

# Addigy<sup>®</sup> P1210

## Powder Bed Fusion

Additive manufacturing thermoplastic engineering polyester (PBT) for powder bed fusion such as Selective Laser Sintering (SLS).

### Key Benefits

- High stiffness
- High thermal resistance
- Improved dimensional stability due to lower moisture uptake

### Applications

- Connectors
- Automotive electronics
- Electrical housing

### Technical Data

Property	Specimen	Value	Unit	Test Method
Appearance		white	-	
Bulk density	powder	570	kg/m <sup>3</sup>	ISO 1183-1
Tapped density	powder	730	kg/m <sup>3</sup>	ISO 787-11
Hausner ratio	powder	< 1.30	-	ISO 787-11

Thermal Properties	Specimen	Value	Unit	Test Method
Melting temperature (10 °C/min)	powder	225	°C	ISO 11357-1/-3
Glass transition temperature (10 °C/min)	powder	55	°C	ISO 11357-1/-2
Heat deflection temperature A (1.80 MPa)	printed XY	125	°C	ISO 75-1/-2
Heat deflection temperature B (0.45 MPa)	printed XY	210	°C	ISO 75-1/-2

Mechanical Properties	Specimen	Value	Unit	Test Method
Tensile modulus	printed XY	2800	MPa	ISO 527-1/-2
Tensile modulus	printed Z	2600	MPa	ISO 527-1/-2
Tensile strength at break	printed XY	50	MPa	ISO 527-1/-2
Tensile strength at break	printed Z	40	MPa	ISO 527-1/-2
Elongation at break	printed XY	2.6	%	ISO 527-1/-2
Elongation at break	printed Z	1.7	%	ISO 527-1/-2
Impact strength Charpy unnotched (23 °C)	printed XY	6.7	kJ/m <sup>2</sup>	ISO 179-1
Impact strength Charpy unnotched (23 °C)	printed Z	4.0	kJ/m <sup>2</sup>	ISO 179-1

Flammability Properties	Specimen	Value	Unit	Test Method
Burn rate – 3.0 mm thickness	printed XY	45	mm/min.	FMVSS 302
Burn rate – 1.5 mm thickness	printed XY	62	mm/min.	FMVSS 302
Horizontal burning test – 1.5 mm thickness	printed XY	UL94 HB	class	IEC 60695-11-10



Electrical Properties	Specimen	Value (dry/cond.)	Unit	Test Method
Dielectric strength	printed XY	24 / 24	kV/mm	IEC 60243-1
Breakdown voltage	printed XY	23 / 22	kV	IEC 60243-1
Dissipation factor (100 Hz)	printed XY	$20 \times 10^{-4}$ / -	-	IEC 62631-2-1
Dissipation factor (1 MHz)	printed XY	$149 \times 10^{-4}$ / -	-	IEC 62631-2-1
Volume resistivity	printed XY	$4.4 \times 10^{14}$ / -	Ohm•m	ASTM D257
Surface resistivity	printed XY	$8.1 \times 10^{16}$ / -	Ohm	ASTM D257
Comparative tracking index	printed XY	> 700 / -	V	IEC 60112

**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 Prodways P2000.

## 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.



**stratasys.com**  
ISO 9001:2015  
Certified

Stratasys Headquarters  
7665 Commerce Way,  
Eden Prairie, MN 55344  
+1 800 801 6491 (US Toll Free)  
+1 952 937-3000 (Intl)  
+1 952 937-0070 (Fax)

1 Holtzman St., Science Park,  
PO Box 2496  
Rehovot 76124, Israel  
+972 74 745 4000  
+972 74 745 5000 (Fax)

## MATERIAL DATA SHEET PBF