A TO Z STEELLOYS PVT LTD

TUFFOX 400

ABRASION & WEAR RESISTANT PLATE

DATA SHEET

TUFFOX 400 is an Abrasion resistant plate with a hardness of 400BHN, made for applications where abrasion resistance properties are highly demanding combined with good cold bending properties. TUFFOX 400 offers very good weldability.

Applications

Excavators, crushers, bulldozers, loaders, knives, cutting edges, sievers, feeders, measuring pockets, skips, buckets, gears, sprockets, dump trucks, industrial trucks, lorries, slurry pipe systems, screw conveyors, presses etc

Chemical Composition

Plate Thickness mm	C max %	Si max %	Mn max %	P max %	S max %	Cr max %	Ni max %	Mo max %	B max %	V max %	Ti max %	Al min %	CEV typical
4-25	0.20	0.70	1.60	0.025	0.025	1.00	0.25	0.25	0.005	0.08	0.08	0.02	0.46
26-80	0.20	0.70	1.60	0.025	0.025	1.50	0.25	0.25	0.005	0.08	0.08	0.02	0.55

$$CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

The steel is grain refined

Hardness

BHN (@3000Kg load) (as per EN ISO 6506-1)
360 - 440

Mechanical Properties

Properties	Typical
0.2% Proof Stress (MPa)	1000
Ultimate Tensile Strength (MPa)	1250
Elongation GL-50 (%)	10
Charpy Impact (Longitudnal) -20^{0}C	45J

Delivery Condition

Quenched

Dimensional Range

Thickness	4 to 80 mm
Width	1000/1250/1500/1800 mm (Any specific width up to 1800 mm can be produced under special agreement)
Length	2500 - 7000 mm

Tolerance on Dimension and shape

Thickness	EN10029 class A
Width & Length	EN10029
Flatness	Class N : Steel type H

Surface Properties

According to EN10163-2: Class A.

Heat treatment and Fabrication

TUFFOX 400 has obtained its mechanical properties by quenching and when necessary by means of subsequent tempering. The properties as per delivery condition can not be retained after exposure to service or preheating temperature in excess of 250^{0}c

For cutting the plate, flame cutting / plasma / laser / water jet may be used.

The steel is weldable both manually and automatically. The normal instruction for the welding of high strength steels also apply to this steel and best result is obtained with low hydrogen welding consumables and methods. Pre heating is not generally necessary for welding with austenitic filler metals

The product made of this steel are suitable for cold bending provided, that consideration is given to the high hardness. The formability of steel decreases with increasing hardness.

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