

Valast® 450

Abrasion resistant steel for long-lasting performance

Developed for construction, mining and agricultural applications, abrasion resistant Valast 450 steel sheet withstands harsh wear and tear whilst maintaining lasting quality. With a typical hardness of 450 HBW, abrasion resistance is up to 2.5 times greater than a Grade 50 structural steel*. User benefits include extended operational life and reduced maintenance costs. Valast 450 also enables production of lighter, more fuel-efficient vehicles or greater payloads if steel thicknesses are reduced in vehicles.

Valast 450 is available in extra-wide strip dimensions (81") and customized lengths. Combined with consistent flatness, this allows

efficient, repeatable processing with improved nesting yield, and minimized waste and part rejection rate. A low CET ensures that Valast 450 is suitable for all conventional welding methods. Tata Steel's hot-rolled Valast 450 strip surface quality offers potential for a reduction of shot blasting and pre-painting requirements.

Typical applications of hard-wearing Valast 450 include tipper and dumper truck bodies, asphalt pavers, crushing and screening equipment, concrete mixer trucks and refuse trucks.

*Abrasive Wear Test ASTM G65

Mechanical properties

Valast 450	Hardness	Yield strength*	Tensile strength*	Elongation	Bending radius**
0.118" ≤ thickness ≤ 0.315"	HBW	MPa (ksi)	MPa (ksi)	ASTM (2") %	
Guaranteed	420-480				4.5t
Typical value	450	1250 (181)	1475 (214)	10	-

* Mechanical properties are tested in longitudinal direction. Please contact us for information outside of the specified thickness range

** Minimal radius at bending over 90° - bend line parallel to the rolling direction. A tighter bending radius might be possible for your product application. Please contact us to discuss

Chemical composition

Valast 450	C	Mn	P	S	Si	Al _{sol}	Nb	V	Ti	Mo	B
Guaranteed	≤ 0.230	≤ 1.000	≤ 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
Longitudinal	-40°F	≥ 20 ft.lbs

Tolerances on thickness

Tolerances for strip comply with ASTM A568 and ASTM A635. Tighter tolerances are available on request.

Weldability

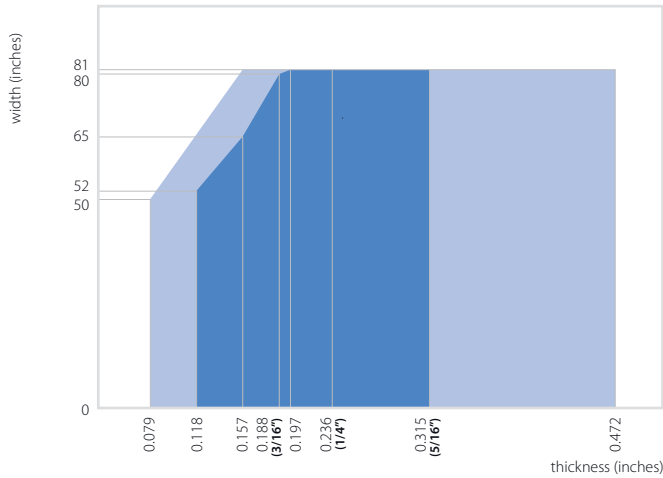
Tata Steel's investment in a research and development programme has ensured a low CET of less than 0.33 in Valast 450 steel – ensuring that all conventional welding methods can be used.

CEV max	CET max	PCM max
0.45	0.33	0.32

Surface

Valast 450 hot-rolled strip offers superior surface quality when compared with reversing mill plate in 'as rolled' condition. This potentially offers a reduction of shot blasting and pre-painting requirements.

Dimensional window of Valast® 450



- Available
- Please contact for availability

For coil orders below 60" width, a minimum order quantity may apply. Please contact us to discuss.

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 450. Using our steel know-how and application knowledge, we can assist you in maximising processing efficiency and end product performance.

www.tatasteeleurope.com

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Tata Steel Europe Limited

Tata Steel
Engineering
PO Box 10.000
1970 CA IJmuiden
The Netherlands
Europe
E: connect.engineering@tatasteeleurope.com
www.tatasteeleurope.com/america

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