

# CYCOLOY™ RESIN LG9000

REGION ASIA

## DESCRIPTION

PC/ABS low gloss.

## TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	54	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	75	%	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	84	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MPa	ASTM D 790
Hardness, Rockwell R	118	-	ASTM D 785
<b>IMPACT</b>			
Izod Impact, notched, 23°C	534	J/m	ASTM D 256
Izod Impact, notched, -30°C	320	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	40	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	33	J	ASTM D 3763
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	129	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	123	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	107	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	129	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	110	°C	ASTM D 648
CTE, -20°C to 150°C, flow	7.2E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	7.2E-05	1/°C	ASTM E 831
Thermal Conductivity	0.2	W/m-°C	ASTM C177
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
<b>PHYSICAL</b>			
Specific Gravity	1.13	-	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 (5)	0.5 – 0.7	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 3.2 mm (5)	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 260°C/5.0 kgf	17	g/10 min	ASTM D 1238
<b>OPTICAL</b>			
Gloss, untextured, 60 degrees	30	-	ASTM D 523
<b>ELECTRICAL</b>			
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	2	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94HB Flame Class Rating (3)	1.49	mm	UL 94
<b>INJECTION MOLDING</b>			
Drying Temperature	105 – 110	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	275 – 300	°C	
Nozzle Temperature	275 – 300	°C	
Front - Zone 3 Temperature	260 – 300	°C	
Middle - Zone 2 Temperature	255 – 295	°C	
Rear - Zone 1 Temperature	250 – 290	°C	
Mold Temperature	60 – 90	°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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