

Valast® 400

Abrasion-resistant steel for long-lasting performance

Developed for construction, mining and agricultural applications, abrasion-resistant Valast 400 steel sheet withstands harsh wear and tear whilst maintaining lasting quality. User benefits include extended operational life and reduced maintenance costs.

Tata Steel's hot-rolled Valast 400 also enables production of lighter, more fuel-efficient vehicles or greater payloads if steel thicknesses are reduced in vehicles. A low CET ensures that this product is suitable for all conventional welding methods.

It's strip surface quality is excellent and offers potential for a reduction of shot blasting and pre-painting requirements.

Typical applications of hard-wearing Valast 400 include tipper and dump truck bodies, asphalt pavers, crushing and screening equipment, concrete mixer trucks and refuse trucks.

Please note: as Valast 400 is currently under development, the final dimensions and specifications in this preliminary datasheet may be subject to change. Our technical specialists will be happy to update you and answer your questions.

Mechanical properties

Valast 400	Hardness*	Yield strength**	Tensile strength**	Elongation**	Bending radius***
5 ≤ thickness ≤ 12 mm	HBW	R _{p0.2} (MPa)	R _m (MPa)	A ₅	
Guaranteed	370-430				3.5t
Typical value	400	1100	1300	10	-

* Brinell hardness (HBW) according to EN ISO 6506-1, on a milled surface 0.3 – 1 mm below surface. At least one test specimen per heat and 40 tons

** Mechanical properties are tested in longitudinal direction

*** Minimal radius at bending over 90° - bend line parallel to the rolling direction

Chemical composition

Valast 400	C	Mn	P	S	Si	Al _{sol}	Nb	V	Ti	Mo	B
Guaranteed	≤ 0.190	≤ 1.100	≤ 0.020	≤ 0.005	≤ 0.100	≥ 0.015	≤ 0.060	≤ 0.100	≤ 0.060	≤ 0.250	≤ 0.005

All values are in weight%

Impact strength

Direction	Temperature	Guaranteed	Typical
Longitudinal	-40°C	≥ 34 J/cm ² *	90 J/cm ²
	-20°C		120 J/cm ²
Transverse	-40°C		50 J/cm ²
	-20°C	≥ 50 J/cm ² *	75 J/cm ²

* Guaranteed values correspond to 27J/40J for a full size 10 x 10 mm test piece

Weldability

We invested in a research and development programme to ensure a low CET of less than 0.30 in our Valast® steel to ensure all conventional welding methods can be used.

CEV max	CET max	PCM max
0.42	0.30	0.27

Tolerances

Thickness

Complies with ½ EN 10051.

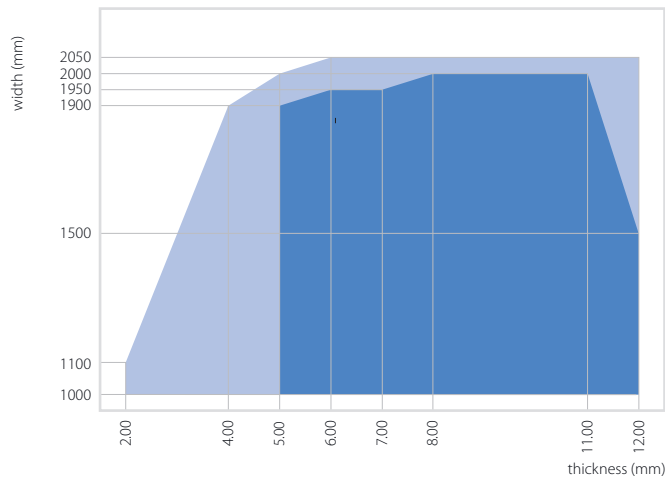
Length, width, shape and flatness

Complies with EN 10051. Tighter tolerances available on request.

Surface

As a hot-rolled strip product Valast offers superior surface quality when compared with reversing mill plate in 'as rolled' condition.

Dimensional window of Valast® 400



- Available
- Please contact us for availability

Product support

Our proactive customer technical services team offers technical consultancy and practical, hands-on support to help you to get the best from Valast 400. Using our steel know-how and application knowledge, we can assist you in maximising processing efficiency and end product performance. Please contact us for enquiries referring to material no. 1.8715.

Further information

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