

Powder Bed Fusion

The Very Best Production-Grade Powders

The new Forward AM Ultrasint® powders set new standards in 3D printing using polymer powders and enable new possibilities for advanced applications, from functional prototyping through to end-use serial production parts. Our materials fulfill the highest quality standards and are designed for ease of use on most common printing equipment. In addition to the material itself we offer expert technical support and the full spectrum of services from design and simulation through to post-treatment of printed parts.

Benefits at a Glance

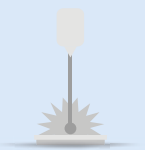
- Production-ready high-performance materials
- Extensive product range from a single provider
- Deep 3D printing application expertise
- High quality materials and expert customer support
- Independence through open business model

Example Applications

- Design and functional prototypes
- High-end series parts
- Automotive, aerospace and industrial parts
- Individualized consumer goods
- Spare parts on demand

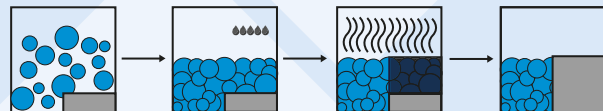
PBF Technologies

The direct production of end-use parts without the need for tooling is now a reality – from digital CAD data to finished polymer parts within hours. The main benefits of PBF technologies are high throughput through three-dimensional stacking of parts, maximum design freedom and the highest technical readiness level of all polymer 3DP technologies plus fast and on demand part availability.



Laser Sintering (LS)

Selective melting of thin polymer powder layers by laser energy.



High Speed Sintering (HSS)

Areal melting of thin polymer powder layers by applying an absorbing ink and fusing by lamps

Ultrasint® Product Range



Ultrasint® PA6 Range e.g. engine bracket

- High strength and rigidity
- Excellent high-temperature performance
- Well known from Injection Molding
- Ideal for engine parts



Ultrasint® PA11 Range e.g. sun glasses

- Excellent toughness
- Versatile applications from prototyping to special functionalities
- High machine compatibility
- Suitable for skin contact



Ultrasint® PP Range e.g. fluid guides and reservoirs

- High strength and rigidity
- Excellent chemical resistance
- Ideal both for prototypes and functional parts



Ultrasint® TPU Range e.g. shoe soles

- Very high elasticity
- Excellent durability
- Stiffness can be individually adjusted through part design
- Ideal for lattice structures