# **Data Sheet: SLS-PA12 Glass Filled**

## **THERMAL PROPERTIES**

Property	Unit	Value	Norm
Heat Deflection <sup>i</sup>	°C	96	ISO 75-1/-2
Vicat Softening Temperature <sup>i</sup>	°C	166	ISO 306

## **MECHANICAL PROPERTIES**

Property	Unit	Value	Norm
Tensile Strength <sup>ii</sup>	MPa	51	ISO 527
Tensile Modulus <sup>ii</sup>	MPa	3200	ISO 527
Charpy-Impact Strength	kJ/m²	5.4	ISO 179/1eA
Charpy – Impact Strength	kJ/m²	35	ISO 179/1eU
Flexural Modulus	MPa	2900	ISO 178
Shore -D Hardness	D	80	ISO 868
Elongation at Break <sup>ii</sup>	%	9	ISO 527

## **PHYSICAL PROPERTIES**

Property	Unit	Value
Density	kg/m³	1220

## **TOLERANCES**

Property	Unit	Value As Built
Achievable Part Accuracy <sup>iii</sup>	mm %	+/- 0.3 mm for parts up to 100 mm +/- 0.3 % for beyond 100 mm
Min. Wall Thickness	mm	1.0

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# **MAKERVERSE**

## **AVAILABLE FINISHES WITH PROPERTIES DEFINED IN THIS DATA SHEET**

#### 1 | STANDARD

As built and removing access material by blasting with air.

## **AVAILABLE FINISHES FOR SURFACE REQUIREMENTS**

### 2 | SEALED

As built and removing access material by blasting with air including additional sealing to achieve air- and watertight geometries.

#### 3 | SMOOTHED

As built and removing access material by blasting with air including additional chemical smoothing to achieve a homogeneous, smooth surface roughness.

### 4 | TUMBLED

As built and removing access material by blasting with air including mechanical tumbling to achieve a smoother surface roughness across all exposed surfaces of the part.

## **AVAILABLE FINISHES FOR COLOR REQUIREMENTS**

#### 5 | PAINTED

As built and removing access material by blasting with air including a color of choice applied to the part. Surfaces that require painting and the RAL color code should be specified on the technical drawing or in the comment field on the MakerVerse platform.

### 6 | COLOR DYED

As built and removing access material by blasting with air including additional dyeing by immersion in a warm color bath. The color penetration reaches a depth of about 0.5 mm and covers all surfaces.

## **AVAILABLE COMBINATIONS OF FINISHES**

Many finishes can be combined or tuned to specific requirements. Please select "custom" in the "finish" dropdown on the MakerVerse platform and specify your requirements to request a quote for alternative finishing options.

### **MAXIMUM BUILD CHAMBER SIZE**

700 mm x 380 mm x 580 mm

**Warranty/Disclaimer:** The data from finished parts can deviate from above values depending on the manufacturing process and the component geometry. The data represents our present empirical values. It is incumbent on the person placing the order to examine whether it is suitable for its intended purpose, before using the product.

- i At 1.8 MPa as per ISO 75-1/-2, At 50°/h, 50N as per ISO 306
- Depending on build direction
- iii As a result of the part's geometry, strong tensions may cause distortion in the part which may lead to greater deviation.

20221024 Version: 1.0.8