksi	Type I, 51 mm/min; ASTM D638
Flexural Strength	62.1 MPa	9010 psi	Type I, 1.3 mm/min; ASTM D790
Flexural Modulus	2.21 GPa	321 ksi	Type I, 1.3 mm/min; ASTM D790
Izod Impact, Notched	1.30 J/cm @Thickness 3.20 mm, Temperature -18.0 [°] C	2.44 ft-lb/in @Thickness 0.126 in, Temperature -0.400 [°] F	0.25 mm Notch Depth; ASTM D256

Mechanical Properties	Metric/cm	English/lb/in	Comments
	@Thickness 3.20 mm, Temperature 23.0 Â°C	@Thickness 0.126 in, Temperature 73.4 Â°F	0.25 mm Notch Depth; ASTM D256
Dart Drop, Total Energy	22.6 J @Thickness 3.20 mm, Temperature -18.0 Â°C	16.7 ft-lb @Thickness 0.126 in, Temperature -0.400 Â°F	3.39 m/sec, Peak Energy; ASTM D3763
	23.7 J @Thickness 3.20 mm, Temperature -18.0 Â°C	17.5 ft-lb @Thickness 0.126 in, Temperature -0.400 Â°F	3.39 m/sec, Total Energy; ASTM D3763
	32.8 J @Thickness 3.20 mm, Temperature 23.0 Â°C	24.2 ft-lb @Thickness 0.126 in, Temperature 73.4 Â°F	3.39 m/sec, Peak Energy; ASTM D3763
	42.9 J @Thickness 3.20 mm, Temperature 23.0 Â°C	31.6 ft-lb @Thickness 0.126 in, Temperature 73.4 Â°F	3.39 m/sec, Total Energy; ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	81.0 Âµm/m-Â°C	45.0 Âµin/in-Â°F	ASTM D696
Thermal Conductivity	0.130 W/m-K	0.902 BTU-in/hr-ftÂ²- Â°F	Melt; ASTM C177
Deflection Temperature at 0.46 MPa (66 psi)	104 Â°C @Thickness 3.20 mm	219 Â°F @Thickness 0.126 in	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	87.8 Â°C @Thickness 3.20 mm	190 Â°F @Thickness 0.126 in	Unannealed; ASTM D648
Vicat Softening Point	120 Â°C	248 Â°F	ASTM D1525

Processing Properties	Metric	English	Comments
Melt Temperature	260 - 282 Â°C	500 - 540 Â°F	
Mold Temperature	37.8 - 82.2 Â°C	100 - 180 Â°F	
Drying Temperature	82.2 - 85.0 Â°C	180 - 185 Â°F	
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	
Back Pressure	0.345 - 0.689 MPa	50.0 - 99.9 psi	

Descriptive Properties	Value	Comments
Clamp Tonnage	2.8-4.1 kN/cm ²	
Ejection Temperature	127Â°C	
No Flow Temperature	150Â°C	
Screw Compression Ratio	1.5:1 to 3.5:1	
Screw L/D Ratio	0.8340277777777778	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China