

**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