

## 34MnB5

### Consistent formability combined with excellent strength after heat treatment

Steel grade 34MnB5 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

	Substrate	Test direction	Yield strength $R_p$ (N/mm <sup>2</sup> )	Tensile strength $R_m$ (N/mm <sup>2</sup> )	Elongation <sup>1</sup> $A_{50}$ (%)
34MnB5 Typical	Hot-rolled	L	400	650	23

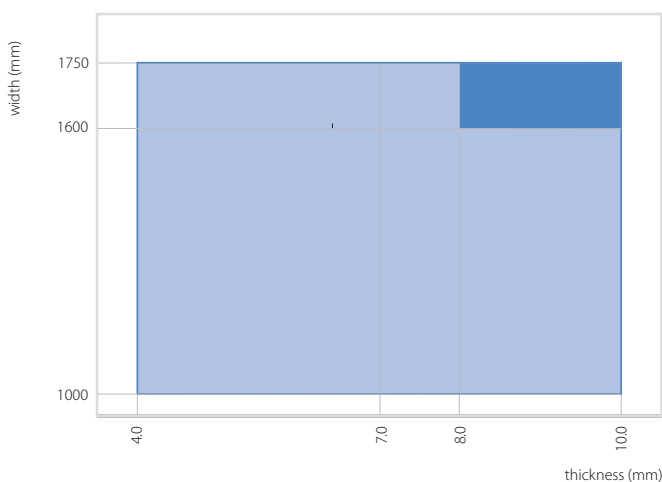
<sup>1</sup> The index of elongation (A%) refers to the type of tensile test sample

#### 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	0.330	0.370	1.200	1.400	0.015	0.010	0.200	0.250	0.020	0.060	0.100	0.200	0.020	0.035	0.0020	0.0035

All values are in weight%

#### Dimensional window of 34MnB5



- 34MnB5 Hot-rolled dry
- Pickled and oiled

Please contact Tata Steel or your local sales representative for alternative chemistries or dimensions which fall outside of the matrix.

#### CEV

The typical carbon equivalent value is 0.61.

#### Tolerances

Thickness tolerances are according to 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 any of your questions regarding our boron manganese family or any other steel types. Our engineers are available to assist you with process and product design optimisation for improved throughput, yield and end product performance.

#### Further information

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