

OPTIX MS-983 CLEAR

OPTIX MS-983 is a high molecular weight and high heat resistant general-purpose grade acrylic polymer designed for extrusion and injection molding. OPTIX MS-983 is ideal for applications where stiffer polymer melt is required, such as sheet extrusion, thicker section rods, or profiles. The high molecular weight also offers excellent craze resistance.

APPLICATIONS

Sheets and profiles

TYPICAL PROPERTIES*			
Property	Test Method	Units	Values
OPTICAL			
Luminous Transmittance	ASTM D1003	%	92.0
Haze	ASTM D1003	%	< 1.0
Refractive Index	ASTM D542	-	1.49
RHEOLOGICAL			
Melt Flow Rate (230°C/3.8kg)	ASTM D1238	g/10 min	2.2
MECHANICAL			
Tensile Strength	ASTM D638	psi (MPa)	10,500 (72)
Tensile Elongation	ASTM D638	%	4.6
Tensile Modulus of Elasticity	ASTM D638	psi (MPa)	450,000 (3,100)
Flexural Strength	ASTM D790	psi (MPa)	16,100 (111)
Flexural Modulus	ASTM D790	psi (MPa)	450,000 (3,100)
Impact Strength - Notched Izod (1/4")	ASTM D256	ft-lbf/in.(J/m)	0.35 (19)
Impact Strength - Falling Dart (GB, 1/8")	ASTM D5420	in.-lbf (J)	2.0 (0.23)
Rockwell Hardness (M Scale)	ASTM D785	-	92
THERMAL			
Vicat Softening Temperature (50N, 50°C/hr)	ASTM D1525	°F (°C)	214 (101)
Heat Deflection Temperature Under Load (264 psi)	ASTM D648	°F (°C)	205 (96)
Coefficient of Linear Thermal Expansion	ASTM D696	cm/(cm·°C)	6 × 10 ⁻⁵
Mold Shrinkage	ASTM D955	%	0.2 - 0.6
OTHER			
Specific Gravity	ASTM D792	-	1.19
Flammability Class	UL 94	-	HB
Relative Thermal Index	UL 746B	°C	90, fl
Water Absorption	ASTM D570	%	0.3
3-year Outdoor Weathering	SAE J576 (AMECA)	-	Listed
ASTM Classification	ASTM D788	-	0131V2

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.