

Cycolac* Resin GPT4600

Americas: LIMITED USE

Automotive. Motorcycle fairings. Thin wall applications requiring good impact strength.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	35	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	1790	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	55	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1790	MPa	ASTM D 790
Hardness, Rockwell R	94	-	ASTM D 785
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	331	J/m	ASTM D 256
Izod Impact, notched, -30°C	160	J/m	ASTM D 256
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	78	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	83	°C	ASTM D 648
CTE, -40°C to 95°C, flow	1.04E-04	1/°C	ASTM E 831
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.02	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 230°C/3.8 kgf	4.5	g/10 min	ASTM D 1238

Source GMD, last updated:12/29/1999

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	90 - 95	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.01	%
Melt Temperature	230 - 275	°C
Nozzle Temperature	230 - 275	°C
Front - Zone 3 Temperature	225 - 240	°C
Middle - Zone 2 Temperature	210 - 220	°C
Rear - Zone 1 Temperature	190 - 200	°C
Mold Temperature	50 - 65	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	30 - 60	rpm
Shot to Cylinder Size	50 - 70	%
Vent Depth	0.038 - 0.051	mm

Source GMD, last updated:12/29/1999

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.

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