

ABRASION RESISTANT PLATE

Hardox HiTuf is an abrasion resistant plate with an extremely high crack resistance. Hardox HiTuf has a hardness of about 350 HBW and is intended for applications with extra high demands on the combination of toughness and abrasion resistance.

Applications Cutting edges, demolition tools and rippers.

Chemical Composition

(ladle analysis)

Plate thickness mm	C max	Si max	Mn %	P max	S max	Cr max	Ni max	Mo max	V max	Nb max	B max	CEV typv.	CET typv.
40-70	0,20	0,50	1,60	0,020	0,010	0,70	2,0	0,70	0,060	0,04	0,005	0,55	0,36
(70)-120	0,20	0,60	1,60	0,020	0,010	0,70	2,0	0,70	0,090	0,04	0,005	0,64	0,39

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

$$CET = C + \frac{Mn + Mo}{10} + \frac{Cr + Cu}{20} + \frac{Ni}{40}$$

The steel is grain refined.

Hardness HBW
310-370

Mechanical Properties

Typical values

Plate thickness mm	Yield strength R _{p0,2} MPa	Tensile strength R _m MPa	Elongation A ₅ %
40 - 70	950	980	16
(70) - 120	850	900	16

Impact Properties

Typical values

Plate thickness mm	Testing temperature °C	Impact energy 1/4 depth Charpy-V, longitudinal J
40 - 70	-40	95
(70) - 120	-40	70

Testing Brinell hardness, HBW according to EN ISO 6506-1, on a milled surface 0,5-3 mm below plate surface per heat and 40 tons. Tests are made for every variation of 15 mm in the thickness of plates from the same heat.

Delivery Conditions Q.

Dimensions Hardox HiTuf is supplied in plate thicknesses of 40-120 mm. More detailed information on dimensions is provided in our brochure 41-General product information Weldox, Hardox, Armax and Toolox-UK.

Tolerances

Thickness tolerances according to SSAB Oxelösund thickness precision guarantee AccuRollTech™. - AccuRollTech™ meets the requirements of EN 10 029 Class A, but offers more narrow tolerances. More detailed information is given in our brochure 41-General product information Weldox, Hardox, ArmoX and Toolox-UK.

According to EN 10 029.
- Tolerances on shape, length and width.
- Tolerances on flatness according to Class N (Normal tolerances).

Surface Properties

According to EN 10 163-2
- Requirements according to Class A.
- Repair conditions according to Subclass 1.
(Repair welding is allowed)

General Technical Delivery Requirement

According to our brochure 41-General product information Weldox, Hardox, ArmoX and Toolox-UK.

Heat Treatment and Fabrication

Hardox HiTuf has obtained its mechanical properties by quenching and tempering. The properties of the delivery condition can not be retained after exposure to service temperatures or tempering processes in excess of 450 °C (840 °F).

For information concerning welding and fabrication, see our brochures on www.hardox.com or consult our Technical Customer Service.

Appropriate health and safety precautions must be taken when welding, cutting, grinding or otherwise working on the product. Grinding, especially of primer coated plates, may produce dust with high particle concentration. Our Technical Customer Service Department will provide further information on request.