# Ultramid® A3WG8 BK20560

Polyamide 66

BASF Corporation

## Message:

Ultramid A3WG8 BK20560 is a 40% glass fiber reinforced, pigmented black PA66. This grade offers excellent heat resistance and high strength. It is designed for industrial applications requiring excellent strength and stiffness.
Applications
Typical applications include gear wheels, solenoid valve housings, cable attachments, automotive fuel distributors, pedals and components for automotive gear shifts.

| General Information | | | |
|---|---|---|---|
| Filler / Reinforcement | Glass Fabric,40% Filler by Weight | | |
| Features | High Heat Resistance<br>High Stiffness<br>High Strength<br>Oil Resistant | | |
| Uses | Automotive Applications<br>Fuel Lines<br>Gears<br>Housings<br>Industrial Applications | | |
| Agency Ratings | EC 1907/2006 (REACH) | | |
| RoHS Compliance | RoHS Compliant | | |
| Appearance | Black | | |
| Forms | Pellets | | |
| Processing Method | Injection Molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Density | 1.46 | g/cm³ | ISO 1183 |
| Water Absorption (Equilibrium, 23°C, 50% RH) | 1.5 | % | ISO 62 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus (23°C) | 13200 | MPa | ISO 527-2 |
| Tensile Stress (Break, 23°C) | 220 | MPa | ISO 527-2 |
| Tensile Strain (Break, 23°C) | 3.0 | % | ISO 527-2 |
| Flexural Modulus (23°C) | 12000 | MPa | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | | | ISO 179 |
| -30°C | 11 | kJ/m² | |
| 23°C | 13 | kJ/m² | |
| Charpy Unnotched Impact Strength | | | ISO 179 |

| | | | |
|---|---|---|---|
| -30°C | 83 | kJ/m² | |
| 23°C | 95 | kJ/m² | |
| Notched Izod Impact Strength | | | ISO 180 |
| -40°C | 12 | kJ/m² | |
| 23°C | 14 | kJ/m² | |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature | | | |
| 0.45 MPa, Unannealed | 260 | °C | ISO 75-2/B |
| 1.8 MPa, Unannealed | 250 | °C | ISO 75-2/A |
| Melting Temperature (DSC) | 260 | °C | ISO 3146 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 80.0 | °C | |
| Drying Time | 2.0 to 4.0 | hr | |
| Suggested Max Moisture | 0.15 | % | |
| Processing (Melt) Temp | 280 to 305 | °C | |
| Mold Temperature | 80.0 to 90.0 | °C | |
| Injection Pressure | 3.50 to 12.5 | MPa | |
| Injection Rate | Fast | | |



## Recommended distributors for this material

### 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