

LEXAN™ XHT5141 resin

Polycarbonate
SABIC Innovative Plastics Europe

Message:
XHT5141 is a high flow, high heat polycarbonate copolymer with a haze onset of 185C. It is available in a range of opaque colors.

General Information			
Features	Copolymer		
	High Flow		
	High Heat Resistance		
RoHS Compliance	RoHS Compliant		
Appearance	Colors Available		
	Opaque		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	16	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (330°C/2.16 kg)	15.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.60 to 0.95	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.25	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2600	MPa	ASTM D638
--	2500	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	80.0	MPa	ASTM D638
Yield	80.0	MPa	ISO 527-2/50
Break ³	65.0	MPa	ASTM D638
Break	65.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	7.5	%	ASTM D638
Yield	7.0	%	ISO 527-2/50
Break ⁵	45	%	ASTM D638
Break	45	%	ISO 527-2/50
Flexural Modulus			

50.0 mm Span ⁶	2650	MPa	ASTM D790
-- ⁷	2550	MPa	ISO 178
Flexural Stress			
--	120	MPa	ISO 178
Yield, 50.0 mm Span ⁸	125	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	8.0	kJ/m ²	
23°C	11	kJ/m ²	
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	35	J/m	ASTM D256
23°C	80	J/m	ASTM D256
-30°C ¹¹	8.0	kJ/m ²	ISO 180/1A
23°C ¹²	11	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹³			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Instrumented Dart Impact (23°C, Total Energy)	65.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	185	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁴	183	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	174	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁵	170	°C	ISO 75-2/Af
Vicat Softening Temperature	190	°C	ASTM D1525, ISO 306/B50, ISO 306/B120 ¹⁶
Ball Pressure Test			
125°C	Pass		
165°C	Pass		
CLTE			
Flow : -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	7.0E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	6.5E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity (25°C)	0.20	W/m/K	ASTM C177
Additional Information	Nominal Value	Unit	Test Method
Metallized Haze Onset	185	°C	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	135	°C	

Drying Time	5.0 to 6.0	hr
Drying Time, Maximum	48	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 60	%
Rear Temperature	300 to 325	°C
Middle Temperature	310 to 335	°C
Front Temperature	320 to 345	°C
Nozzle Temperature	315 to 340	°C
Processing (Melt) Temp	320 to 345	°C
Mold Temperature	110 to 140	°C
Back Pressure	0.300 to 0.700	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.025 to 0.076	mm

NOTE

1.	5.0 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*3 sp=62mm
10.	80*10*3 sp=62mm
11.	80*10*3
12.	80*10*3
13.	80*10*3
14.	80*10*4 mm
15.	80*10*4 mm
16.	Rate B (120°C/h), Loading 2 (50 N)

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