



# MAGNUM 9010

## ABS Resin

### Overview

MAGNUM\* 9010 ABS resin is a thermoplastic material that provides 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 strengths, and heat resistances for both high and low gloss applications manufactured by injection molding, sheet or profile extrusion, and thermoforming. The MAGNUM 9000 series of high gloss ABS resins are designed to offer a wide range of impact strengths and melt flow rates to meet the needs of the durables injection molding markets. MAGNUM 9010 ABS resin is one of the highest gloss resins with medium impact strength and high flow. MAGNUM 9010 ABS resin is used primarily in injection molding durables applications.

### Applications

- Housewares
- Computer equipment

Physical Properties <sup>(1)</sup>	Test Method	English Units	SI Units
Specific Gravity	ASTM D 792	1.04	1.04
Melt Flow Rate 230°C/3.8kg	ASTM D 1238		
		7.0 g/10 min	7.0 g/10 min
Mold Shrinkage, Flow	ASTM D 955	0.004-0.007 in/in	0.004-0.007 cm/cm
Mechanical Properties <sup>(2)</sup>			
Tensile Strength at Yield	ASTM D 638	6500 psi	45 MPa
Tensile Modulus, 1 mm/min	ASTM D 638	369,000 psi	2544 MPa
Tensile Strength at Break	ASTM D 638	5,100 psi	35 MPa
Tensile Elongation at Break	ASTM D 638	35 %	35 %
Flexural Strength, 3-points, 2 mm/min	ASTM D 790	11,500 psi	79 MPa
Flexural Modulus, 3-points, 2 mm/min	ASTM D 790	400,000 psi	2758 MPa
Notched Izod Impact 73°F (23°C)	ASTM D 256	4.0 ft-lb/in	210 J/m
		83 ft-lb/in	9 J/m
Instrumented Dart Impact	ASTM D 3763		
Peak energy @ 73°F (23°C)		240 in-lb	29 J
Peak energy @ 0°F (-18°C)		80 in-lb	9 J
Total energy @ 73°F (23°C)		370 in-lb	42 J
Total energy @ 0°F (-18°C)		83 in-lb	9 J
Thermal Properties			
Deflection Temperature Under Load 66 psi (0.45 MPa), unannealed	ASTM D 648	204°F	95°C
264 psi (1.8 MPa), unannealed		180°F	82°C
Vicat Softening Point 120°C/hr, 10N	ASTM D 1525	230°F	110°C
Flammability <sup>(3)</sup>			
UL Classification at 0.06 in (1.47 mm)	UL94	HB	HB
Optical Properties			
Gardner Gloss, 60°	ASTM D 523	95 %	95 %

