TATA STEEL

38MnB5

Ultra high strength after heat treatment for longer lifespan

Steel grade 38MnB5 is the latest addition to a family of uncoated heat treatable steels that are designed for abrasive circumstances. The chemistry of this product has been carefully selected to meet the wear performance benchmark after quenching and tempering. The excellent surface combined with the consistent product quality makes this material easy to process 24/7. This grade has been tested throughout to ensure an excellent fatigue performance.

The 38MnB5 grade is predominantly used in agricultural equipment such as ploughs and harvesting machines, but can also be used in other applications and markets. The higher carbon content will guarantee a longer lifespan of the final product.

Mechanical properties

	Substrate	Test direction	Yield strength R_p (N/mm²)	Tensile strength R_m (N/mm²)	Elongation[1] A_{50} (%)
38MnB5 Typical	Hot-rolled	L	415	700	22.5

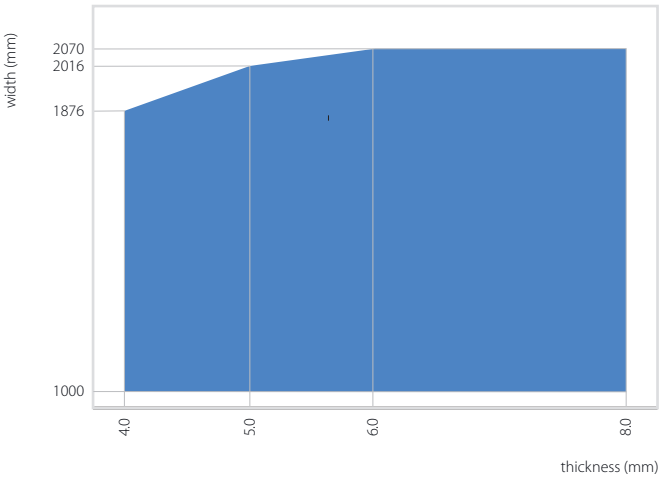
[1] The index of elongation (A%) refers to the type of tensile test sample

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.
38MnB5	0.360	0.400	1.200	1.300	0.020	0.010	0.200	0.300	0.020	0.060	0.200	0.300	0.020	0.035	0.0020	0.0035

All values are in weight%

Dimensional window of 38MnB5



■ 38MnB5 Hot-rolled dry

The unique widths and tailor-made lengths provide unlimited nesting opportunities for your final product. Please refer to Tata Steel or your local sales representative for dimensions which fall outside of the above matrix.

CEV

The typical carbon equivalent value is 0.65.

Tolerances

Thickness tolerances are according to EN 10051. Test certificates 2.2/3.1 are available according to EN 10204. Our chemistry is in line with EN 10083.

Product support

We want you to get the best from our 38MnB5 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 throughout, yield and end product performance.

Further information

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