

## Styron Magnumâ,, ¢ 541 ABS, High Impact

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

## **Material Notes:**

MAGNUM® 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 541 ABS resin is a low gloss, high impact resin with good flow characteristicsData 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-541-ABS-High-Impact.php

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in³	ASTM Data
Melt Density	0.890 g/cc	0.0322 lb/in³	Melt density
Linear Mold Shrinkage	0.0055 cm/cm	0.0055 in/in	
Melt Flow	6.0 g/10 min	6.0 g/10 min	ASTM Data
	@Load 3.80 kg, Temperature 230 °C	@Load 8.38 lb, Temperature 446 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	44.8 MPa	6500 psi	ASTM Data
Elongation at Yield	2.4 %	2.4 %	ISO Data
Tensile Modulus	2.21 GPa	321 ksi	ASTM Data
Izod Impact, Notched	2.67 J/cm	5.00 ft-lb/in	ASTM Data
Charpy Impact Unnotched	10.0 J/cm²	47.6 ft-lb/in²	ISO Data, Low Temp
	NB	NB	ISO Data
Charpy Impact, Notched	0.900 J/cm²	4.28 ft-lb/in²	ISO Data, Low Temp
	2.40 J/cm²	11.4 ft-lb/in²	ISO Data
	51.0 J	37.6 ft-lb	
Impact Test	@Temperature 23.0		Instrumented Dart Total Energy



Mechanical Properties	Á°C Metric	@Temperature 73.4 ŰF English	Comments
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	79.0 µm/m-°C @Temperature 20.0 ðC	43.9 Âμin/in-°F @Temperature 68.0 °F	ISO data
Specific Heat Capacity	2.03 J/g-°C	0.485 BTU/lb-°F	
Thermal Conductivity	0.128 W/m-K	0.888 BTU-in/hr-ft²- °F	
Deflection Temperature at 0.46 MPa (66 psi)	93.0 °C	199 °F	Unannealed; ASTM Data
Deflection Temperature at 1.8 MPa (264 psi)	79.4 °C	175 °F	Unannealed; ASTM Data
Vicat Softening Point	107 °C	225 °F	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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