

## Ultramid<sup>®</sup> B3EG6 HPP

## $HPP = \underline{H}igh \underline{P}roductivity \underline{P}lus$

Energy efficiency is an increasingly important aspect to consider, both from an economic and ecological perspective. The cycle time of the injection molding process plays a major role for the highlighted properties. To this end, BASF has developed a new variant of Ultramid<sup>®</sup> B3EG6 HPP, known as High Productivity Plus, which leads to **significant reductions in cycle time** and process energy consumption. First tests show a potential reduction of the cycle time around 30%.



Ultramid<sup>®</sup> B3EG6 HPP – the next generation of polyamide with unmatched performance boost

- PA6 GF30
- Excellent flowability

- Faster crystallization
- CTI 600

## **Outstanding properties**

Properties	Unit	Ultramid <sup>®</sup> B3EG6 HPP UN	Ultramid <sup>®</sup> B3EG6 UN
MVR at 275°C and 5kg	cm <sup>3</sup> /10 min	105	35
Density	g/cm <sup>3</sup>	1.35	1.36
Moisture absorption, 23 °C/50 % r.h.	8	1.9-2.3	1.9-2.3
Tensile modulus	MPa	9800/6300	9500/6200
Stress at break	MPa	185/110	185/115
Strain at break	8	3.4/6.4	3.5/8
Charpy unnotched impact strength (23 °C)	kJ/m <sup>2</sup>	85/95	95/100
Charpy unnotched impact strength (-30 $^\circ\text{C})$	kJ/m <sup>2</sup>	55/55	80/-
Charpy notched impact strength (23 °C)	kJ/m <sup>2</sup>	12/17	15/30
Charpy notched impact strength (-30 °C)	kJ/m <sup>2</sup>	10/10	11/-
HDT A (1.80 MPa)	°C	210	210
HDT B (0.45 MPa)	С°	220	220

Ultramid<sup>®</sup> B3EG6 HPP is a high-performance thermoplastic resin that shows outstanding flowability, faster crystallization and ability to be processed at lower melt temperatures making it an ideal choice for manufacturers and product designers who demand the very best in terms of efficiency and performance.

Ultramid<sup>®</sup>'s ability to be processed at lower melt temperatures makes it a more sustainable choice. Additionally, this resin requires lower injection pressure, which reduces wear and tear on equipment and extends the lifespan of molds and other components. With its rating of CTI 600 (also for black), Ultramid<sup>®</sup> is suitable for use in a wide range of electrical and electronic applications. It also offers excellent laser marking capabilities at 1064 nm.

For manufacturers, a comprehensive Moldflow data set is available, which helps to ensure optimal performance and efficiency throughout the production process.



The graph on the left side shows material comparison of two different Ultramid<sup>®</sup> grades. On the horizontal axis you see the different mass temperatures used for producing test specimens. On the vertical axis you see the flow length of the test part. At 250 degree you see a significant increase of the flow length of the new HPP grade versus the Ultramid<sup>®</sup> EQ grade.

For technical queries relating to Ultramid® please contact:



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