

27MnCrB5-2

Unique dimensions offer higher yield

Steel grade 27MnCrB5-2 is a heat treatable steel that is designed for abrasive circumstances. The product meets the EN 10083 standard and the chemistry of this product has been carefully selected to meet the wear performance necessary after quenching and tempering. The excel-

lent surface in both hot-rolled as well as pickled and oiled 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 and is available in unique dimensions.

Mechanical properties

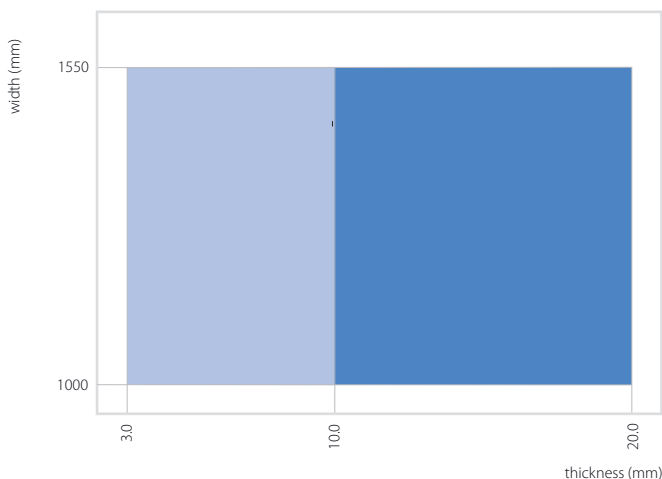
	Substrate	Test direction	Yield strength R_p (N/mm ²)	Tensile strength R_m (N/mm ²)	Elongation after fracture A (%)	
					$t \leq 5$ mm $L_0 = 80$ mm	$t > 5$ mm $L_0 = 5.65\sqrt{S_0}$
27MnCrB5-2 Typical	Hot-rolled	L	370	630	23	25

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.
27MnCrB5-2	0.260	0.300	1.200	1.350	0.020	0.010	0.150	0.300	0.020	0.060	0.300	0.600	0.020	0.035	0.0020	0.0035

All values are in weight%

Dimensional window of 27MnCrB5-2



- 27MnCrB5-2 Hot-rolled dry
- Pickled and oiled

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 call outside of the above matrix.

CEV

The typical carbon equivalent value is 0.57.

Tolerances

Grade 27MnCrB5-2 is produced according to EN 11083 and thickness tolerances are according to EN 10051. 90% of thickness tolerances of the strip length is guaranteed. ½ EN is possible on request. Test certificates 2.2/3.1 are available according to EN 10204.

Product support

We want you to get the best from our 27MnCrB5-2 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

E: connect.engineering@tatasteel.com

Tata Steel

Engineering

Wenckebachstraat 1

1951 JZ Velsen-Noord

The Netherlands

E: connect.engineering@tatasteelurope.com

www.tatasteelurope.com/engineering

E0121:EN:PDF:0323

www.tatasteelurope.com

While care has been taken to ensure that the information contained in this publication is accurate, neither Tata Steel, nor its subsidiaries, accept responsibility or liability for errors or for information which is found to be misleading. Before using products or services supplied or manufactured by Tata Steel and its subsidiaries, customers should satisfy themselves as to their suitability.

Copyright 2023
Tata Steel IJmuiden B.V.



Scan for the
latest product
information