

Ultrason® S 2010 G4

Polysulfone

BASF Corporation

Product Description

Ultrason S 2010 G4 is a 20% glass reinforced, medium viscosity injection molding PSU grade with high rigidity and strength.

General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Filler / Reinforcement	• Glass Fiber Reinforcement, 20% Filler by Weight		
Additive	• Ignition Resistant		
Features	• Flame Retardant	• Good Impact Resistance	• High Strength
	• Good Flow	• High Rigidity	• Medium Viscosity
Uses	• Printed Circuit Boards	• Printer Parts	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	
Multi-Point Data	• Creep Modulus vs. Time (ISO 11403-1)	• Isothermal Stress vs. Strain (ISO 11403-1)	• Viscosity vs. Shear Rate (ISO 11403-2)
	• Isochronous Stress vs. Strain (ISO 11403-1)	• Secant Modulus vs. Strain (ISO 11403-1)	

Physical

	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.40	g/cm ³	ASTM D792
--	1380	kg/m ³	ISO 1183 ²
Melt volume-flow rate (360°C/10.0 kg)	40.0	cm ³ /10min	ISO 1133 ²
Molding Shrinkage			
Flow: 3.18 mm	0.40	%	ASTM D955
Across Flow	0.31	%	ISO 294-4
Flow	0.52	%	ISO 294-4
Water Absorption			
Saturation	0.60	%	ASTM D570
Saturation	0.70	%	ISO 62 ²
Equilibrium, 50% RH	0.10	%	ASTM D570
Equilibrium	0.20	%	ISO 62 ²
Viscosity number	63.0	cm ³ /g	ISO 307, 1157, 1628 ²

Mechanical

	Nominal Value	Unit	Test Method
Tensile modulus	6800	MPa	ISO 527-2 ²
Tensile Strength			
Break, 23°C	115	MPa	ASTM D638
Break	110	MPa	ISO 527-2 ²
Tensile Strain (Break)	2.2	%	ISO 527-2 ²
Tensile Creep Modulus			ISO 899-1 ²
1 hr	6400	MPa	
1000 hr	6000	MPa	
Flexural Modulus (23°C)	7300	MPa	ASTM D790

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如需要更多物性资料请查阅 www.kedisujiao.com

备注：以上原料物性数据由厂家发布,我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA ²
-30°C	7.00	kJ/m ²	
23°C	7.00	kJ/m ²	
Charpy impact strength			ISO 179/1eU ²
-30°C	45.0	kJ/m ²	
23°C	45.0	kJ/m ²	
Notched Izod Impact			
23°C	59.0	J/m	ASTM D256
-30°C	7.00	kJ/m ²	ISO 180/A
23°C	7.00	kJ/m ²	ISO 180/A
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 961/30)	170	MPa	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	186	°C	ASTM D648
1.8 MPa, Unannealed	183	°C	ASTM D648
1.8 MPa	183	°C	ISO 75-2 ²
Glass Transition Temperature ³	190	°C	ISO 11357-2 ²
CLTE - Flow			
140°C	0.000028	cm/cm/°C	DIN 53752
--	0.000026	cm/cm/°C	ISO 11359-2 ²
Service Temperature	< 180	°C	Internal Method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity			
-- ⁴	1.0E+14	ohms	ASTM D257
--	> 1.0E+14	ohms	IEC 60093 ²
Volume Resistivity			
1.50 mm	> 1.0E+13	ohm·cm	ASTM D257
--	> 1.0E+13	ohm·m	IEC 60093 ²
Relative Permittivity			IEC 60250 ²
100 Hz	3.50		
1 MHz	3.50		
Dissipation Factor			IEC 60250 ²
100 Hz	0.0010		
1 MHz	0.0060		
Comparative Tracking Index			
Solution A	125	V	IEC 60112
Solution B	125	V	IEC 60112
--	125		IEC 60112 ²
Electric strength	46	kV/mm	IEC 60243-1 ²
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.60 mm	V-1		
3.00 mm	V-0		
UL 746	Nominal Value	Unit	Test Method
RTI Str (1.50 mm)	160	°C	UL 746
RTI Imp (1.50 mm)	140	°C	UL 746
RTI Elec (1.50 mm)	160	°C	UL 746
Injection	Nominal Value	Unit	
Processing (Melt) Temp	350 to 390	°C	
Mold Temperature	130 to 180	°C	
Extrusion	Nominal Value	Unit	
Melt Temperature	350 to 390	°C	

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Notes

¹ Typical properties: these are not to be construed as specifications.

² Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

³ 10 °C/min

⁴ 1.5 mm

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