

# Addigy<sup>®</sup> PPU 90A X6

## Powder Bed Fusion

Additive manufacturing ether-based thermoplastic polyurethane (TPU) for powder bed fusion such as Selective Laser Sintering (SLS) and High-Speed Sintering (HSS).

### Key Benefits

- Resistance to saltwater stress cracking
- Hydrolytic stability
- Formulated with TPU grade passing ISO cytotoxicity

### Applications

- Orthopedic insoles
- Industrial components (seals/gaskets)
- Protective jackets (e.g., flexible shielding)

### Technical Data

Property	Specimen	Value	Unit	Test Method
Appearance		natural color	-	
Density	printed	approx. 1040	kg/m <sup>3</sup>	ISO 1183-1
Bulk density	powder	approx. 330	kg/m <sup>3</sup>	ISO 1183-1
Hausner ratio	powder	< 1.35	-	ISO 787-11

Thermal Properties	Specimen	Value	Unit	Test Method
Glass transition temperature	powder	-44	°C	ISO 6721-1
Melting range	powder	110 - 180	°C	ISO 6721-1

Mechanical Properties	Specimen	Value	Unit	Test Method
Shore hardness A	printed	approx. 90	-	ISO 48-4
Tensile strength	printed XY	16	MPa	DIN 53504-S2 (200 mm/min.)
Tensile strength	printed Z	8	MPa	DIN 53504-S2 (200 mm/min.)
Elongation at break	printed XY	435	%	DIN 53504-S2 (200 mm/min.)
Elongation at break	printed Z	310	%	DIN 53504-S2 (200 mm/min.)
Tear resistance	printed XY	95	kN/m	ISO 34-1
Tear resistance	printed Z	58	kN/m	ISO 34-1
Abrasion resistance	printed XY	40	mm <sup>3</sup>	ISO 4649
Abrasion resistance	printed Z	56	mm <sup>3</sup>	ISO 4649
Rebound resilience	printed	54	%	DIN 53512

#### Disclaimer

The information presented are typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Tested parts were built on a Farsoon FS251P.



## Storage

The product should be stored in its original packaging at all times. If bags or containers have been opened, they must then be sealed again to ensure proper further storage. Prolonged exposure of bags or containers containing Addigy® powders to light or light sources containing UV rays should be avoided. UV radiation will lead to degradation especially, but not limited to color changes of the powders. Constant, normal room temperature with minimal fluctuations and low to normal humidity is essential.

## Storage Time

Stratasys represents that, for a period of twenty-four months following the day of shipment as stated in the respective transport documents, the product will meet the specifications or values set forth in the Certificate of Analysis, provided that the product is stored in full compliance with the storage conditions set forth in and referenced under section "storage" above and is otherwise handled appropriately. The lapse of the twenty-four months period does not necessarily mean that the product no longer meets specifications or the set values. However, prior to using said product, Stratasys recommends to test such a product if it still meets the specifications or the set values.

## Labeling and statutory requirements

This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet.



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**MATERIAL DATA SHEET**  
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