Technical Data Sheet

MAGNUM 9030

ABS Resin

Overview

MAGNUM* 9030 ABS resins are thermoplastic materials that 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 strengths, and heat resistances for both high and low gloss applications manufactured by injection molding, sheet or profile extrusion, and thermoforming.
MANUM 9030 ABS resin is one of the highest gloss resins, possessing the highest impact strength and lowest melt flow rate in the 9000 series.

Applications

- Floor care equipment

Physical Properties[1]	Test Method	English Units	SI Units
Specific Gravity	ASTM D 792	1.04	1.04
Melt Flow Rate	ASTM D 1238		
230˚C/3.8kg		3.2 g/10 min	3.2 g/10 min
Mold Shrinkage, Flow	ASTM D 955	0.004-0.007 in/in	0.004-0.007 mm/mm
Mechanical Properties[2]			
Tensile Strength at Yield	ASTM D 638	5700 psi	39 MPa
Tensile Modulus, 1 mm/min	ASTM D 638	307,000 psi	2120 MPa
Tensile Strength at Break	ASTM D 638	4,500 psi	31 MPa
Tensile Elongation at Yield	ASTM D 638	3.0 %	3.0 %
Tensile Elongation at Break	ASTM D 638	40 %	40 %
Flexural Strength, 3-points, 2 mm/min	ASTM D 790	10,000 psi	69 MPa
Flexural Modulus, 3-points, 2 mm/min	ASTM D 790	340,000 psi	2340 MPa
Notched Izod Impact	ASTM D 256		
73˚F (23˚C)		7.5 ft-lb/in	400 J/m
-28˚F (-18˚C)		3.3 ft-lb/in	176 J/m
Instrumented Dart Impact	ASTM D 3763		
Peak energy @ 73˚F (23˚C)		260 in-lb	29 J
Peak energy @ 0˚F (-18˚C)		230 in-lb	26 J
Total energy @ 73˚F (23˚C)		380 in-lb	43 J
Total energy @ 0˚F (-18˚C)		270 in-lb	31 J
Thermal Properties			
Deflection Temperature Under Load	ASTM D 648		
66 psi (0.45 MPa), unannealed		200˚F	93˚C
264 psi (1.8 MPa), unannealed		175˚F	79˚C
Vicat Softening Point	ASTM D 1525		
120˚C/hr, 10N		230˚F	110˚C
Flammability[3]			
UL Classification at			
0.06 in (1.47 mm)	UL94	HB	HB
Optical Properties			
Gardner Gloss, 60˚	ASTM D 523	95 %	95 %