CYCOLOY™ RESIN MC8800

REGION ASIA

DESCRIPTION

PC/ABS, high heat, high impact, low CTE.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	55	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	58	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	120	%	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	96	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2960	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	427	J/m	ASTM D 256
Izod Impact, notched, -30°C	106	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	56	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	50	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	117	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	126	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.66E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.1E-05	1/°C	ASTM E 831
Thermal Conductivity	0.2	W/m-°C	ASTM C177
PHYSICAL			
Specific Gravity	1.22	-	ASTM D 792
Water Absorption, 24 hours	0.1	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.4	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 230°C/3.8 kg	1.4	g/10 min	ASTM D 1238
Melt Flow Rate, 260°C/5.0 kgf	10	g/10 min	ASTM D 1238
INJECTION MOLDING			
Drying Temperature	110 – 120	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	270 – 300	°C	
Front - Zone 3 Temperature	270 – 300	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Middle - Zone 2 Temperature	265 – 290	°C	
Rear - Zone 1 Temperature	260 – 270	°C	
Mold Temperature	75 – 100	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 0.076	mm	

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