

ULTEM™ LTX300A resin

Polyether Imide

SABIC Innovative Plastics

Message:

High flow Polyetherimide blend with low toxicity, smoke and flame evolution. ECO Compliant, UL94 V0 listing in recognized colors.

General Information			
UL YellowCard	E121562-221074		
Features	ECO Compliant		
	High Flow		
	Low Smoke Emission		
	Low Toxicity		
Agency Ratings	EU Eco		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (295°C/6.6 kg)	2.4	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (340°C/5.0 kg)	15.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Flow ¹	0.60 to 0.80	%	
Flow : 3.20 mm	0.50 to 0.70	%	
Across Flow : 3.20 mm	0.50 to 0.70	%	
Water Absorption			ISO 62
Saturation, 23°C	1.3	%	
Equilibrium, 23°C, 50% RH	0.70	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	127	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	3310	MPa	ASTM D638
--	3200	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	97.0	MPa	ASTM D638
Yield	90.0	MPa	ISO 527-2/5
Break ⁴	85.0	MPa	ASTM D638
Break	75.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁵	7.0	%	ASTM D638

Yield	6.0	%	ISO 527-2/5
Break ⁶	30	%	ASTM D638
Break	25	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁷	3240	MPa	ASTM D790
-- ⁸	3200	MPa	ISO 178
Flexural Stress			
--	130	MPa	ISO 178
Yield, 50.0 mm Span ⁹	145	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	15.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹⁰			ISO 179/1eA
-30°C	6.0	kJ/m ²	
23°C	7.0	kJ/m ²	
Charpy Unnotched Impact Strength ¹¹			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			
23°C	69	J/m	ASTM D256
-30°C ¹²	5.0	kJ/m ²	ISO 180/1A
23°C ¹³	7.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	2100	J/m	ASTM D4812
-30°C ¹⁴	No Break		ISO 180/1U
23°C ¹⁵	No Break		ISO 180/1U
Reverse Notch Izod Impact (3.20 mm)	2100	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	40.0	J	ASTM D3763
Gardner Impact (23°C)	35.0	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	201	°C	ASTM D648
0.45 MPa, Unannealed, 6.40 mm	204	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span ¹⁶	200	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	187	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	189	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹⁷	185	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	210	°C	ASTM D1525, ISO 306/A50 12 ¹⁸
--	200	°C	ISO 306/B50, ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2

CLTE			
Flow : -40 to 150°C	5.0E-5	cm/cm/°C	ASTM E831
Flow : 23 to 150°C	5.0E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 150°C	5.0E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 150°C	5.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.26	W/m/K	ISO 8302
Flammability	Nominal Value		Test Method
Flame Rating (0.750 mm, Testing by SABIC)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	135	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	10	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	338 to 360	°C	
Middle Temperature	343 to 366	°C	
Front Temperature	349 to 371	°C	
Nozzle Temperature	349 to 371	°C	
Processing (Melt) Temp	349 to 371	°C	
Mold Temperature	135 to 163	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	Tensile Bar		
2.	5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	Type I, 5.0 mm/min		
6.	Type I, 5.0 mm/min		
7.	1.3 mm/min		
8.	2.0 mm/min		
9.	1.3 mm/min		
10.	80*10*4 sp=62mm		
11.	80*10*4 sp=62mm		
12.	80*10*4		
13.	80*10*4		
14.	80*10*4		
15.	80*10*4		
16.	120*10*4 mm		
17.	120*10*4 mm		
18.	Rate B (120°C/h), Loading 2 (50 N)		

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