

# 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 & VYDYNE R515

Property	Ultramid A3WG3 (BASF)	Vydyne R515 (Ascend)
Density (kg/m <sup>3</sup> )	1230	1240
Glass Fiber Content (%)	15	15
Molding Shrinkage, Parallel (%)	0.8	0.5
Molding Shrinkage, Normal (%)	1.1	1.0
Water Absorption (%)	7	1
Humidity Absorption (%)	2.2	2.2
Tensile Modulus (MPa, dry/cond.)	6000 / 3700	6600 / 4000
Stress at Break (MPa, dry/cond.)	120 / 80	120 / 80
Strain at Break (% , dry/cond.)	2.6 / 12	3 / 13
Charpy Notched Impact (kJ/m <sup>2</sup> , 23°C)	8 / 11	6 / 7.5
Charpy Impact (kJ/m <sup>2</sup> , 23°C)	45 / 70	39 / 43
Melting Temperature (°C)	260	260
HDT @1.8 MPa (°C)	240	241
HDT @0.45 MPa (°C)	250	258
Vicat Softening Temperature (°C)	250	Not reported
Burning Behavior (1.5mm nom.)	HB	HB

### Summary -

- Both grades are PA66 with 15% glass fiber and have closely matched mechanical and thermal properties. Density and modulus are almost identical, as are the main mechanical strengths.
- Water absorption is notably lower in Vydyne R515, which may be due to the testing condition or specific formulation difference.
- Molding shrinkage parallel to flow is slightly lower for Vydyne R515. This could give marginally improved dimensional stability in some molded parts.
- Vicat softening temperature is reported only for Ultramid A3WG3 and is 250°C