Dow MAGNUM® 9450P ABS, High Gloss

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 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. The 9000 series products offer typical Izod impact strength values from 210 to 400 J/m and melt flow rates ranging from 2.5 to 7.0 g/10min. The gloss values are typically greater than 95% on the 60. Gardner scale for the highest gloss resins and greater than 90% for those products having a broader range of gloss. MAGNUM 9450P ABS resin is a high gloss, high flow, medium impact resin offering excellent aesthetics for painting and plating applications. Data provided by Dow Chemical.

PHYSICAL PROPERTIES	VALUES	COMMENTS	US / Other Units
Density, g/cc	1.04	ASTM Data	1.04 g/cc
Linear Mold Shrinkage, cm/cm	0.0055		0.0055 in/in
Melt Flow, g/10 min	7	230°C/3.8 kg. ASTM Data	7 g/10 min
Hardness, Rockwell R	107		107
Gloss, %	95	Gardner Gloss, 60°	95 %
MECHANICAL PROPERTIES	**VALUES**	**COMMENTS**	**US / Other Units**
Tensile Strength, Yield, MPa	42.7	ASTM Data	6,192 psi
Tensile Strength, Ultimate, MPa	34.5	ASTM Data	5,003 psi
Elongation %; break	45	ASTM Data	45 %
Elongation %; yield	2.4	ISO Data	2.4 %
Modulus of Elasticity, GPa	2.21	In tension; ASTM Data.	320 ksi
Impact Strength, Izod, J/cm	2.14	ASTM Data	4.0 ft-lb/in
Impact Strength, Charpy, J/cm²	1.9	J/cm²; ISO Data	9.0 ft-lb/in²
Impact, Unnotched Charpy, J/cm²	999	No Break; ISO Data	4,755 ft-lb/in²
Impact, Low Temp Notched Charpy, J/cm²	0.6	ISO Data	2.9 ft-lb/in²
Impact, Low Temp Unnotched Charpy, J/cm²	9	ISO Data	43 ft-lb/in²
Impact Test	45	J; Instrumented Dart Total Energy, 23°C	45
THERMAL PROPERTIES	**VALUES**	**COMMENTS**	**US / Other Units**
CTE, linear 20ºC, µm/m-°C	92	ISO Data parallel to flow	51 µin/in-°F
Deflection Temperature at 0.46 MPa, ºC	94	Unannealed; ASTM Data	201 °F
Deflection Temperature at 1.8 MPa, ºC	79	Unannealed; 106°C (223°F) annealed; ASTM Data	174 °F
Vicat Softening Point, ºC	108		226 °F
Maximum Service Temperature, Air, °C	79	Deflection temperature at 1.8 MPa	174 °F
Flammability, UL94 (5=V-0; 4=V-1; 3=V-2; 1=HB)	1 HB	UL94 HB at 1.47 mm.	1