SABIC CYCOLAC™ ABS DL100LG物性表

属性	典型值	UNITS	测试手段
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	51	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	38	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	47	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	40	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	12	%	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	85	%	ASTM D638
Tensile Modulus, 50 mm/min	2240	MPa	ASTM D638
Tensile Stress, yield, 5 mm/min	47	MPa	ISO 527
Tensile Stress, break, 5 mm/min	36	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	51	MPa	ISO 527
Tensile Stress, break, 50 mm/min	39	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4	%	ISO 527
Tensile Strain, break, 5 mm/min	50	%	ISO 527
Tensile Strain, yield, 50 mm/min	4	%	ISO 527
Tensile Strain, break, 50 mm/min	12	%	ISO 527
Tensile Modulus, 1 mm/min	2200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	74	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
Ball Indentation Hardness, H358/30	80	MPa	ISO 2039-1
IMPACT			
Izod Impact, notched, 23°C	380	J/m	ASTM D256
Izod Impact, notched, -30°C	115	J/m	ASTM D256
Izod Impact, notched 80*10*3 +23°C	45	kJ/m²	ISO 180/1A

Izod Impact, notched 80*10*3 -30°C	19	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 +23°C	28	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	22	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	11	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	85	°C	ASTM D648
CTE, -40°C to 40°C, flow	8.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.3E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate A/50	118	°C	ISO 306
Vicat Softening Temp, Rate A/120	120	°C	ISO 306
Vicat Softening Temp, Rate B/50	105	°C	ISO 306
Vicat Softening Temp, Rate B/120	107	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	103	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Af
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.5-0.7	%	SABIC method
Melt Flow Rate, 220°C/10.0 kgf	10	g/10 min	ASTM D1238
Density	1.08	g/cm³	ISO 1183
Melt Volume Rate, MVR at 220°C/10.0 kg	10	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/5.0 kg	12	cm³/10 min	ISO 1133
Injection Molding			
Drying Temperature	90 - 100	°C	
Drying Time	2 - 4	Hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	250 - 280	°C	
Nozzle Temperature	245 - 275	°C	
Front - Zone 3 Temperature	250 - 280	°C	

Middle - Zone 2 Temperature	250 - 280	°C
Rear - Zone 1 Temperature	230 - 260	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	40 - 80	°C