

ULTEM™ 4002 resin

Polyether Imide

SABIC Innovative Plastics

Message:

PTFE filled, standard flow Polyetherimide (Tg 217C). ECO Conforming, UL 94 V0 and 5VA listing in recognized colors.

General Information			
UL YellowCard	E121562-221111		
Additive	PTFE Lubricant		
Features	ECO Compliant		
Agency Ratings	EU Eco		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.33	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	9.5	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (360°C/5.0 kg)	13.0	cm ³ /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	1.1	%	
Equilibrium, 23°C, 50% RH	0.60	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	3460	MPa	ASTM D638
--	3300	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	105	MPa	ASTM D638
Yield	100	MPa	ISO 527-2/50
Break ⁴	85.0	MPa	ASTM D638
Break	80.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁵	5.0	%	ASTM D638
Yield	6.0	%	ISO 527-2/50
Break ⁶	40	%	ASTM D638
Break	25	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁷	3550	MPa	ASTM D790

-- ⁸	3100	MPa	ISO 178
Flexural Stress			
--	130	MPa	ISO 178
Yield, 50.0 mm Span ⁹	155	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹⁰ (23°C)	11	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	120	J/m	ASTM D256
23°C	120	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
Instrumented Dart Impact (23°C, Total Energy)	380	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	197	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	200	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹³	190	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	219	°C	ASTM D1525 ¹⁴
--	215	°C	ISO 306/B50
--	210	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 150°C	3.9E-5	cm/cm/°C	ASTM E831
Flow : 23 to 150°C	3.9E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 150°C	4.0E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 150°C	4.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (0.400 mm)	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
12.	80*10*4
13.	120*10*4 mm
14.	Rate B (120°C/h), Loading 2 (50 N)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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

