

# CYCOLACT™ RESIN BDT5510

REGION AMERICAS

## DESCRIPTION

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

## TYPICAL PROPERTY VALUES

Revision 20220721

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D638
Tensile Modulus, 5 mm/min	2270	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	81	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2460	MPa	ASTM D790
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
<b>IMPACT</b>			
Izod Impact, notched, 23°C	293	J/m	ASTM D256
Falling Dart Impact (D 3029), 23°C	35	J	ASTM D3029
Izod Impact, notched 80°10'4 +23°C	12	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80°10'4 -30°C	7	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10'4 sp=62mm	13	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80°10'4 sp=62mm	7	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	92	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	81	°C	ASTM D648
CTE, -40°C to 60°C, flow	1.35E-04	1/°C	ASTM E831
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
<b>PHYSICAL</b>			
Specific Gravity	1.05	-	ASTM D792
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 D1238
Melt Viscosity, 260°C, 1000 sec-1	1630	Poise	ASTM D3825
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
<b>OPTICAL</b>			
Gloss, untextured, 60 degrees	25	-	ASTM D523
<b>FLAME CHARACTERISTICS</b>			
UL Yellow Card Link	<a href="#">E121562-101094442</a>	-	-
UL Recognized, 94HB Flame Class Rating	1.52	mm	UL 94
<b>INJECTION MOLDING</b>			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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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