



# Ultrasint® TPU 88A

## Thermoplastic Polyurethane Powder for Laser Sintering

Ultrasint® TPU 88A is a multi-purpose material for application in Laser Sintering. Parts produced with this material offer either high shock absorption or excellent energy return as well as good resistance to fatigue. Ultrasint® TPU 88A shows a balanced property profile with good flexibility and allows complete freedom of design, high level of detail and surface quality. Ultrasint® TPU 88A passed skin sensitisation and cytotoxicity tests in accordance with ISO 10993-10 and ISO 10993-5.

It combines high ease of use on any PBF machine and high process stability, offering 80 percent reusability ratio. Parts printed with Ultrasint® TPU 88A have a stable white colour and allow easy finishing through smoothing, dyeing and coating. To top it off, the material shows good UV and hydrolysis resistance. Suitable for a wide range of applications.

### Benefits at a Glance

- High process stability and easy-to-print on any PBF equipment
- High elasticity, rebound and resistance to fatigue
- Excellent surface quality and level of detail
- Easy finishing incl. smoothing, color dyeing, Ultracur3D® coating

### Example Applications

- Tubes and pipes for industrial use
- Footwear
- Sports protection equipment
- Transportation industry
- Automotive interior
- Jigs & fixtures

### Material Properties

Hardness Shore A	88-90
Tensile strength (MPa)	8
Young's Modulus (MPa)	75
Elongation at Break (%)	270
Charpy Impact notched	no break
Rebound resilience (%)	63

### Application Example:

#### Industrial tubes and pipes

- Water-tight down to 0.6mm wall thickness
- High burst pressure, e.g. 7.4 bar at 3mm wall thickness
- Good resistance to water and various chemicals
- Readily implemented material model allows for further part optimization via BASF Ultrasim® simulation and design services

