Uncoated steel

Datasheet

April 2019. This literature supersedes all previous issues





 Hot-rolled carbon steel with a guaranteed chemical composition designed for applications requiring good wear resistance after heat treatment.

Typical uses

- Ground engaging tools
- Plough points and discs
- Wear/abrasion applications

Features & benefits

- Abrasion resistance properties on heat treatment
- Excellent hardness/toughness balance after heat treatment
- Boron treated for consistent hardness after heat treatment
- Excellent hardenability and can be hardened in oil and water
- Relatively good formability in the non-heat-treated state compared with higher carbon grades
- Titanium treated for resistance to grain coarsening on re-heating for enhanced final product toughness

Warnings

- This grade is supplied in the as-rolled condition only. Most applications
 require the material to be quenched and tempered. The steel properties
 are dependent on the heat treatment process used and a suitable heat
 treatment process needs to be established by user trials and evaluation.
- 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 AS/NZS 1365: 1996

ISO9001: 2015 Quality System Certified

Supply conditions

	Normal	Optional
Thickness Range	2 – 8.0 mm *	-
Width Range	800 - 900mm *	-
Surface Finish	Hot Rolled	-
Edge Condition	Untrimmed (Mill Edge)	Trimmed
Tolerance	AS/NZS 1365: 1996	-
Certification	BlueScope	-

^{*} Not all thickness & width combinations are available Optional supply conditions are subject to dimensional restrictions

Chemical composition

Element	Guaranteed range or maximum %
Carbon	0.25 – 0.29
Silicon	0.50
Manganese	1.50
Phosphorus	0.030
Sulphur	0.020
Aluminium	0.10
Boron	0.0008 - 0.0030
CEQ (IIW)	0.64

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

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

Mechanical properties

No guaranteed mechanical properties. The grade is supplied in the as-rolled condition only. Most applications require the material to be heat treated by the user. The properties achieved are dependent on the user's heat treatment process and must be established and confirmed by the user's own trials and evaluation

Weldability

Not recommended for welding

steel.com.au

To ensure you have the most current Data Sheet

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