



## 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 <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	580	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	650	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	540	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	630	kgf/cm <sup>2</sup>	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 <sup>2</sup>	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
<b>IMPACT</b>			
Izod Impact, notched, 23°C	65	cm-kgf/cm	ASTM D 256

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.  
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA





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<b>IMPACT</b>			
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/m²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	46	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	26	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	20	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	17	kJ/m²	ISO 180/1A
<b>THERMAL</b>			
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
<b>PHYSICAL</b>			
Density	1.15	g/cm³	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	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 240°C/5.0 kg	6	cm³/10 min	ISO 1133

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Source GMD, last updated:





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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>PHYSICAL</b>			
Melt Volume Rate, MVR at 260°C/5.0 kg	16	cm <sup>3</sup> /10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/10 kg	50	cm <sup>3</sup> /10 min	ISO 1133
<b>ELECTRICAL</b>			
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
<b>Injection Molding</b>		
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

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