

ULTEM™ PW2300 resin

Polyether Imide

SABIC Innovative Plastics Europe

Message:

ULTEM PW2300 resin is an amorphous, opaque, 30% glass fiber reinforced polyetherimide (PEI) plastic offering a glass transition temperature (Tg) of 217°C. This inherently flame retardant resin is KTW, WRAS, ACS, NSF-61 and W270 certified and is US FDA and European Food Contact approved. ULTEM PW2300 resin offers specific colors designed and certified for use in potable water applications.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	Amorphous		
	Flame Retardant		
	Food Contact Acceptable		
Uses	Potable Water Applications		
Agency Ratings	ACS Unspecified Rating		
	DVGW W270		
	EU Food Contact, Unspecified Rating		
	FDA Food Contact, Unspecified Rating		
	KTW Unspecified Rating		
	NSF 61		
	WRAS Unspecified Rating		
RoHS Compliance	RoHS Compliant		
Appearance	Opaque		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.51	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (360°C/5.0 kg)	6.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.20 to 0.40	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.90	%	
Equilibrium, 23°C, 50% RH	0.50	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	165	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9500	MPa	ISO 527-2/1
Tensile Stress (Break)	165	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus ²	8500	MPa	ISO 178

Flexural Stress	225	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	20.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	10	kJ/m ²	ISO 179/2C
Charpy Unnotched Impact Strength ³			ISO 179/1eU
-30°C	40	kJ/m ²	
23°C	40	kJ/m ²	
Unnotched Izod Impact Strength ⁴			ISO 180/1U
-30°C	40	kJ/m ²	
23°C	40	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, Unannealed, 100 mm Span	215	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	210	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	225	°C	ISO 306/A50
--	213	°C	ISO 306/B50
--	220	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 150°C	2.0E-5	cm/cm/°C	
Transverse : 23 to 150°C	6.0E-5	cm/cm/°C	
Thermal Conductivity	0.29	W/m/K	ISO 8302
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	48	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	80.0 to 120	°C	
Rear Temperature	350 to 400	°C	
Middle Temperature	360 to 410	°C	
Front Temperature	370 to 420	°C	
Nozzle Temperature	360 to 410	°C	
Processing (Melt) Temp	370 to 410	°C	
Mold Temperature	140 to 180	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*4 sp=62mm		
4.	80*10*4		

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