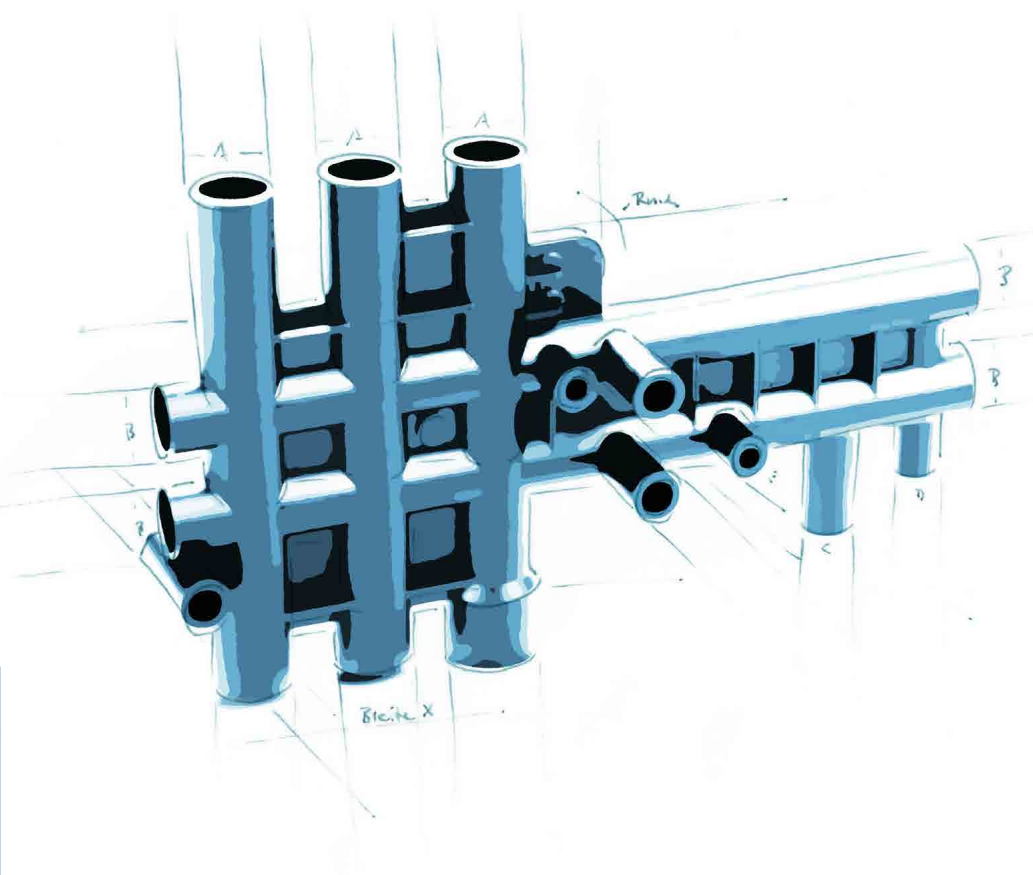


Bridging the gap between PA & PPA for metal replacement

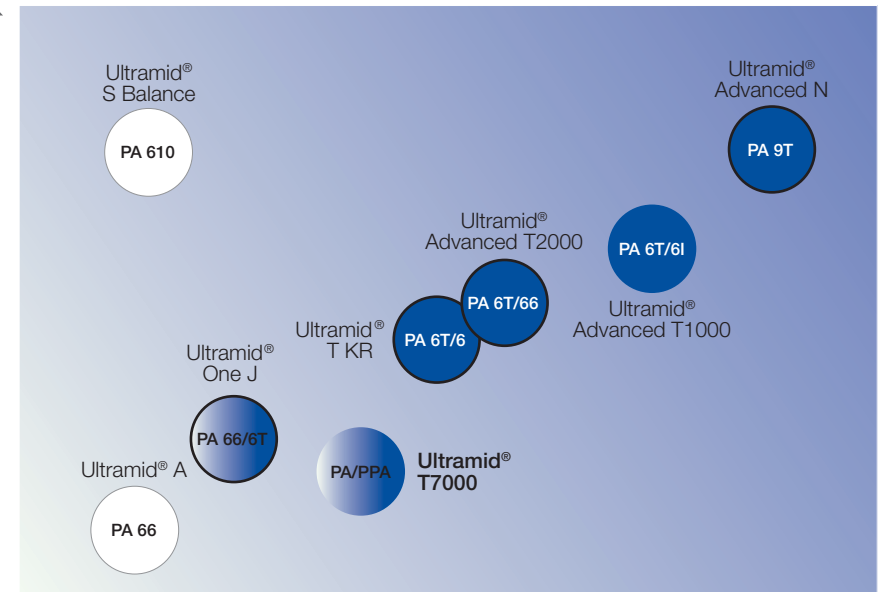
Ultramid® T7000

The unique combination of properties of this PA/PPA blend is perfectly suited for metal replacement. The material has a high stiffness and strength. The polyphthalamide part leads to a low moisture absorption, which gives the components an excellent dimensional stability. It is easily processable for injection molding with an excellent surface finish.



chemical resistance
low water uptake
dimensional stability
hydrophobicity

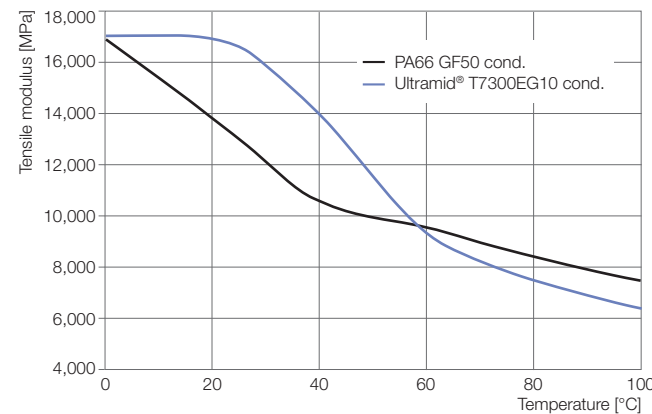
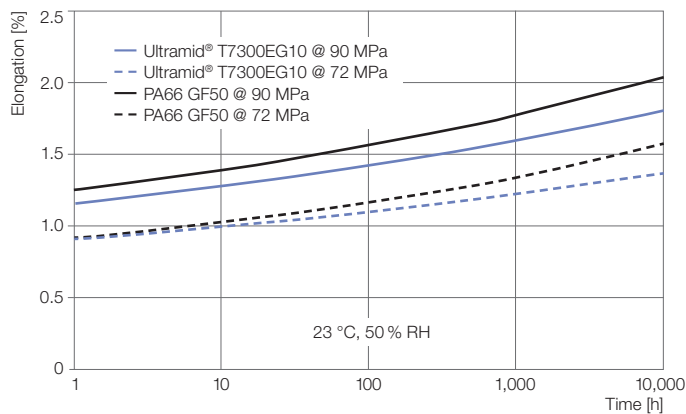
- PPA = Polyphthalamide
- PPA blend or PPA copolymer, < 55% aromatic diacid content
- PA = Polyamide
- Flame retardant grades available



Performance at elevated temperatures and in humid conditions

Glass transition temperature, conditioned

ULTRAMID® T7000



Product	T _m [°C]	HDT A ISO 75 [°C]	E-modulus ISO 527 [MPa]	Tensile strength ISO 527 [MPa]
Ultramid® Advanced T1000HG10 (6T/6I GF50)	320	>280	19,000 / 19,000	280 / 260
T7300EG10 (PPA blend GF50)	250	240	17,700 / 16,600	255 / 210
A3WG10 (PA66 GF50)	260	250	16,800 / 12,500	240 / 180

Lower creep and higher resistance to fatigue than PA66

- Withstands high and continuous mechanical loads with minimal creep
- High resistance to cyclic mechanical loads (fatigue)
- Typical disadvantage of plastic for creeping is reduced significantly



Stable mechanics at elevated temperatures

Higher stiffness and strength than PA66 in conditioned state

- Ultramid® T7000 stiffer and stronger than PA66 for most temperatures
- Perfectly suited for metal replacement of parts which are exposed to moisture



High dimensional stability

Bridging the gap between PA66 and PPA

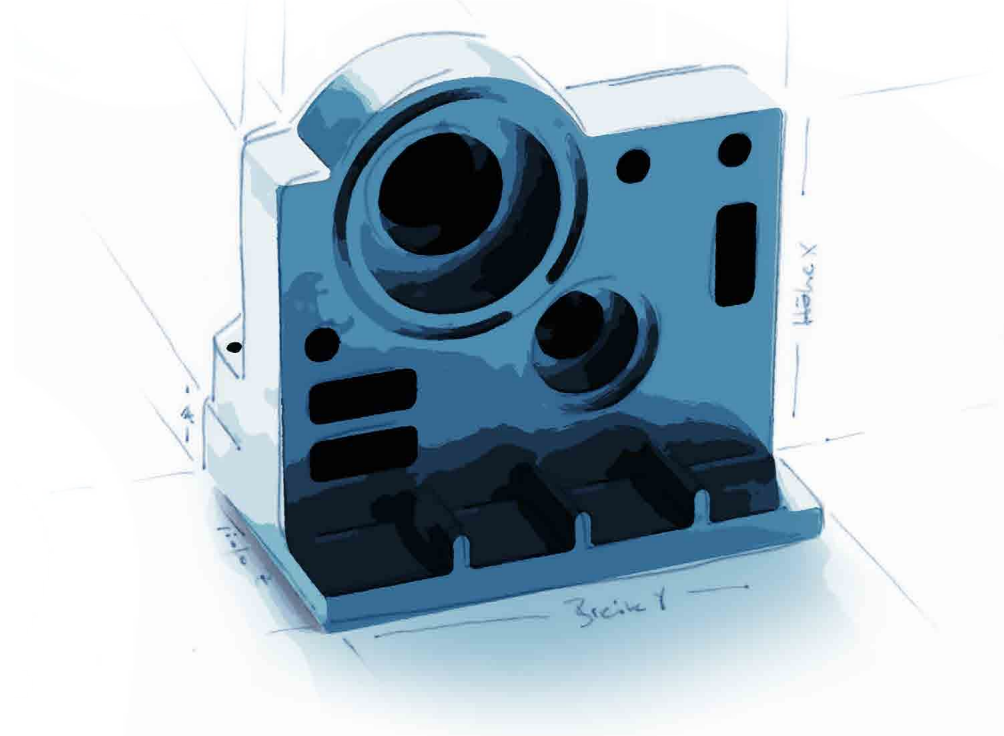
Ultramid® T7000 is bridging the gap between PA66 and PPA grades for key properties, also in conditioned state.

Mechanical properties

Ultramid® T7000	Tensile modulus at 23 °C ISO 527-1/-2 [MPa]	Stress at break at 23 °C ISO 527-1/-2 [MPa]	Strain at break at 23 °C ISO 527-1/-2 [%]	Charpy unnotched impact strength at 23 °C ISO 179/1eJ [kJ/m²]	Charpy notched impact strength at 23 °C ISO 179/1eA [kJ/m²]
EG8	13,000 / cond. 12,300	255 / cond. 175	3.1 / cond. 3.1	90 / cond. 85	12 / cond. 12
EG10	17,700 / cond. 16,600	255 / cond. 210	2.8 / 3.0	108 / cond. 100	15 / cond. 15
ZG10	15,800 / cond. 14,500	220 / cond. 170	3.1 / 3.9	108 / cond. 100	19 / cond. 14

Processing

Ultramid® T7000	Melt temperature injection molding [°C]	Mold temperature injection molding [°C]
EG8	290-300	80-120
EG10	300-320	80-120
ZG10	300-320	80-120



Ultramid® Advanced T7000

Product portfolio and applications

	Ultramid®	Reinforcement	Colors
Glass-fiber reinforced	T7300EG8	40 % GF	LS bk
	T7300EG10	50 % GF	LS bk
Impact modifier	T7300ZG10	50 % GF	LS bk

LS: laser sensitive; LT: laser transparent

Further grades on request. Please contact us.

For long glass-fiber reinforced grades, see Ultramid® Structure brochure.

Applications

- Structural components in automotive, e.g., engine mounts or air brake parts
- Furniture parts
- Sanitary components
- Water meters



The right material for the right part: choose the suitable material for your application!
PPA Product Selector on www.ppa.basf.com

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (September 2023)

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