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Topas® 8007X10

Cyclic Olefin Copolymer

Topas Advanced Polymers, Inc.

Product Description
Injection molding grade with superior transparency in the UV range. Range of application: applications which require high UV-transparency, e.g. diagnostic applications (DNA analytics) with micro titer plates or cuvettes.

General	
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.02	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	32.0	cm³/10min	ISO 1133
Water Absorption (Saturation, 23°C)	0.010	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2600	MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	63.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	4.5	%	ISO 527-2/1A/50
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	2.6	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	20	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			ISO 75-2/B
0.45 MPa, Unannealed	75.0	°C	
Glass Transition Temperature (DSC)	80.0	°C	DSC
Vicat Softening Temperature	80.0	°C	ISO 306/B50
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+16	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
1 kHz	2.35		
10 kHz	2.35		
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating - UL (1.60 mm)	HB		UL 94
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.530		ISO 489

Additional Information
Deg. of light transmission, ISO 13468-2: 91%

Injection	Nominal Value	Unit
Rear Temperature	190 to 220	°C
Middle Temperature	200 to 230	°C
Front Temperature	210 to 240	°C
Nozzle Temperature	220 to 250	°C
Processing (Melt) Temp	190 to 250	°C
Mold Temperature	40.0 to 70.0	°C
Injection Pressure	50.0 to 110	MPa
Injection Rate	Moderate-Fast	
Holding Pressure	30.0 to 60.0	MPa
Back Pressure	< 15.0	MPa
Screw Speed	50 to 200	rpm