



TUFFOX 500

ABRASION & WEAR RESISTANT PLATE

DATA SHEET

TUFFOX 500 is an Abrasion resistant plate with a hardness of 500BHN, made for applications where abrasion resistance properties are highly demanding combined with good cold bending properties. TUFFOX 500 offers very good weldability.

Applications Excavators, crushers, bulldozers, loaders, knives, cutting edges, sievers, feeders, measuring pockets, skips, buckets, gears, sprockets, dumptrucks, 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	0.29	0.70	1.60	0.025	0.025	1.00	0.50	0.30	0.005	0.08	0.08	0.02	0.66
26-80	0.30	0.70	1.60	0.025	0.025	1.50	1.00	0.60	0.005	0.08	0.08	0.02	0.74	

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

The steel is grain refined

Hardness BHN (@3000Kg Load) (As per EN ISO 6506-1)
450 – 540

Mechanical Properties	Properties	Typical
	0.2% Proof Stress (MPa)	1250
	Ultimate Tensile Strength (MPa)	1600
	Elongation GL-50 (%)	9
	Charpy Impact (Longitudnal) -20°C	30J

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 500 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°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.