DUPLEX & SUPER DUPLEX Advanced Materials. Engineered for Performance.

Duplex 2205

Duplex & Super Duplex | UNS: S31803 / S32205 | EN: 1.4462 | JIS: SUS329J3L

The most widely used duplex grade. Roughly double the yield strength of 316L, allowing thinner and lighter sections while delivering far better chloride stress corrosion cracking resistance.



Stock status: Ex-stock Dubai - Typical lead time: 2 - 3 working days ex Dubai

Key features

- Twice the yield strength of 316L
- High chloride SCC resistance
- Lower nickel content stabilises cost

Available forms & sizes

Form	Size range
Plates	1.5 - 100 mm thk, up to 2500 mm wide
Seamless Pipes & Tubes	1/2" - 24" NB, SCH 5S - SCH 160
Welded Pipes	6" - 48" OD
Round Bars	6 - 500 mm dia
Flanges	1/2" - 48", 150# - 2500#
Fittings	1/2" - 48", SCH 10S - SCH 160

Chemical composition (%)

Element	Min	Max
C	-	0.030
Cr	22.0	23.0
Ni	4.5	6.5
Mo	3.0	3.5
N	0.14	0.20

Mechanical properties

Property	Value	Unit

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Yield Strength (0.2%)	450 min	MPa
Tensile Strength	620 min	MPa
Elongation	25 min	%
Hardness	293 max	HBW

Physical properties

Property	Value	Unit
Density	7.80	g/cm3
PREN	35	-
Max Service Temperature	300	C

Standards

ASTM A240, ASTM A790, ASTM A182, NORSOK M-650

Equivalent grades

1.4462, S32205, SAF 2205

Industries served

Oil & Gas, Desalination, Chemical Processing, Marine

Typical applications

- Offshore topside piping
- Chemical tanker cargo tanks
- Desalination evaporators
- Pressure vessels

Live datasheet