LEXAN™ XHT4143T resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

XHT4143 is a high flow, UV stabilized, high heat polycarbonate copolymer blend with an HDT/Af of 162C.

General Information			
Additive	UV Stabilizer		
Features	Copolymer High Flow High Heat Resistance		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.20	g/cm³	ASTM D792
--	1.21	g/cm³	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	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.60 to 0.95	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.33	%	
Equilibrium, 23°C, 50% RH	0.25	%	
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
Break [3]	69.0	MPa	ASTM D638
Break	67.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	7.0	%	ASTM D638
Yield	7.0	%	ISO 527-2/50
Break [5]	50	%	ASTM D638
Break	50	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2600	MPa	ASTM D790

-- [7]	2600	MPa	ISO 178
Flexural Stress			
--	80.0	MPa	ISO 178
Yield, 50.0 mm 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/m²	
23°C	11	kJ/m²	
Charpy Unnotched Impact Strength [10]			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	76	J/m	ASTM D256
23°C	93	J/m	ASTM D256
-30°C [11]	8.0	kJ/m²	ISO 180/1A
23°C [12]	10	kJ/m²	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)	72.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	174	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span [14]	173	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	165	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [15]	162	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	183	°C	ASTM D1525, ISO 306/B50 10 [16]
--	181	°C	ISO 306/B120
Ball Pressure Test (165°C)	Pass		IEC 60695-10-2
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	6.0E-5	cm/cm/°C	
Transverse : -40 to 40°C	6.0E-5	cm/cm/°C	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Glow Wire Flammability Index			IEC 60695-2-12
2.00 mm	850	°C	
2.50 mm	960	°C	
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.605		ASTM D542
Transmittance (2540 µm)	86.0	%	ASTM D1003
Haze (2540 µm)	0.50	%	ASTM D1003

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

Recommended distributors for this material

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