



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.

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, dying 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 dying, Ultracur3D® coating

Fields of Application

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

Main Properties

| 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



