

# DATA SHEET

## ALLOY 625 | 2.4856

### Major specifications

UNS N06625 | ASTM B 446 | AMS 5666 | AMS 5599 | NACE MR-0175

### Product forms

Round bar

The current Stock Range can be found on [www.sd-metals.com](http://www.sd-metals.com). Further dimensions available upon request.

### Key features

Alloy 625 is used due to its high strength and excellent corrosion resistance in aqueous media as well as in high temperature oxidizing and carburizing environments. The high chromium and molybdenum content provides a high degree of pitting and crevice corrosion resistance to chloride-containing media such as seawater, neutral salts and salt solutions. The alloy is highly resistant to chloride stress corrosion cracking due to its high nickel content. The strength of Alloy 625 is derived from the matrix-strengthening effect of molybdenum and niobium, which means hardening heat treatments are unnecessary. Alloy 625 retains its excellent ductility and toughness at cryogenic temperatures. It also has excellent malleability and is easy to weld.

### Areas of application

Seals and closures, piping and exhaust systems, motorsport exhaust systems, bellows and expansion joints, furnace equipment, valve components.

## CHARACTERISTIC

### Chemical composition limits in %

Ni min. 58,00

Cr 20,00 - 23,00

Mo 8,00 - 10,00

Fe max. 5,00

Nb 3,15 - 4,15

Mn max. 0,50

Si max. 0,50

Al max. 0,40

Ti max. 0,40

C max. 0,10

### Physical constants and thermal properties

Density 8,44 g/cm<sup>3</sup>

Melting point 1290 - 1350 °C

Thermal conductivity 9,8 W/m • °C

Coefficient of expansion 12,8 µm/m • °C at 21-93°C

### Typical mechanical properties (room temperature)

Yield strength min. 330 MPa

Tensile strength min. 730 MPa

Elongation min. 35 %

All information is subject to change without notice. The properties correspond to the material in the heading. They may vary for other specifications. Please contact us for more details.

Do you have any questions? Contact us:

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