



## ADSINT® TPU 90

**AdSint® TPU 90** (thermoplastic Polyurethane) is a soft engineered powder developed for the SLS technology. Its unique characteristics are high elongation, excellent physical properties combined with a rubber-like elasticity and good abrasive as well as chemical resistance. Typical applications are hard-soft systems, sport footwear, orthopedic models, hoses and tubes, sealing's and wheels. **AdSint® TPU 90** has been tested on most common SLS printers. Parameters for printing will be provided. Due to its lower printing temperature (below 130° C), energy and time savings are possible. The recycling rate of 100% implies a high cost advantage. **AdSint® TPU 90** is also available in black and can be perfectly used on smaller machines.

### General properties

Measurement	Method & Conditions	Metric Value
Average particle size (X50)	ISO 13320	53-63 µm
PSD max (99%)	Air Jet Sieve	90 µm
Powder packed density 23°C	ISO 1068-1975	0,50 ± 0,05g/cm <sup>3</sup>
Part Density 23°C	ISO 61	1.05± 0,05g/cm <sup>3</sup>
Melt flow rate @ 160°C & 2.16kg	ISO 62/1	4 g/10min

### Thermal properties

Measurement	Method & Conditions	Metric Value
Melting point T <sup>m</sup>	DSC	154°C
Glass transition Temperature T <sup>g</sup>	ISO 11357-3	-19±2°C

### Mechanical properties

Measurement	Method & Conditions	Metric Value
Tensile strength at break	ISO 527-2:93-1B (X direction)	10 MPa
Elongation at break	ISO 527-2:93-1B (X direction)	250 %
Flexural modulus	ISO 178 (23°C)	10 MPa
Short Hardness A	ISO 868 (20°C)	88-92

## Handling – storage

Store the product in original packaging away from moisture and heat. Under these conditions, the material will maintain its technical properties for 3 years. Once the material passes the 3 year limit, it will be necessary to perform testing of the specified data to restart the shelf life period.

## Delivery Form

The material will be delivered in 2kg bottles or 20kg drums (2x10kg powder bags).