

EMBAR[®] steel

AS/NZS 3679.1-300

General description

A medium strength structural steel product with nominal yield strength of 300 MPa.

Typical uses

General fabrication
Structural members

Australian and International Standards

AS/NZS 3679.1:2016
AS/NZS 1365:1996 (R2016)
ISO 9001:2015 Quality System Certified

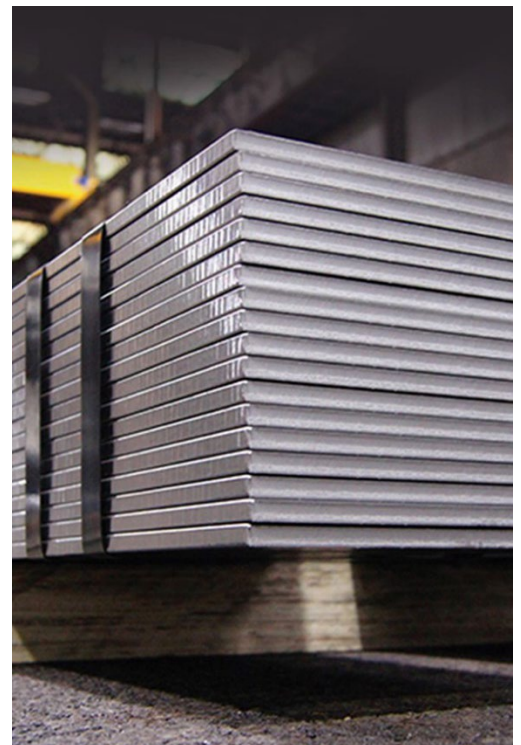
Features & benefits

Flat Bar up to 12mm in thickness has a precision machined edge
Flat Bar 16-25mm in thickness has a thermal cut edge
ACRS Accreditation 160403

Warnings

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

This material contains Silicon. Care should be used in fabrication as surface appearance will be different to plain Aluminium killed steels when galvanised.



Supply conditions

	Precision Machined Edge	Thermal Cut Edge	Optional
Thickness Range	5mm – 12mm	16, 20 & 25 mm.	
Availability	22 Standard Sizes	9 Standard Sizes	Other sizes by enquiry
Edge Condition	Machined Edge	Thermal Cut Edge	
Tolerances	AS/NZS 3679.1:2016	AS/NZS 3679.1:2016	
Surface Inspection	BlueScope	BlueScope	Third party
Certification	BlueScope	BlueScope	Third party endorsed

Optional supply conditions may be subject to dimensional restrictions

Chemical composition

Element	Guaranteed Maximum %
Carbon	0.25
Silicon	0.50
Manganese	1.60
Phosphorus	0.040
Sulfur	0.040
Chromium	0.30
Nickel	0.50
Copper	0.50
Molybdenum	0.10
Aluminium	0.10
Niobium*	0.020
Titanium	0.040
CEQ (IIW)	0.44

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

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

* Niobium + Titanium + Vanadium ≤ 0.15%

Mechanical properties

Guaranteed Minimum Property	Thickness (mm)		
	t < 11	11 ≤ t ≤ 17	17 < t ≤ 25
Yield Strength (MPa)	320	300	280
Tensile Strength (MPa)	440	440	440
Elong. On 5.65√S ₀ (%)	22	22	22

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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To ensure you have the most current information

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