CYCOLAC™ RESIN BDT5510

REGION AMERICAS

DESCRIPTION

Automotive. High heat resistance, low gloss, color concentratable for interior applications. Natural only.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	2270	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	81	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2460	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	43	MPa	ISO 527
Tensile Modulus, 1 mm/min	2930	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	67	MPa	ISO 178
Flexural Modulus, 2 mm/min	2030	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	293	J/m	ASTM D 256
Falling Dart Impact (D 3029), 23°C	35	J	ASTM D 3029
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	13	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	92	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	81	°C	ASTM D 648
CTE, -40°C to 60°C, flow	1.35E-04	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	98	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	95	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	83	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.05	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Melt Flow Rate, 230°C/3.8 kg	6	g/10 min	ASTM D 1238
Melt Viscosity, 260°C, 1000 sec-1	1630	Poise	ASTM D 3825
Spiral Flow,260°C,10 ips,3.175 X 1524 mm	736.6	mm	-
Melt Flow Rate, 220°C/10.0 kg	14	g/10 min	ISO 1133
OPTICAL			
Gloss, untextured, 60 degrees	25	-	ASTM D 523
FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-101094442	-	-
UL Recognized, 94HB Flame Class Rating	1.52	mm	UL 94

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
Drying Temperature	90 – 95	°C	
Drying Time	2 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	230 – 275	°C	
Nozzle Temperature	230 – 275	°C	
Front - Zone 3 Temperature	220 – 255	°C	
Middle - Zone 2 Temperature	210 – 250	°C	
Rear - Zone 1 Temperature	195 – 240	°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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