# Ultramid® A3WG7 BK00564

## BASF Corporation - Polyamide 66

Monday, November 4, 2019

## General Information

**Product Description**

Ultramid A3WG7 BK00564 is a 35% glass fiber reinforced, pigmented black and heat resistance injection molding PA66 grade for machinery for industrial items.

Applications
Typical applications include gear wheels, solenoid valve housings, cable attachments, automotive fuel distributors and components for automotive gear shift.

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • North America | | |
| Filler / Reinforcement | • Glass Fabric, 35% Filler by Weight | | |
| Features | • High Heat Resistance | • Oil Resistant | |
| Uses | • Automotive Applications<br>• Fuel Lines | • Gears<br>• Housings | • Industrial Applications<br>• Valves/Valve Parts |
| Agency Ratings | • EC 1907/2006 (REACH) | | |
| RoHS Compliance | • RoHS Compliant | | |
| Automotive Specifications | • FORD WSK-M4D673-A<br>• GM GMP.PA66.013 Color: Black | • GM GMW3038P-PA66-GF35H<br>• GM GMW3038P-PA66-GF35H Color: Black | |
| Appearance | • Black | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

## ASTM & ISO Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.41 | g/cm³ | ISO 1183 |
| Water Absorption (Saturation, 73°F) | 5.0 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 1.6 | % | ISO 62 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus (73°F) | 1.67E+6 | psi | ISO 527-2 |
| Tensile Stress (Break, 73°F) | 29000 | psi | ISO 527-2 |
| Tensile Strain (Break, 73°F) | 2.5 | % | ISO 527-2 |
| Flexural Modulus (73°F) | 1.45E+6 | psi | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (73°F) | 5.2 | ft·lb/in² | ISO 179 |
| Notched Izod Impact Strength (73°F) | 5.7 | ft·lb/in² | ISO 180 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature (264 psi, Unannealed) | 482 | °F | ISO 75-2/A |
| Melting Temperature (DSC) | 500 | °F | ISO 3146 |

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### Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 176 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Suggested Max Moisture | 0.15 | % |
| Processing (Melt) Temp | 536 to 581 | °F |
| Mold Temperature | 176 to 194 | °F |
| Injection Pressure | 508 to 1810 | psi |
| Injection Rate | Fast | |

### Notes

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