

1.4301

Austenitic stainless steel · Material no. 1.4301

1.4301 (AISI 304) is the most widely used austenitic stainless steel – corrosion-resistant, easily formable and weldable, and tough even at low temperatures.

1.4301 MATERIAL NO.	≥ 190–210 MPa YIELD STRENGTH RP0.2	500–700 MPa TENSILE STRENGTH RM	creep-resistant to ~550 °C · tough to cryogenic SERVICE TEMP.
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Application

- Piping for food, chemical and water applications
- Apparatus, vessel and plant engineering
- Low-temperature applications

Chemical composition (typical, wt.-%, per EN)

Element	Content (%)
C	≤ 0.07
Si	≤ 1.00
Mn	≤ 2.00
Cr	17.5–19.5
Ni	8.0–10.5
N	≤ 0.11

Mechanical properties (typical at RT, per EN)

Property	Value
Yield strength Rp0.2	≥ 190–210 MPa
Tensile strength Rm	500–700 MPa
Elongation A	≥ 45 %

Standards & supply

Topic	Detail
Standards	EN 10216-5, EN 10088
ASME/ASTM equivalent	~ AISI 304
Short name / aka	X5CrNi18-10 · AISI 304 · V2A
Product forms	Pipes, flanges, fittings – seamless/welded, EN 10204 3.1/3.2 mill certificate

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All data are typical values per the relevant EN standards for first orientation – without warranty. The applicable standard and the mill certificate of the delivery are decisive.