# Ultramid® A3Z HP UV BK23220

## Polyamide 66

Ultramid A3Z HP UV BK23220 is an impact modified PA66 containing heat and ultraviolet light stabilizers. Designed for maximum toughness at low temperatures, Ultramid A3Z HP UV BK23220 offers a unique combination of impact performance and excellent processability.

| PHYSICAL | ISO Test Method | Property Value | |
|---|---|---|---|
| Density, g/cm³ | 1183 | 1.08 | |
| Mold Shrinkage, parallel, % | 294-4 | 1.6 | |
| Mold Shrinkage, normal, % | 294-4 | 2.1 | |
| **MECHANICAL** | **ISO Test Method** | **Dry** | **Conditioned** |
| **Tensile stress at yield, MPa** | 527 | | |
| 23°C | | 46 | - |
| **Tensile strain at break, %** | 527 | | |
| 23°C | | 50 | - |
| **Flexural Modulus, MPa** | 178 | | |
| 23°C | | 1,703 | - |
| **IMPACT** | **ISO Test Method** | **Dry** | **Conditioned** |
| **Izod Notched Impact, kJ/m²** | 180 | | |
| -40°C | | 22 | - |
| 23°C | | 83 | - |
| **THERMAL** | **ISO Test Method** | **Dry** | **Conditioned** |
| Melting Point, °C | 3146 | 258 | - |
| HDT A, ° C | 75 | 63 | - |

# Processing Guidelines

**Material Handling**
Max. Water content: 0.15%
Material is supplied in sealed containers and drying prior to molding in a dehumidifying or desiccant dryer is recommended. Drying parameters are dependent upon the actual percentage of moisture in the pellets and typical pre-drying conditions are 2-4 hours at 180F (83C). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

**Typical Profile**
Melt Temperature 280-304°C (536-579°F)
Mold Temperature 60-100°C (140-212°F)
Injection and Packing Pressure 35-125 bar (500-1500 psi)

Back Pressure 0-0.35 MPa (0-50 psi)
Screw Speed 40-80 rpm
Screw Compression Ratio 3:1 to 4:1

**Mold Temperatures**
This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 60-100°C (140-212°F) is recommended.

**Pressures**
Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

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# Note

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**BASF Corporation**

Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

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**General Information**
800-BC-RESIN

**Technical Assistance**
800-527-TECH (734-324-5150)

**Web address**
http://www.plasticsportal.com/usa