STAINLESS STEEL Advanced Materials. Engineered for Performance.

310S Stainless Steel

Stainless Steel | UNS: S31008 | EN: 1.4845 / X8CrNi25-21 | JIS: SUS310S

The high-temperature austenitic. 25Cr-20Ni gives scaling resistance to around 1035 C in continuous service, so 310S is the grade for furnace internals, radiant tubes and anything that lives in flue gas rather than in water.



Stock status: Mill indent - Typical lead time: 4 - 8 weeks mill indent

Key features

- Scaling resistance to about 1035 C in continuous service
- High nickel content resists carburising atmospheres
- Supplied as plate, seamless pipe and heat exchanger / boiler tube
- Solution annealed and pickled, with EN 10204 3.1 certification

Available forms & sizes

Form	Size range
Plates	1.5 - 60 mm thk, up to 2500 mm wide
Seamless Pipes & Tubes	1/2" - 24" NB, SCH 5S - SCH 160
Seamless Pipes & Tubes	6 - 114 mm OD heat exchanger, boiler and finned tube
Round Bars	6 - 400 mm dia
Flanges	1/2" - 48", 150# - 2500#
Fittings	1/2" - 48", SCH 10S - SCH 160

Chemical composition (%)

Element	Min	Max
C	-	0.08
Cr	24.0	26.0
Ni	19.0	22.0
Mn	-	2.00
Si	-	1.50

Mechanical properties

Property	Value	Unit
Yield Strength (0.2%)	205 min	MPa
Tensile Strength	515 min	MPa
Elongation	40 min	%
Hardness	217 max	HBW

Physical properties

Property	Value	Unit
Density	7.98	g/cm3
Max Service Temperature	1035 (continuous)	C

Standards

ASTM A240, ASTM A312 / A213, ASTM A182, EN 10088-2, EN 10204 3.1

Equivalent grades

1.4845, X8CrNi25-21, SUS310S, 310S

Industries served

Power Generation, Cement, Petrochemical, Steel & Foundry, Glass & Lime

Typical applications

- Furnace muffles, retorts and radiant tubes
- Boiler and incinerator internals
- Cement and lime kiln hardware
- Heat treatment baskets and fixtures
- Flue gas and hot gas ducting

Live datasheet