



GELOY™ Resin XTPM307

Europe-Africa-Middle East: LIMITED USE

XTPM307 is a high heat resistant PC/ASA with improved processing stability over HRA150. Typical values measured on natural material.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	580	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	650	kgf/cm ²	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	540	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	630	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.8	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	>100	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	>100	%	ASTM D 638
Tensile Modulus, 5 mm/min	23200	kgf/cm ²	ASTM D 638
Tensile Stress, yield, 5 mm/min	53	MPa	ISO 527
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	58	MPa	ISO 527
Tensile Stress, break, 50 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.7	%	ISO 527
Tensile Strain, break, 5 mm/min	>100	%	ISO 527
Tensile Strain, yield, 50 mm/min	4.7	%	ISO 527
Tensile Strain, break, 50 mm/min	>100	%	ISO 527
Tensile Modulus, 1 mm/min	2350	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	84	MPa	ISO 178
Flexural Modulus, 2 mm/min	2210	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	65	cm-kgf/cm	ASTM D 256



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IMPACT			
Izod Impact, notched, 0°C	60	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -10°C	24	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -20°C	20	cm-kgf/cm	ASTM D 256
Multiaxial Impact	1223	cm-kgf	ISO 6603
Izod Impact, notched 80*10*4 +23°C	59	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	46	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	26	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	20	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	17	kJ/m ²	ISO 180/1A
THERMAL			
CTE, 23°C to 60°C, flow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, approximate maximum	105	°C	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	138	°C	ISO 306
Vicat Softening Temp, Rate B/50	116	°C	ISO 306
Vicat Softening Temp, Rate B/120	118	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	125	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	103	°C	ISO 75/Ae
PHYSICAL			
Density	1.15	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.6	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 220°C/10.0 kg	5	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 240°C/5.0 kg	6	cm ³ /10 min	ISO 1133



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PHYSICAL			
Melt Volume Rate, MVR at 260°C/5.0 kg	16	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/10 kg	50	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	4.2E+15	Ohm-cm	ASTM D 257
Surface Resistivity	1.5E+16	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.6 mm	27.5	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.0153	-	ASTM D 150



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	100 - 110	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	260 - 290	°C
Nozzle Temperature	240 - 280	°C
Front - Zone 3 Temperature	250 - 290	°C
Middle - Zone 2 Temperature	250 - 290	°C
Rear - Zone 1 Temperature	230 - 260	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	60 - 90	°C