

Stainless Steel 316L



MATERIAL: STAINLESS STEEL ALLOY / 1.4404 / 316L

40 μm

Material data sheet for stainless steel alloy 1.4404 parts produced by Laser Melting.

Additional information	Value	Unit
Layer thickness	40	μm

Typical properties as manufactured ¹	Value		Unit
	vertical	horizontal	
Yield strength (R_p 0,2)	450	500	MPa
Tensile strength (R_m)	550	600	MPa
Elongation at break (A)	50	35	%

Additional data	Value	Unit
Surface roughness (Ra)	9 - 15	μm
Surface roughness shot-peened (Ra)	< 5	μm
Coefficient of thermal expansion ²		
25-100 °C	15.72	10 ⁻⁶ /K
25-200 °C	16.75	
25-300 °C	17.27	
25-400 °C	17.70	

SPECIAL FEATURES:

¹ The testing was done according to ISO 6892-1. Test samples were turned before tensile test.

² The testing was done according to ASTM E228.

Indicative figures only. Actual figures may be change depending on part geometry and other factors.