

34MnB5

Consistent formability combined with excellent strength after heat treatment

The 34MnB5 grade is a hot-rolled, uncoated product which is easy to process into relatively complex shapes. After quenching and tempering, the final product will achieve exceptional hardness – offering reliable strength and abrasion resistance in demanding applications with tough duty cycles. The increased carbon content compared to 26MnB5 will make 34MnB5 perform even better in challenging circumstances.

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

The 34MnB5 grade is used to deliver reliable end product performance in a range of applications. These include precision tube applications for the automotive sector, such as stabilisers, but also parts for agricultural equipment.

Mechanical properties

Grade	Test Direction	Yield strength	Tensile strength	Elongation ¹
		R _p (MPa)	R _m (MPa)	A ₅ (%)
34MnB5 Typical	L	400	650	23

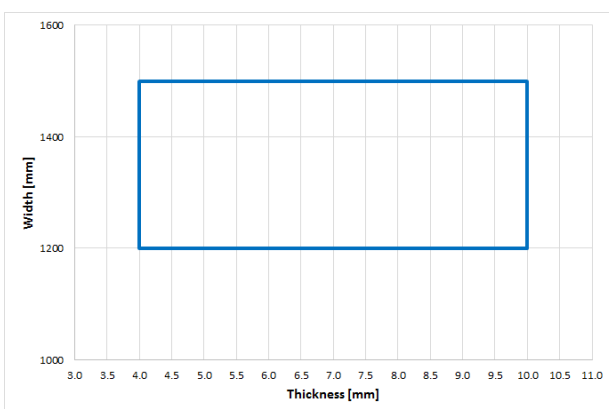
¹ The index of elongation (A%) refers to the type of tensile test sample

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.
34MnB5	0.33 - 0.37	1.20 - 1.40	0.015	0.010	0.20 - 0.25	0.020 - 0.060	0.100 - 0.180	0.020 - 0.035	0.0020 - 0.0035

All values are in weight%
For alternative chemistries, please contact your sales representative/technical support engineering/marketing.

Dimensional window of 34MnB5



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 0.60.

EN standards

Thickness tolerances are according to ½ EN 10051. Test certificates 2.2 / 3.1 are available according to EN 10204.

Product support

We want you to get the best from our 34MnB5 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.

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