CARBON STEEL PLATES Advanced Materials. Engineered for Performance.

S355J2W+N / Corten Steel Plates



Carbon Steel Plates | EN: S355J2W+N / 1.8965 | ASTM: A588 Grade A / A709 Gr 50W | Trade name: Corten B

Weathering structural plate. Copper, chromium and nickel additions let a dense, adherent oxide patina form that seals the surface, so the structure can be left unpainted and the maintenance coating cycle disappears.

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

Key features

- Self-protecting patina removes the painting cycle
- Same 355 MPa yield and -20 C toughness as S355J2+N
- Supplied in the normalised condition for weld consistency
- Profile cut to architectural drawings

Available forms & sizes

Form	Size range
Plates	5 - 200 mm thk, up to 3000 mm wide, cut to size
Sheets & Coils	2 - 12 mm thk, 1250 / 1500 / 2000 mm wide

Chemical composition (%)

Element	Min	Max
C	-	0.16
Cu	0.25	0.55
Cr	0.40	0.80
Ni	-	0.65
Mn	0.50	1.50

Mechanical properties

Property	Value	Unit
Yield Strength	355 min (t <= 16 mm)	MPa
Tensile Strength	470 - 630	MPa
Elongation	20 min	%

Property	Value	Unit
Impact Energy	27 J min at -20 C	J

Physical properties

Property	Value	Unit
Density	7.85	g/cm3
Modulus of Elasticity	210	GPa

Standards

EN 10025-5, ASTM A588 / A709, EN 10204 3.1 / 3.2

Equivalent grades

1.8965, Corten B, A588 Gr A, A709 Gr 50W

Industries served

Construction, General Engineering, Transport, Power Generation

Typical applications

- Architectural facades and cladding
- Unpainted bridge and walkway structures
- Chimney and flue casings
- Sculpture and landscape steelwork
- Rail wagons and freight bodies

Live datasheet