

Technical Data Sheet

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 ³
Part Density 23°C	ISO 61	1.05± 0,05g/cm ³
Melt flow rate @ 160°C & 2.16kg	ISO 62/1	4 g/10min

Thermal properties

Measurement	Method & Conditions	Metric Value
Melting point T ^m	DSC	154°C
Glass transition Temperature T ^g	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).

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