

Ultramid® A3Z HP UV

Polyamide 66



Product Description

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

| PHYSICAL | ISO Test Method | Property Value | |
|--|-----------------|----------------|-------------|
| Density, g/cm ³ | 1183 | 1.07 | |
| MECHANICAL | ISO Test Method | Dry | Conditioned |
| Tensile Modulus, MPa | 527 | | |
| 23C | | 1,800 | - |
| Tensile stress at yield, MPa | 527 | | |
| 23C | | 47 | - |
| Tensile strain at break, % | 527 | | |
| 23C | | 66 | - |
| Flexural Modulus, MPa | 178 | | |
| 23C | | 1,770 | - |
| IMPACT | ISO Test Method | Dry | Conditioned |
| Izod Notched Impact, kJ/m ² | 180 | | |
| -40C | | 21 | - |
| 23C | | 80 | - |
| Charpy Notched, kJ/m ² | 179 | | |
| -30C | | 20 | - |
| 23C | | 85 | - |
| Charpy Unnotched, kJ/m ² | 179 | | |
| 23C | | 279 | - |
| THERMAL | ISO Test Method | Dry | Conditioned |
| Melting Point, C | 3146 | 260 | - |
| HDT A, C | 75 | 61 | - |

Processing Guidelines

Material Handling

Max. Water content: 0.20%

Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80C (176F) is recommended. Drying time is dependent on moisture level, however 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 280-304C (536-579F)

Mold Temperature 60-100C (140-212F)

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 60-100C (140-212F) 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.

Note

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