SABIC Innovative Plastics™

Geloy* Resin XTPM307

Europe-Africa-Middle East: COMMERCIAL

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

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	57	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	64	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	62	MPa	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	2280	MPa	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	Value	Unit	Standard
Izod Impact, notched, 23°C	640	J/m	ASTM D 256
Izod Impact, notched, 0°C	595	J/m	ASTM D 256
Izod Impact, notched, -10°C	245	J/m	ASTM D 256
Izod Impact, notched, -20°C	205	J/m	ASTM D 256
Multiaxial Impact	120	J	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
THERMAL	Value	Unit	Standard
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	Value	Unit	Standard
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
Melt Volume Rate, MVR at 260°C/5.0 kg	16	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/10 kg	50	cm³/10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard
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

Source GMD, last updated:01/05/2005

Processing

Parameter Injection Molding	Value	Unit
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

Source GMD, last updated:01/05/2005

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(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.

* Geloy is a trademark of the SABIC Innovative Plastics Company