

# Stainless steel 1.4404

Material data sheet for stainless steel parts produced by Selective Laser Melting

Material Properties	Value as built
Tensile Strength, Horizontal	650 MPa
Tensile Strength, Vertical	590 GPa
Yield strength (Rp 0.2), Horizontal	550 MPa
Yield strength (Rp 0.2), Vertical	490 MPa
Elongation at break, Horizontal	40 %
Elongation at break, Vertical	45 %
Hardness by Rockwell	90 HRB

Process-related properties	Value as built
Roughness (after micro shot blasting) (Ra/Rz)	Ra 3-8 / Rz 20-45 µm

1) Due to anisotropic effects, some geometries will only allow for lesser values of max. 15 % below manufacturer's information. Please consider this in the design of the part.

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

3) For surfaces which are to be finished mechanically, an allowance of at least 0,5 mm is recommended for part sizes up to 200 mm and 1.0 mm for bigger parts.

Please note:

Component densities over 99,5% require additional HIP treatment. Mentioned post-processing options are provided optionally.