

Ultradur® S 4090 G6

Polybutylene Terephthalate + ASA

BASF Corporation

Product Description

Ultradur S 4090 G6 is a 30% glass reinforced PBT+ASA blend. It produces moldings with good surface finish, is resistant to chemicals and stress cracking, and has low shrinkage and warpage.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber Reinforcement, 30% Filler by Weight
Additive	• Lubricant
Features	• Good Chemical Resistance • Good Surface Finish • High ESCR (Stress Crack Resist.) • Low Shrinkage • Low Warpage • Lubricated
Uses	• Electrical Housing • Housings
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Creep Modulus vs. Time (ISO 11403-1) • Isochronous Stress vs. Strain (ISO 11403-1) • Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)

Physical

	Nominal Value	Unit	Test Method
Specific Gravity	--	1.47 g/cm ³	ASTM D792
--	--	1470 kg/m ³	ISO 1183 ²
Melt volume-flow rate (275°C/5.0 kg)	20.0	cm ³ /10min	ISO 1133 ²
Molding Shrinkage			
Flow: 3.18 mm	0.30	%	ASTM D955
Across Flow	0.29	%	ISO 294-4
Flow	0.75	%	ISO 294-4
Water Absorption			
Saturation	0.40	%	ASTM D570 ISO 62 ²
Equilibrium, 50% RH	0.20	%	ASTM D570
Equilibrium	0.20	%	ISO 62 ²
Viscosity Number	105	cm ³ /g	ISO 1628

Mechanical

	Nominal Value	Unit	Test Method
Tensile modulus	9700	MPa	ISO 527-2 ²
Tensile Strength			
Break, 23°C	125	MPa	ASTM D638
Break, -40°C	195	MPa	ISO 527-2
Break, 80°C	79.0	MPa	ISO 527-2
Break, 121°C	47.0	MPa	ISO 527-2
Break	125	MPa	ISO 527-2 ²
Tensile Elongation			
Break, 23°C	2.2	%	ASTM D638
Break	2.2	%	ISO 527-2 ²
Tensile Creep Modulus			ISO 899-1 ²
1 hr	7600	MPa	
1000 hr	6700	MPa	
Flexural Modulus			
23°C	8270	MPa	ASTM D790
23°C	8300	MPa	ISO 178
Flexural Strength (23°C)	194	MPa	ASTM D790

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

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 (23°C)	9.00	kJ/m ²	ISO 179/1eA ²
Charpy Unnotched Impact Strength			ISO 179
-30°C	50	kJ/m ²	
23°C	59	kJ/m ²	
Notched Izod Impact			ASTM D256
-40°C	69.0	J/m	
23°C	85.0	J/m	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	210	°C	ASTM D648
0.45 MPa	210	°C	ISO 75-2 ²
1.8 MPa, Unannealed	177	°C	ASTM D648
1.8 MPa	175	°C	ISO 75-2 ²
Melting Temperature	223	°C	ASTM D3418 ISO 3146
CLTE - Flow	0.000040	cm/cm/°C	ISO 11359-2

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity ³	1.0E+14	ohms	ASTM D257 IEC 60093 ²
Volume Resistivity			
1.50 mm	> 1.0E+13	ohm·cm	ASTM D257
--	> 1.0E+11	ohm·m	IEC 60093 ²
Relative Permittivity			IEC 60250 ²
100 Hz	3.80		
1 MHz	3.70		
Dissipation Factor			IEC 60250 ²
100 Hz	30		
1 MHz	180		
Comparative tracking index	500		IEC 60112 ²

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.50 mm)	HB		UL 94

UL 746	Nominal Value	Unit	Test Method
RTI Str (1.50 mm)	130	°C	UL 746
RTI Imp (1.50 mm)	90.0	°C	UL 746
RTI Elec (1.50 mm)	130	°C	UL 746

Injection	Nominal Value	Unit
Drying Temperature	100 to 120	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.040	%
Processing (Melt) Temp	250 to 270	°C
Mold Temperature	60.0 to 100	°C
Injection Rate	Fast	
Back Pressure	< 1.00	MPa

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 1.5 mm

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