

30MnB5

Excellent formability combined with strength after heat treatment

The 30MnB5 grade is a hot-rolled, uncoated product recently added to our family of boron manganese steels. These steel grades are easy to process into relatively complex shapes. After quenching and tempering, the typical carbon content of 0.30 will enable the final product to achieve exceptional hardness – offering reliable strength and abrasion resistance in demanding applications with tough duty cycles.

Homogeneous material properties allow trouble-free, repeatable processing. High levels of cleanliness help to ensure consistent formability and weldability.

The 30MnB5 grade is used to deliver reliable end product performance in a range of applications. These include many parts for the agricultural machinery (e.g. harrow discs and ploughs) and chassis components and stabilizer bars for the automotive sector.

Mechanical properties

Grade	Test Direction	Yield strength	Tensile strength	Elongation ¹ after fracture
		R _{eH} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)
30MnB5 Typical	L	375	600	24

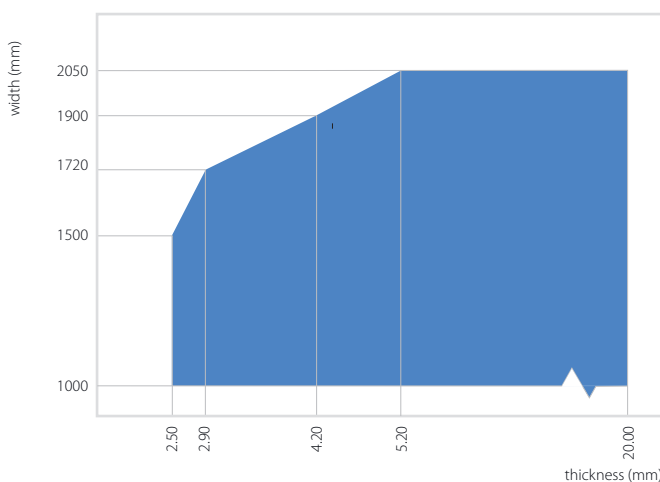
¹ The index of elongation (A%) refers to the type of tensile test sample

Chemical composition

	C	Mn	P	S	Si	Al	Cr	Ti	B
	min. - max.	min. - max.	max.	max.	min. - max.	min. - max.	min. - max.	min. - max.	min. - max.
30MnB5	0.27 - 0.33	1.10 - 1.30	0.02	0.01	0.10 - 0.30	0.02 - 0.06	0.10 - 0.40	0.02 - 0.04	0.001 - 0.005

All values are in weight%

Dimensional window of 30MnB5



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Please refer to Tata Steel or your local sales representative for dimensions outside of the matrix (in hot-rolled dry and hot-rolled pickled and oiled).

CEV

The typical carbon equivalent value is 0.52.

EN standards

Thickness tolerances are according to ½ EN 10051 or tighter (please inquire). Test certificates 2.2 / 3.1 are available according to EN 10204.

Product support

We want you to get the best from our 30MnB5 grade. Our technical engineers and trained sales staff are always happy to answer your questions on our range of boron manganese steels or other steel types. Our engineers are available to assist you with process and product design optimisation for improved throughput, yield and end product performance.

For more information please contact us at connect.engineering@tatasteel.com.

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