DuraX®
WEAR PLATE

DuraX®400

General Product Description

The versatile steel that resists wear and abrasion.

DuraX®400 is an abrasion-resistant steel with a nominal hardness of 400 HBW. DuraX®400 is a versatile wear-resistant steel. As a result of its high toughness, good bendability and weldability, this steel can be used in structures with moderate wear.

Mechanical Properties

Hardness HBW , guaranteed	Yield Strength Mpa, typical	Tensile Strength Mpa, typical	Elongation A50 , % , typical
370 - 430	1000	1250	12 (transverse)

Brinell hardness on a milled surface 1 - 2.5 mm below surface, average of three test points.

At least one test specimen per batch and 35 tons, on the same grade, the same Heat No., the same thickness and the same delivery condition .

Tensile testing is performed between 4 - 60 mm.

Impact Properties

Impact Properties Longitudinal test, typical Charpy-V 10x10 mm test specimen	Test temperature °C	Impact energy J
	-20	30

Average of three tests . Single value minimum 70% of specified average. Impact testing is performed between 6 - 60 mm. For thicknesses less than 6 - 11.9 mm , subsize Charpy-V specimens are used.

Chemical Composition (ladle analysis)

Thickness mm	C max	Si max	Mn max	P max	S max	Cr max	Ni max	Mo max	B max	CEV typv.	CET typv.
	%	%	%	%	%	%	%	%	%		
4 - 20	0.18	0.70	1.60	0.0250	0.010	0.80	0.30	0.80	0.0040	0.44	0.30
(20) - (40)	0.20	0.70	1.60	0.0250	0.010	1.00	0.60	1.00	0.0040	0.52	0.34
40 - 60	0.22	0.70	1.60	0.0250	0.010	1.20	0.90	1.20	0.0040	0.61	0.36
(60) - 110*	0.22	0.70	1.60	0.0250	0.010	1.20	1.20	1.20	0.0040	0.65	0.41

* Up to 130 mm available upon request

CEV = C + Mn / 6 + (Cr + Mo + V) / 5 + (Cu + Ni) / 15

CET = C + (Mn + Mo) / 10 + (Cr + Cu) / 20 + Ni / 40

Tolerance

Thickness tolerance

According to EN 10029 Class B, and offer more narrow tolerances upon request

Shape, length, width tolerances

According to EN 10029 .

THWAINY INDUSTRIES

Flatness Tolerance

According to EN10029 Class-N type-H .

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Ultrasonic Testing

According to EN10160:2004 Class S1E1 .

Recommendations

The properties of the delivery condition can not be retained after exposure to service or preheating retained after exposure to service or preheating temperatures in excess of 250 ◦C