

# Ultramid® B3EG6

## Polyamide 6

### Product Description

Ultramid B3EG6 is a 30% glass fiber reinforced injection molding PA6 grade.

### Applications

Typical applications include industrial articles and electrical insulating parts.

| PHYSICAL                                             | ASTM Test Method | Property Value        |             |
|------------------------------------------------------|------------------|-----------------------|-------------|
| Specific Gravity                                     | D-792            | 1.36                  |             |
| Mold Shrinkage (1/8" bar, in/in)                     |                  | 0.003                 |             |
| Moisture, %                                          | D-570            |                       |             |
| (50% RH)                                             |                  | 2.1                   |             |
| (Saturation)                                         |                  | 6.6                   |             |
| MECHANICAL                                           | ASTM Test Method | Dry                   | Conditioned |
| Tensile Strength, Break, MPa (psi)                   | D-638            |                       |             |
| 23C (73F)                                            |                  | 172 (24,900)          | -           |
| Elongation, Break, %                                 | D-638            |                       |             |
| 23C (73F)                                            |                  | 3.2                   | -           |
| Flexural Modulus, MPa (psi)                          | D-790            |                       |             |
| 23C (73F)                                            |                  | 8,280 (1,200,000)     | -           |
| IMPACT                                               | ASTM Test Method | Dry                   | Conditioned |
| Notched Izod Impact, J/M (ft-lbs/in)                 | D-256            |                       |             |
| -40C (-40F)                                          |                  | 96 (1.8)              | -           |
| 23C (73F)                                            |                  | 107 (2.0)             | -           |
| THERMAL                                              | ASTM Test Method | Dry                   | Conditioned |
| Melting Point, C(F)                                  | D-3418           | 220 (428)             | -           |
| Heat Deflection @ 264 psi (1.8 MPa) C(F)             | D-648            | 210 (410)             | -           |
| Heat Deflection @ 66 psi (.45 MPa) C(F)              | D-648            | 220 (428)             | -           |
| Coef. of Linear Thermal Expansion, mm/mm C (in/in F) | E-831            | 0.2 X10 <sup>-4</sup> | -           |
| UL RATINGS                                           | UL Test Method   | Property Value        |             |
| Flammability Rating, 1.5mm                           | UL94             | HB                    |             |
| Relative Temperature Index, 1.5mm                    | UL746B           |                       |             |
| Mechanical w/o Impact, C                             |                  | 130                   |             |
| Mechanical w/ Impact, C                              |                  | 95                    |             |
| Electrical, C                                        |                  | 120                   |             |
| ELECTRICAL                                           | ASTM Test Method | Dry                   | Conditioned |
| Volume Resistivity, 1.5 mm                           | D-257            | 1E13                  | 1E10        |

