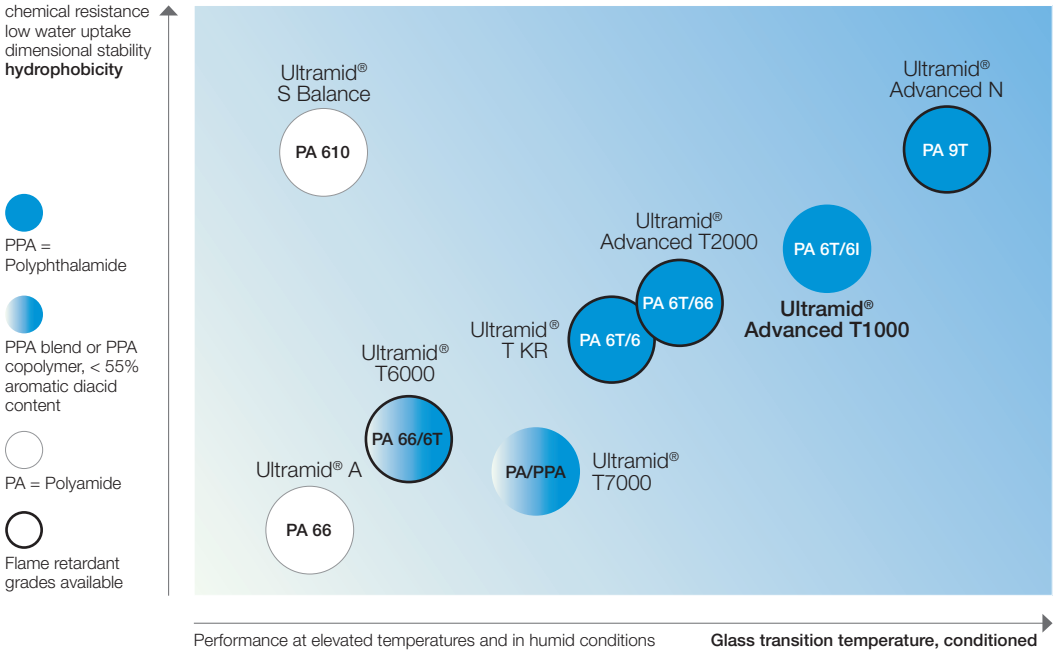
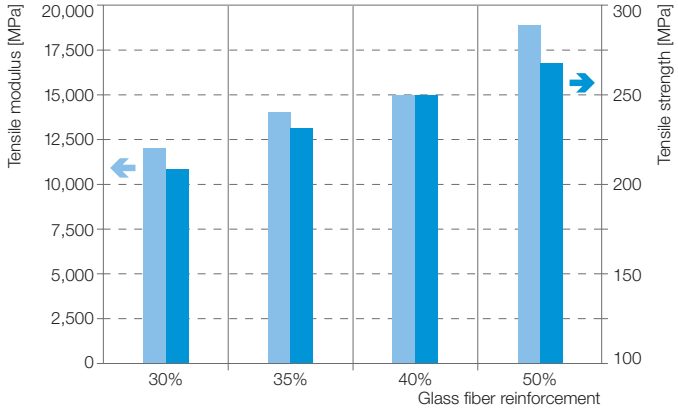
One T for 1000 tasks

Strong and stable – the PPA Ultramid® Advanced T1000

Ultramid® Advanced T1000 comprises the strongest and stiffest products of the Ultramid® (PA) family with stable mechanical properties up to temperatures of about 120 °C. Due to its partially aromatic chemical structure the PA 6T/6I offers high resistance against humidity and contact with challenging media – outperforming standard polyamides and many other PPA materials.

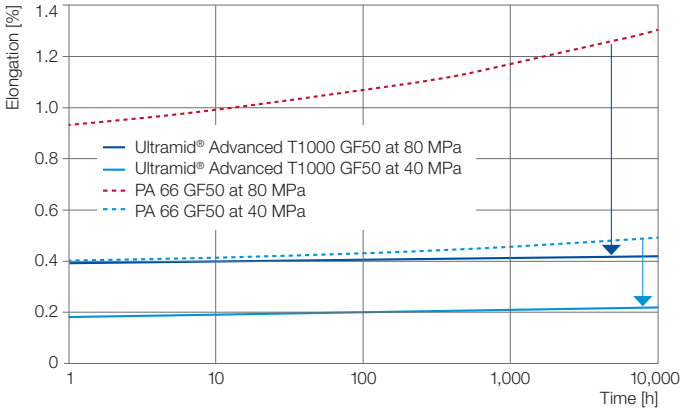


ULTRAMID® ADV



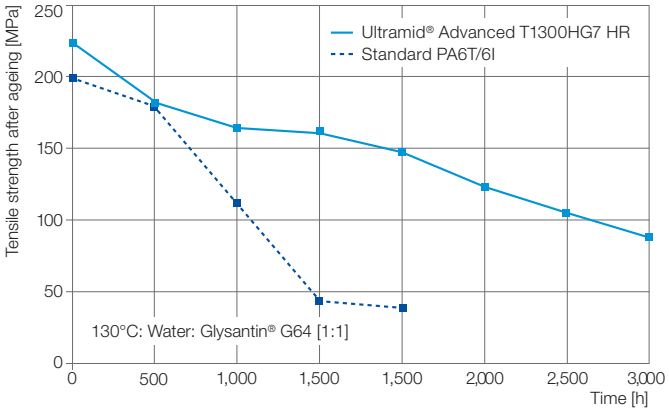
Oustanding stiffness and strength

- Reinforcement from 30 % to 50 % GF
- Perfectly suited for metal replacement in challenging environments
- For highly stressed parts



Low creep and high resistance to fatigue

- 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



HR-improved grade

- Better resistance to many challenging media such as glycol/water
- Many different applications possible, e.g., in thermal management, like pumps or thermostat housings

Stable mechanics at elevated temperatures

High dimensional stability

High dimensional stability

Outstanding chemical resistance

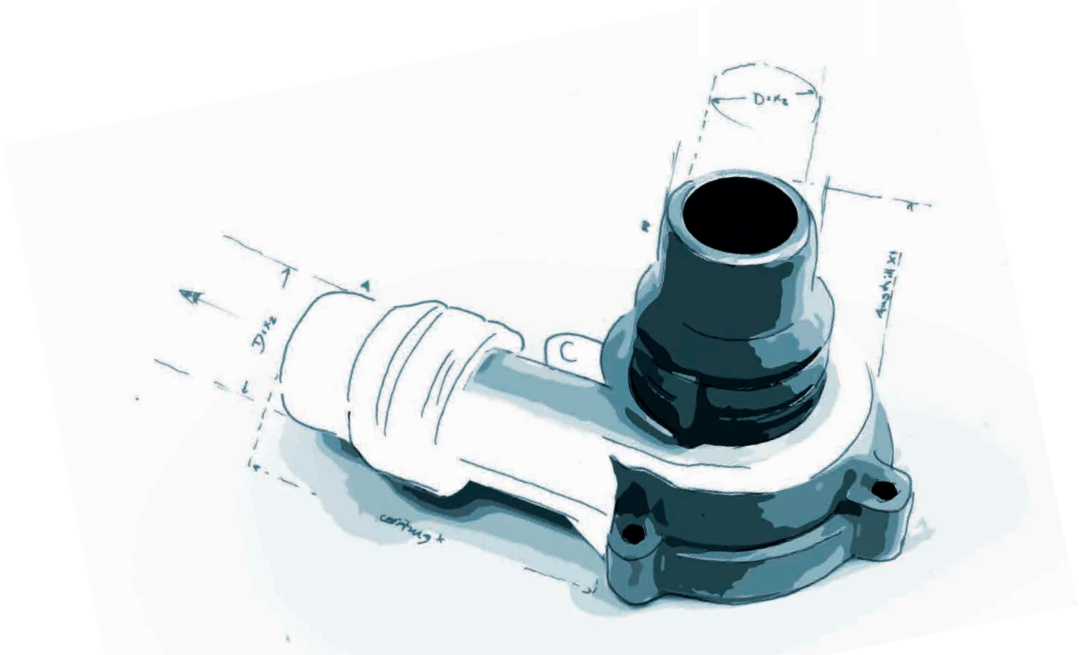
ANCED T1000

Mechanical properties

Ultramid® Advanced	T_g [°C]	T_m [°C]	HDT A ISO 75 [°C]	Specific gravity ISO 1183 [g/cm³]	E-modulus ISO 527 [MPa]	Tensile strength ISO 527 [MPa]	Elong. at break ISO 527 [%]	Charpy unnotched ISO 179/1eA [kJ/m²]	Charpy notched ISO 179/1eA [kJ/m²]
T1000HG6	125	325	> 275	1.44	23 °C: 11,800 80 °C / cond. 11,000 170 °C: 3,700	23 °C: 200 80 °C / cond. 175 170 °C: 65	2.1	55	8
T1000HG7	125	325	> 280	1.49	23 °C: 13,500 80 °C / cond. 12,000 170 °C: 5,000	23 °C: 230 80 °C / cond. 145 170 °C: 75	2.2	70	10
T1000HG8	125	325	> 280	1.53	23 °C: 15,100 80 °C / cond. 12,900 170 °C: 4,800	23 °C: 245 80 °C / cond. 145 170 °C: 75	2.1	75	11
T1000HG10	125	325	> 280	1.64	23 °C: 19,400 80 °C / cond. 17,500 170 °C: 7,000	23 °C: 280 80 °C / cond. 200 170 °C: 85	2.0	95	13

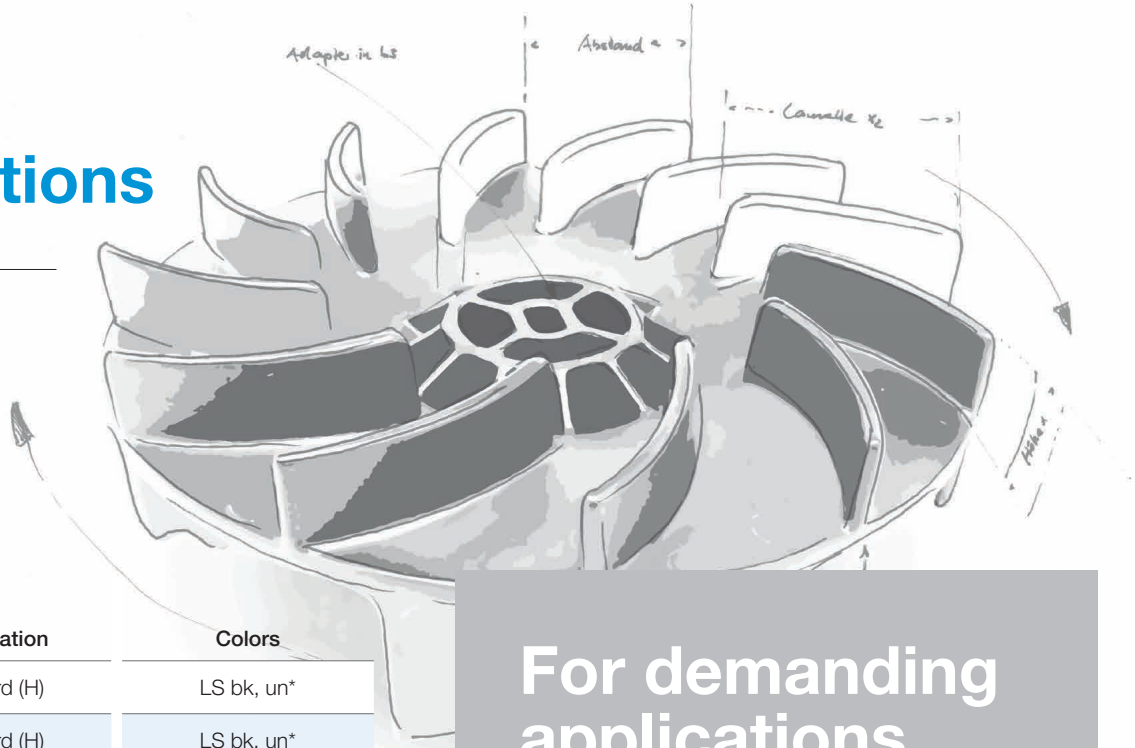
Processing

Ultramid® Advanced	Melt temperature [°C]	Mold temperature [°C]
T1000HG6	335-355	140-170
T1000HG10	345-355	150-190



Ultramid® Advanced T1000

Product portfolio and applications



	Ultramid® Advanced	Reinforcement	Stabilization	Colors
Glass-fiber reinforced	T1000HG6	30 % GF	standard (H)	LS bk, un*
	T1000HG7	35 % GF	standard (H)	LS bk, un*
	T1000HG8	40 % GF	standard (H)	LS bk, un*
	T1000HG10	50 % GF	standard (H)	LS bk, un*
Laser Transparent	T1300EG7 LT	35 % GF	standard (E)	Bk, un*
Hydrolysis Resistant	T1300HG7 HR	35 % GF	standard (H)	LS bk
Electronic Quality	T1300EG7 EQ	35 % GF	standard (E)	LS bk

LS: laser sensitive; *uncolored grades with standard (E) stabilizer.

For demanding applications

- Electric powertrain (e.g., e-motor parts)
- Fuel cell (e.g., humidifier)
- Vehicle sensors
- Motors & actuators
- Thermal management (e.g., pumps)
- Structural parts

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

For further questions please contact the Ultra-Infopoint: +49 621 60-78780 / ultraplaste.infopoint@basf.com

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