

DATA SHEET

AISI 347 | 1.4546.9

Major specifications

WL 1.4546.9 | UNS S34700 | AMS 5646

Product forms

Round bar

The current Stock Range can be found on www.sd-metals.com. Further dimensions available upon request.

Key features

AISI 347 austenitic multi-purpose stainless steel has excellent heat and corrosion resistance. The properties of this alloy are enhanced through cold working and therefore offer better mechanical properties than 304 stainless steel. AISI 347 is suitable for use in a range of corrosive environments due to its excellent resistance to intergranular corrosion. In addition, this alloy is resistant to high temperatures up to 1050°C and combines stability with excellent mechanical properties, making AISI 347 a suitable choice for high temperature applications.

Areas of application

Manifolds, aircraft exhaust systems, chemical processing and refining, hanger rods and reactor components.

CHARACTERISTIC

Chemical composition limits in %

Fe	Rest
Cr	17,00 - 19,00
Ni	9,00 - 13,00
Mn	max. 2,00
Nb	max. 1,00
Si	max. 1,00
C	max. 0,08
P	max. 0,045
S	max. 0,015

Physical constants and thermal properties

Density	7,9 g/cm ³
Melting point	1400 - 1425 °C
Thermal conductivity at 20°C	15 W/m • °C
Coefficient of expansion at 21 - 100°C	16 µm/m • °C

Typical mechanical properties (room temperature)

Yield strength	min. 205 MPa
Tensile strength	min. 500, max. 750 MPa
Elongation	min. ~40 %

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.