

LEXAN™ XHT4143 resin

Polycarbonate
SABIC Innovative Plastics

Message:

XHT4143 is a high flow, UV stabilized, high heat polycarbonate copolymer blend with an HDT/Af of 162C. It is available in a range of opaque and limited transparent colors.

General Information			
UL YellowCard	E207780-100321031		
Additive	UV stabilizer		
Features	Copolymer		
	High liquidity		
	Heat resistance, high		
Appearance	Opacity		
	Available colors		
	Clear/transparent		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm ³	ASTM D792
--	1.21	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (330°C/2.16 kg)	25	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (330°C/2.16 kg)	24.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.60 - 0.95	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.33	%	ISO 62
Equilibrium, 23°C, 50% RH	0.25	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2730	MPa	ASTM D638
--	2750	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	77.0	MPa	ASTM D638
Yield	78.0	MPa	ISO 527-2/50
Fracture ³	69.0	MPa	ASTM D638
Fracture	67.0	MPa	ISO 527-2/50
Tensile Elongation			

Yield ⁴	7.0	%	ASTM D638
Yield	7.0	%	ISO 527-2/50
Fracture ⁵	50	%	ASTM D638
Fracture	50	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2600	MPa	ASTM D790
-- ⁷	2600	MPa	ISO 178
Flexural Stress			
--	80.0	MPa	ISO 178
Yield, 50.0mm span ⁸	120	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	9.0	kJ/m ²	ISO 179/1eA
23°C	11	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact			
-30°C	76	J/m	ASTM D256
23°C	93	J/m	ASTM D256
-30°C ¹¹	8.0	kJ/m ²	ISO 180/1A
23°C ¹²	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹³			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	72.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	174	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ¹⁴	173	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	165	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹⁵	162	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	183	°C	ASTM D1525, ISO 306/B50 ¹¹ ¹⁶
--	181	°C	ISO 306/B120
Ball Pressure Test (165°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index			IEC 60695-2-12

2.00 mm	850	°C	IEC 60695-2-12
2.50 mm	960	°C	IEC 60695-2-12
Injection	Nominal Value	Unit	
Drying Temperature	135	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	280 - 310	°C	
Middle Temperature	290 - 310	°C	
Front Temperature	300 - 315	°C	
Nozzle Temperature	295 - 310	°C	
Processing (Melt) Temp	300 - 315	°C	
Mold Temperature	95.0 - 130	°C	
Back Pressure	0.300 - 0.700	MPa	
Screw Speed	40 - 90	rpm	
Vent Depth	0.025 - 0.080	mm	

NOTE

1. 5.0 mm/min
2. Type 1, 50mm/min
3. Type 1, 50mm/min
4. Type 1, 50mm/min
5. Type 1, 50mm/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. 标准 B (120°C/h), 载荷2 (50N)

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