



# Ultramid® Structure A3WG8 LFX BK23215

BASF Corporation - Polyamide 66

Monday, November 4, 2019

## General Information

### Product Description

Ultramid Structure A3WG8 LFX BK23215 is a 40% long glass-fiber reinforced and heat aging resistant injection molding grade designed for applications requiring excellent strength and stiffness.

### General

|                        |                                                                            |
|------------------------|----------------------------------------------------------------------------|
| Material Status        | • Commercial: Active                                                       |
| Availability           | • North America                                                            |
| Filler / Reinforcement | • Long Glass Fiber, 40% Filler by Weight                                   |
| Features               | • Heat Aging Resistant • High Strength<br>• High Stiffness • Oil Resistant |
| Agency Ratings         | • EC 1907/2006 (REACH)                                                     |
| RoHS Compliance        | • RoHS Compliant                                                           |
| Appearance             | • Black                                                                    |
| Forms                  | • Pellets                                                                  |
| Processing Method      | • Injection Molding                                                        |

## ASTM & ISO Properties <sup>1</sup>

| Physical                         | Dry     | Conditioned | Unit                  | Test Method |
|----------------------------------|---------|-------------|-----------------------|-------------|
| Density                          | 1.47    | --          | g/cm <sup>3</sup>     | ISO 1183    |
| Molding Shrinkage                |         |             |                       | ISO 294-4   |
| Across Flow                      | 0.66    | --          | %                     |             |
| Flow                             | 0.45    | --          | %                     |             |
| Mechanical                       | Dry     | Conditioned | Unit                  | Test Method |
| Tensile Modulus (73°F)           | 1.96E+6 | 1.48E+6     | psi                   | ISO 527-2   |
| Tensile Stress (Break, 73°F)     | 34800   | 24500       | psi                   | ISO 527-2   |
| Tensile Strain (Break, 73°F)     | 2.4     | 2.4         | %                     | ISO 527-2   |
| Flexural Modulus (73°F)          | 1.80E+6 | 1.35E+6     | psi                   | ISO 178     |
| Flexural Stress (73°F)           | 52200   | 38900       | psi                   | ISO 178     |
| Impact                           | Dry     | Conditioned | Unit                  | Test Method |
| Charpy Notched Impact Strength   |         |             |                       | ISO 179     |
| -22°F                            | 10      | 9.5         | ft·lb/in <sup>2</sup> |             |
| 73°F                             | 10      | 10          | ft·lb/in <sup>2</sup> |             |
| Charpy Unnotched Impact Strength |         |             |                       | ISO 179     |
| -22°F                            | 32      | 30          | ft·lb/in <sup>2</sup> |             |
| 73°F                             | 39      | 39          | ft·lb/in <sup>2</sup> |             |
| Thermal                          | Dry     | Conditioned | Unit                  | Test Method |
| Heat Deflection Temperature      |         |             |                       | ISO 75-2/A  |
| 264 psi, Unannealed              | 500     | --          | °F                    |             |
| Melting Temperature (DSC)        | 500     | --          | °F                    | ISO 3146    |

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| Processing Information |             |      |
|------------------------|-------------|------|
| Injection              | Dry         | Unit |
| Drying Temperature     | 181         | °F   |
| Drying Time            | 2.0 to 4.0  | hr   |
| Suggested Max Moisture | 0.15        | %    |
| Processing (Melt) Temp | 554 to 590  | °F   |
| Mold Temperature       | 176 to 212  | °F   |
| Injection Pressure     | 508 to 1810 | psi  |
| Injection Rate         | Fast        |      |

### Notes

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