



CYCOLAC™ Resin BDT5510

Americas: COMMERCIAL

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	540	kgf/cm ²	ASTM D 638
Tensile Modulus, 5 mm/min	23100	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	820	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	25000	kgf/cm ²	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	29	cm-kgf/cm	ASTM D 256
Falling Dart Impact (D 3029), 23°C	356	cm-kgf	ASTM D 3029
Izod Impact, notched 80*10*4 +23°C	12	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	13	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m ²	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





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PHYSICAL			
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 230°C/3.8 kgf	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 Recognized, 94HB Flame Class Rating (3)	1.52	mm	UL 94





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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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	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

