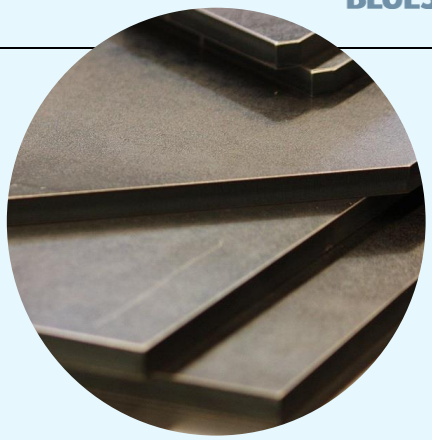
# Uncoated steel
Datasheet

January 2020. This literature supersedes all previous issues



# TRU-SPEC®
# coil plate steel
# AS/NZS 1594 – HA350

**General description**
- Hot-rolled structural steel with a minimum yield strength of 350 MPa, good ductility and good weldability

**Typical uses**
- Structural members
- Roll forming applications
- Brake press forming applications
- Galvanising applications

**Features & benefits**
- Guaranteed minimum strength levels
- Excellent weldability
- Good formability
- Excellent for galvanising applications

**Warnings**
- This material should be used in conjunction with the appropriate design and welding standards.
- An untrimmed edge (Mill Edge) may contain minor surface discontinuities as a result of the rolling process. It is recommended that customers satisfy themselves that the edge is suitable for the application.

**Australian and International standards**
AS/NZS 1594:2002 (R2016)
AS/NZS 1365:1996 (R2016)
ISO 9001:2016 Quality System Certified

**Supply conditions**

| | Normal | Optional |
|---|---|---|
| **Thickness Range** | 3.0 – 12.7 mm * | - |
| **Width Range** | 910 – 1550 mm * | - |
| **Length Range** | 1200 – 9000 mm * | - |
| **Surface Finish** | Hot Rolled | - |
| **Edge Condition** | Untrimmed (Mill Edge) | Trimmed |
| **Tolerance** | AS/NZS 1365:1996 (R2016) | - |
| **Certification** | BlueScope – Analysis and Mechanical tests | - |

* Not all thickness, width & length combinations are available
Optional supply conditions are subject to dimensional restrictions

### Chemical composition

| Element | Guaranteed maximum % |
|---|---|
| **Carbon** | 0.20 |
| **Silicon** | 0.030* |
| **Manganese** | 1.60 |
| **Phosphorus** | 0.040 |
| **Sulfur** | 0.030 |
| **Aluminium** | 0.10 |
| **Micro Alloy (Niobium) **** | 0.15 |
| **CEQ (IIW)** | 0.44 |

All values shown refer to the relevant Australian Standard unless otherwise stated

$$CEQ(IIW) = C + \frac{Mn}{6} + \frac{(Cr+Mo+V)}{5} + \frac{(Cu+Ni)}{15}$$

* Value refers to the BlueScope internal standard, whereas the AS/NZS 1594:2002 (R2016) guaranteed maximum is 0.35%

** Niobium + Vanadium + Titanium = 0.15% Max

### Mechanical properties

| Tensile Properties (Longitudinal) | | Guaranteed value |
|---|---|---|
| **Yield Strength (MPa)** | Guaranteed Minimum | 350 |
| **Tensile Strength (MPa)** | Guaranteed Minimum | 430 |
| **Elongation 80 mm (%)** | Guaranteed Minimum | 16% (≤3mm), 20% (>3mm) |
| **180° Bend (transverse)** | Guaranteed Minimum | 2t ≤5mm, 3t >5mm |

t = thickness of test piece

### Weldability Group

| WTIA Group |
|---|
| 4 |

Refer to WTIA Technical Note 1 or AS/NZS 1554.1:2014