

26MnB5 HR

Consistent formability combined with excellent strain hardening behaviour

The 26MnB5 grade is a hot-rolled, uncoated product that is primarily used for precision tubes. In its 'as-delivered' condition the material is considered 'soft', enabling the forming of relatively complex shapes. The final strength of the end product is provided during a heat treatment process, where the addition of boron leads to the strain hardenability of this carbon-manganese-chromium alloy. The 26MnB5 grade also features homogeneous material properties that enable consistent and predictable performance of the final component. The material is very clean, meaning the levels of impurities are carefully controlled, which helps with consistency in formability and weldability. This grade is used in a number of end product applications in the automotive sector including stabiliser bars, drive and gear shafts.

Mechanical properties

Grade	Test direction	Yield strength		Tensile strength		Elongation A_{dps}^1
		R_p (MPa)	R_m (MPa)	R_m (MPa)	R_m (MPa)	
26MnB5 HR		min	max	min	max	min
Guaranteed	L	300	480	500	700	20
Typical Tata Steel						
26MnB5 HR properties as-delivered	L	350		600		25

¹⁾ The index of elongation (A_{dps}) refers to the type of tensile sample

Chemical composition

	C		Mn		Si		P	S	Al		Cr		Ti		B	
	min	max.	min	max.	min	max.	max.	max.	min	max.	min	max.	min	max.	min	max.
26MnB5	0.24	0.28	1.20	1.40	0.20	0.25	0.020	0.006	0.020	0.060	0.10	0.20	0.020	0.035	0.0020	0.0035

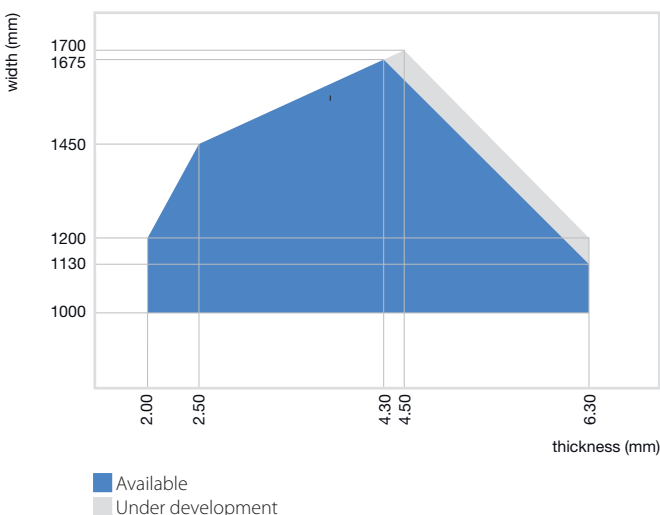
Values provided in mass percentages

Decarburization

The surface decarburisation of the 26MnB5 grade is limited to a maximum of 20µm.

Please refer to Tata Steel or your local sales representative for dimensions which fall outside of the matrix.

Dimensional window of 26MnB5 HR



Product support

We want you to get the best from grade 26MnB5 HR. Our technical engineers and trained sales staff are always happy to answer your questions on steel selection and application. 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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