

Mahesh Manglesh Plastics Pvt. Ltd.

Importer, Distributor and Stockists of Engineering Polymer Materials
PA6, PA66, POM, PBT, TPU, TPE, ABS, PMMA, PC, PA46, PPS, PPA



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Comparison Between ULTRAMID A3WG3 & AKV 15 Natural

| Property | Ultramid A3WG3 (BASF) | AKV15 (Envalior) |
|--|-----------------------|------------------|
| Polymer Base | PA66-GF15 | PA66-GF15 |
| Density (kg/m ³) | 1230 | 1240 |
| Glass Fiber Content | 15% | 15% |
| Tensile Modulus (MPa, dry/cond.) | 6000 / 3700 | 6200 / 4100 |
| Stress at Break (MPa, dry/cond.) | 120 / 80 | 125 / 90 |
| Strain at Break (% dry/cond.) | 2.6 / 12 | 3 / 18 |
| Charpy Impact Strength, 23°C (kJ/m ²) | 45 / 70 | 40 / 50 |
| Charpy Impact, Notched, 23°C (kJ/m ²) | 8 / 11 | - / - |
| Charpy Impact, -30°C (kJ/m ² dry/cond.) | 43 / - | 40 / 40 |
| Molding Shrinkage, Parallel (%) | 0.8 | 0.6 |
| Molding Shrinkage, Normal (%) | 1.1 | 1.0 |
| Water Absorption (%) | 7 | 7 |
| Humidity Absorption (%) | 2.2 | 2.4 |
| Melting Temperature (°C) | 260 | 263 |
| Deflection Temp. under Load (1.8 MPa) | 240 | 230 |
| Deflection Temp. under Load (0.45 MPa) | 250 | 250 |
| Vicat Softening Temp. (°C) | 250 | - |
| Burning Behavior (1.5 mm thickness) | HB | HB |

Summary -

- Both materials are PA66 with 15% glass fiber content, and their key mechanical and thermal properties are very similar.
- Small differences in modulus, stress/strain at break, and shrinkage may be due to formulation or measurement, but are within a very close range.
- The decision between these materials can be based on supplier, processing preferences, or specific application requirements.

If you need comparison on additional properties, please specify.