

# SABIC CYCOLOY™ PC/ABS XCM840物性表

属性	典型值	UNITS	测试手段
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	56	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D638
Tensile Modulus, 5 mm/min	4300	MPa	ASTM D638
Tensile Stress, yield, 5 mm/min	56	MPa	ISO 527
Tensile Stress, break, 5 mm/min	47	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4	%	ISO 527
Tensile Strain, break, 5 mm/min	50	%	ISO 527
Tensile Modulus, 1 mm/min	4300	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	100	MPa	ISO 178
Flexural Modulus, 2 mm/min	4000	MPa	ISO 178
<b>IMPACT</b>			
Instrumented Dart Impact Total Energy, 23°C	60	J	ASTM D3763
Izod Impact, notched 80*10*3 +23°C	15	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	8	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	37	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	10	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.6E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.1E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	4.6E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.1E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	138	°C	ISO 306

HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	120	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.27	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.5-0.7	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5-0.7	%	SABIC method
Density	1.27	g/cm <sup>3</sup>	ISO 1183
Melt Volume Rate, MVR at 260°C/5.0 kg	10	cm <sup>3</sup> /10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/5.0 kg	12	cm <sup>3</sup> /10 min	ISO 1133
<b>Injection Molding</b>			
Drying Temperature	120-125	°C	
Drying Time	4-6	Hrs	
Maximum Moisture Content	0.01	%	
Melt Temperature	270-300	°C	
Nozzle Temperature	260-290	°C	
Front - Zone 3 Temperature	270-300	°C	
Middle - Zone 2 Temperature	265-290	°C	
Rear - Zone 1 Temperature	260-270	°C	
Mold Temperature	60-100	°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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