

# Ultrason® S 2010 NAT

## Polysulfone

### BASF Corporation

Product Description			
Unreinforced, medium viscosity standard injection moulding grade. Abbreviated designation according to ISO 1043-1: PSU			
General			
Material Status	• Commercial: Active		
Availability	• Europe		
Features	• High Rigidity	• High Strength	• Medium Viscosity
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion	• Injection Molding
Physical	Nominal Value	Unit	Test Method
Density	1.23	g/cm <sup>3</sup>	ISO 1183
Apparent Density	0.70 to 0.80	g/cm <sup>3</sup>	ISO 60
Melt Volume-Flow Rate (MVR) (360°C/10.0 kg)	90.0	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.72	%	
Flow	0.68	%	
Water Absorption			ISO 62
24 hr, 23°C	0.80	%	
Equilibrium, 23°C, 50% RH	0.30	%	
Viscosity Number	63.0	cm <sup>3</sup> /g	ISO 307
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2600	MPa	ISO 527-2
Tensile Stress (Yield)	80.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	5.7	%	ISO 527-2/50
Tensile Creep Modulus <sup>2</sup> (1000 hr)	2500	MPa	ISO 899-1
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.5	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength			ISO 180/A
-30°C	6.00	kJ/m <sup>2</sup>	
23°C	5.00	kJ/m <sup>2</sup>	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	135	MPa	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed	167	°C	
Glass Transition Temperature	187	°C	ISO 11357-2
CLTE			
Flow: 23 to 80°C	0.000053	cm/cm/°C	ISO 11359-2
Transverse: 140°C	0.000060	cm/cm/°C	DIN 53752
Service Temperature (Short cycle operation)	< 180	°C	Internal Method
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength (160°C, 20000 hr)	-50	%	IEC 60216

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+14	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
100 Hz	3.10		
1 MHz	3.10		
Dissipation Factor			IEC 60250
100 Hz	0.00080		
1 MHz	0.0064		
Comparative Tracking Index			IEC 60112
Solution A	125	V	
Solution B	125	V	
Electric Strength <sup>3</sup>	40	kV/mm	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.60 mm	HB		
3.20 mm	V-2		
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.610		ISO 489
Transmittance	89.0	%	DIN 5036-3
Additional Information	Nominal Value	Unit	
Polymer Abbreviation	PSU		
Injection	Nominal Value	Unit	
Drying Temperature	130 to 150	°C	
Drying Time	> 4.0	hr	
Processing (Melt) Temp	330 to 390	°C	
Mold Temperature	120 to 160	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	130 to 150	°C	
Drying Time	> 4.0	hr	
Melt Temperature	330 to 390	°C	

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 23°C, Strain < 0.5%

<sup>3</sup> K20/K20

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