

Data Sheet: SLS-PA12 Al Filledⁱ

Thermal Properties

Property	Value	Norm
Heat Deflection [°C] ⁱⁱ	144	ISO 75-1/-2
Vicat Softening Temperature [°C] ⁱⁱⁱ	169	ISO 306

Mechanical Properties

Property	Value	Norm
Tensile Strength [MPa] ^{iv}	48	ISO 527
Tensile Modulus [MPa] ^{iv}	3800	ISO 527
Charpy-Notched Impact Strength [kJ/m ²]	4.6	ISO 179/1eA
Charpy – Impact Strength [kJ/m ²]	29	ISO 179
Flexural Modulus [MPa]	3600	ISO 178
Shore -D Hardness [D]	76	ISO 868
Elongation at Break [%] ^{iv}	4	ISO 527

Physical Properties

Property	Value
Density [kg/m ³]	1360

Tolerances

Property	Value as built	Unit
Achievable Part Accuracy^v	+/- 0.3 mm for parts up to 100 mm +/- 0.3 % for beyond 100 mm	mm / %
Min. Wall thickness	1.0	mm

ⁱ 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. The default postprocessing for this material is blasting.

ⁱⁱ At 1.8 MPa as per ISO 75-1/-2

ⁱⁱⁱ At 50°/h, 50N as per ISO 306

^{iv} Depending on build direction

^v As a result of the part's geometry, strong tensions may cause distortion in the part which may lead to greater deviation.