# Ultramid® B3WG10 BK00564

### Polyamide 6

#### **BASF** Corporation

#### Message:

This resin is a heat stabilized, 50% glass fiber reinforced PA6 injection molding compound offering excellent strength, stiffness, high temperature performance and dimensional stability. It is available in natural, black weather resistant and pigmented versions. Applications

Ultramid B3WG10 BK00564 is generally recommended for applications such as power tool housings, cattle ear taggers, luggage frames, fans and pressure regulator housings.

General Information						
Filler / Reinforcement	Glass Fiber,50% Filler by W	Glass Fiber,50% Filler by Weight				
Additive	Heat Stabilizer					
Features	Good Dimensional Stability					
	Heat Stabilized					
	High Stiffness					
	High Strength					
	Oil Resistant					
Uses	Housings					
	Luggage					
	Power/Other Tools					
Agang Dating						
Agency Ratings	EC 1907/2006 (REACH)					
RoHS Compliance	RoHS Compliant					
Appearance	Black					
	Colors Available					
	Natural Color					
Processing Method	Injection Molding					
Physical	Nominal Value	Unit	Test Method			
Density	1.56	g/cm³	ISO 1183			
Water Absorption			ISO 62			
Saturation, 23°C	4.8	%				
Equilibrium, 23°C, 50% RH	1.4	%				
Mechanical	Nominal Value	Unit	Test Method			
Tensile Modulus (23°C)	16700	MPa	ISO 527-2			
Tensile Stress (Break, 23°C)	225	MPa	ISO 527-2			
Tensile Strain (Break, 23°C)	2.5	%	ISO 527-2			
Flexural Modulus (23°C)	14500	MPa	ISO 178			
Flexural Stress (23°C)	345	MPa	ISO 178			

Charpy Notched Impact Strength (23°C)15kJ/m²ISCCharpy Unnotched Impact Strength (23°C)90kJ/m²ISCNotched Izod Impact Strength12kJ/m²ISC-40°C12kJ/m²ISC23°C15kJ/m²ISCThermalNominal ValueUnitTestHeat Deflection Temperature220°CISC1.8 MPa, Unannealed215°CISC				
Charpy Unnotched Impact Strength (23°C)90kJ/m²150-40°C12kJ/m²-40°C12kJ/m²23°C15kJ/m²ThermalNominal ValueUnitHeat Deflection Temperature220°C0.45 MPa, Unannealed215°C1.8 MPa, Unannealed215°CInjectionNominal ValueUnitDrying Temperature (DSC)220°CDrying Temperature80.0°CDrying Temperature2.0 to 4.0hrSuggested Max Moisture0.660%Processing (Melt) Temp80.0 to 95.0°C	ct I	Nominal Value	Unit	Test Method
Notched Izod Impact StrengthISC-40°C12kJ/m²23°C15kJ/m²ThermalNominal ValueUnitThermal220°C0.45 MPa, Unannealed215°C1.8 MPa, Unannealed220°C1.8 MPa, Unannealed220°C1.9 Melting Temperature (DSC)220°CDrying Temperature80.0°CDrying Time2.0 to 4.0hrSuggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	by Notched Impact Strength (23°C)	15	kJ/m²	ISO 179
-40°C12kJ/m²23°C15kJ/m²ThermalNominal ValueUnitTexHeat Deflection Temperature220°CISC0.45 MPa, Unannealed220°CISC1.8 MPa, Unannealed215°CISCMelting Temperature (DSC)220°CISCInjectionNominal ValueUnitISCDrying Temperature80.0°CISCDrying Time2.0 to 4.0hrISCSuggested Max Moisture0.660%ISCProcessing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	by Unnotched Impact Strength (23°C)	90	kJ/m²	ISO 179
23°C 15 kJ/m²   Themal Nominal Value Unit Termal   Heat Deflection Temperature 220 °C ISC   0.45 MPa, Unannealed 220 °C ISC   1.8 MPa, Unannealed 215 °C ISC   Injection Nominal Value Unit ISC   Injection Nominal Value Unit ISC   Drying Temperature 80.0 °C ISC   Suggested Max Moisture 0.060 % ISC   Molt Temperature 280 to 305 °C ISC   Molt Temperature 80.0 to 95.0 °C ISC	ned Izod Impact Strength			ISO 180
ThermalNominal ValueUnitTermalHeat Deflection Temperature220°CISC0.45 MPa, Unannealed220°CISC1.8 MPa, Unannealed215°CISCMelting Temperature (DSC)220°CISCInjectionNominal ValueUnitDrying Temperature80.0°CISCDrying Time2.0 to 4.0hrISCSuggested Max Moisture0.060%ISCProcessing (Melt) Temp280 to 305°CISCMold Temperature80.0 to 95.0°CISC	۳ <b>۲</b>	12	kJ/m²	
Heat Deflection Temperature0.45 MPa, Unannealed220°CISC1.8 MPa, Unannealed215°CISCMelting Temperature (DSC)220°CISCInjectionNominal ValueUnitDrying Temperature80.0°CISCDrying Time2.0 to 4.0hrISCSuggested Max Moisture0.060%ISCProcessing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	C ·	15	kJ/m²	
0.45 MPa, Unannealed220°CISC1.8 MPa, Unannealed215°CISCMelting Temperature (DSC)220°CISCInjectionNominal ValueUnitDrying Temperature80.0°CSCDrying Time2.0 to 4.0hrSUSuggested Max Moisture0.060%SCProcessing (Melt) Temp280 to 305°CSCMold Temperature80.0 to 95.0°CSC	nal I	Nominal Value	Unit	Test Method
1.8 MPa, Unannealed215°CISCMelting Temperature (DSC)220°CISCInjectionNominal ValueUnitDrying Temperature80.0°CDrying Time2.0 to 4.0hrSuggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	Deflection Temperature			
Melting Temperature (DSC)220°CISCInjectionNominal ValueUnitDrying Temperature80.0°CDrying Time2.0 to 4.0hrSuggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	5 MPa, Unannealed	220	°C	ISO 75-2/B
InjectionNominal ValueUnitDrying Temperature80.0°CDrying Time2.0 to 4.0hrSuggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	MPa, Unannealed	215	°C	ISO 75-2/A
Drying Temperature80.0°CDrying Time2.0 to 4.0hrSuggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	ng Temperature (DSC)	220	°C	ISO 3146
Drying Time2.0 to 4.0hrSuggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	ion I	Nominal Value	Unit	
Suggested Max Moisture0.060%Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	g Temperature	80.0	°C	
Processing (Melt) Temp280 to 305°CMold Temperature80.0 to 95.0°C	g Time 2	2.0 to 4.0	hr	
Mold Temperature 80.0 to 95.0 °C	ested Max Moisture	0.060	%	
•	essing (Melt) Temp	280 to 305	°C	
Injection Pressure 3.45 to 10.3 MPa	Temperature	80.0 to 95.0	°C	
	ion Pressure	3.45 to 10.3	MPa	
Injection Rate Fast	ion Rate I	Fast		

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## 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

