



## Cycolac\* Resin GHT4400

### Americas: COMMERCIAL

AUTOMOTIVE: High heat resistance. High impact with excellent processability.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	UNIT	STANDARD
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	450	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Modulus, 5 mm/min	22400	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	770	kgf/cm <sup>2</sup>	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	23900	kgf/cm <sup>2</sup>	ASTM D 790
Hardness, Rockwell R	109	-	ASTM D 785
<b>IMPACT</b>			
Izod Impact, notched, 23°C	32	cm-kgf/cm	ASTM D 256
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	97	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	91	°C	ASTM D 648
<b>PHYSICAL</b>			
Specific Gravity	1.04	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	GE Method
Melt Flow Rate, 220°C/10.0 kgf	11.5	g/10 min	ASTM D 1238
Melt Viscosity, 260°C, 1000 sec-1	1900	poise	ASTM D 3825

1) Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity.  
All properties, except the melt volume rate are measured on injection moulded samples.  
All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose. 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) Own measurement according to UL.



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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
<b>Injection Molding</b>		
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	230 - 255	°C
Middle - Zone 2 Temperature	210 - 225	°C
Rear - Zone 1 Temperature	195 - 210	°C
Mold Temperature	50 - 80	°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

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