

# Stainless Steel 316L

Very Tough and Functional

Heat-resistant

high ductility and toughness, exceptional strength, and superior corrosion resistance, making it ideal for a variety of demanding applications.



## Benefits

- Highly corrosion and chemical resistance
- High ductility
- Excellent strength and hardness

## Applications

- Unique or series production parts
- Plant Engineering
- Automotive Engineering
- Medical Technology
- Jewellery
- Components for moulds



## Physical Properties

Colour	Grey
Type	Stainless Steel

## Mechanical Properties

	Heat Treatment
Yield Point $R_e$ <sup>1</sup>	470 N/mm <sup>2</sup>
Tensile Strength $R_m$ <sup>1</sup>	570 N/mm <sup>2</sup>
Elongation A <sup>1,2</sup>	>15 %
Young's modulus <sup>3</sup>	Approx. 200 · 10 <sup>3</sup> N/mm <sup>2</sup>
Thermal Conductivity $\lambda$ <sup>3</sup>	Approx. 15 W/mK
Density (g/cm <sup>3</sup> )	7.9

## Hardness

Hardness <sup>4</sup>	20 HRC
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## Material Composition

Component	Indicative Value (Weight in %)
Fe	Balance
Cr	16,5 – 18,5
Ni	10,0 – 13,0
Mo	2,0 – 2,5
Mn	0 – 2,0
Si	0 – 1,0
P	0 – 0,045
C	0 – 0,030
S	0 – 0,030

<sup>1</sup> Tensile test at 20°C according to DIN EN 50125

<sup>2</sup> By using a special heat treatment a higher elongation can be achieved

<sup>3</sup> Specification according to the material manufacturer's data sheet

<sup>4</sup> Hardness test according to DIN EN 6508

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