

ULTEM™ ATX3562R resin

Polyether Imide + PCE
SABIC Innovative Plastics

Message:
50% Glass fiber and mineral filled, high flow Polyetherimide blend with internal mold release and enhanced dimensional stability. RoHS compliant.

General Information			
Filler / Reinforcement	Glass \mineral, 50% filler by weight		
Additive	demoulding		
Features	Good dimensional stability		
	High liquidity		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.69	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	20	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (360°C/5.0 kg)	20.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.20 - 0.30	%	Internal method
Transverse flow: 3.20mm	0.30 - 0.50	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.10	%	ISO 62
Equilibrium, 23°C, 50% RH	0.040	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	14900	MPa	ASTM D638
--	14700	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	125	MPa	ASTM D638
Yield	121	MPa	ISO 527-2/5
Fracture ³	125	MPa	ASTM D638
Fracture	121	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	2.5	%	ASTM D638
Yield	1.4	%	ISO 527-2/5
Fracture ⁵	2.5	%	ASTM D638
Fracture	1.4	%	ISO 527-2/5
Flexural Modulus			

50.0mm span ⁶	12900	MPa	ASTM D790
-- ⁷	13600	MPa	ISO 178
Flexural Stress			
--	172	MPa	ISO 178
Yield, 50.0mm span ⁸	180	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	4.8	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	50	J/m	ASTM D256
23°C	50	J/m	ASTM D256
-30°C ¹⁰	5.4	kJ/m ²	ISO 180/1A
23°C ¹¹	5.6	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹² (23°C)	5.6	kJ/m ²	ISO 180/1U
Reverse Notch Izod Impact (3.20 mm)	110	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	12.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, unannealed, 64.0mm span ¹³	195	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	183	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹⁴	182	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	184	°C	ASTM D1525 ¹⁵
--	187	°C	ISO 306/B50
--	195	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 150°C	1.6E-5	cm/cm/°C	ASTM E831
Flow: 23 to 150°C	1.6E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 150°C	3.8E-5	cm/cm/°C	ASTM E831
Horizontal: 23 to 150°C	3.8E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.1E+15	ohms	ASTM D257
Volume Resistivity	6.0E+15	ohms · cm	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	135	°C	
Drying Time	4.0 - 6.0	hr	
Drying Time, Maximum	10	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	338 - 360	°C	
Middle Temperature	343 - 366	°C	

Front Temperature	349 - 371	°C
Nozzle Temperature	349 - 371	°C
Processing (Melt) Temp	349 - 371	°C
Mold Temperature	135 - 163	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE

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

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

