Uncoated Steel
Data Sheet

June 2020 - This literature supersedes all previous issues

REDCOR®

weathering steel (coil)
AS/NZS 1594 - HW350A

General description

HW350A is a high phosphorous structural weathering steel with a minimum yield strength of 340MPa.

Typical uses

Non-structural architectural applications such as solid façades, walls, perforated screens, light sculptures, landscaping features, fences, signage, noise wall barriers.

Features & benefits

Reduced atmospheric corrosion when used in the correct environments

Guaranteed minimum strength levels

Good toughness

Warnings

This material should be used in conjunction with the appropriate structural design and welding standards.

The weathering properties of this material is due to the formation of an impervious oxide layer through the use of alloy additions. Damage to this layer, or environmental conditions affecting the development of this layer, will impact on the effectiveness of the corrosion resistance.

Colour retention across welds can be achieved by appropriate electrode selection. Welds may be susceptible to hot cracking.

Weathering steels are not recommended without further protection for buried or submerged situations or for applications exposed to concentrated industrial fumes or severe marine conditions.

Oxide staining of surrounding areas may occur due to run-off from this material.

Refer to BlueScope Technical Bulletin No. 26 for more information regarding the use of this material.

Australian and International Standards

AS/NZS 1594:2002 (R2016)
AS/NZS 1365:1996 (R2016)
ISO9001:2015 Quality System Certified

Supply conditions

	Normal
Thickness Range	3 – 10 mm
Width Range	1155 – 1250 mm
Surface Finish	Hot Rolled
Edge Condition	Untrimmed (Mill Edge)
Flatness	Class A (Sheet and Plate)
Certification	BlueScope

Chemical composition

Element	Guaranteed %	
	Minimum	Maximum
Carbon	-	0.15
Silicon	0.15	0.75
Manganese	-	1.60
Phosphorus	0.055	0.16
Sulfur	-	0.03
Chromium	0.35	1.05
Nickel	-	0.55
Copper	0.15	0.50
Aluminium	-	0.10
CEQ (IIW)	-	0.54

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

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

* Values shown refer to the BlueScope internal standard
** Vanadium ≤ 0.10 %. Niobium + Titanium + Vanadium ≤ 0.15%

Mechanical properties

Tensile Properties (Longitudinal)		Thickness (mm)
		3 ≤ t ≤ 10
Yield Strength (MPa)	Guaranteed Min	340
Tensile Strength (MPa)	Guaranteed Min	450
Elong. on 200 mm (%)	Guaranteed Min	15

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Fire hazard properties

Test & Evaluation Method	Result
Combustibility test for materials (AS 1530.1-1994 (R2016))	Not deemed combustible (steel substrate)[#]

[#] These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

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