HARDOX®
WEAR PLATE

Hardox® Extreme

General Product Description

Hardox®Extreme steel for extreme abrasion resistance.

Hardox® Extreme is the world's hardest wear plate with a nominal hardness of 60 HRC (Rockwell) and typical hardness of 650-700 HBW.

Hardox® Extreme is an abrasion resistant steel with a nominal hardness of 60 HRC, intended for applications with extreme high demands on abrasion resistance. Typical applications is liner plates, etc.

Dimension Range

Hardox® Extreme is available as plate in thicknesses of 8.0 – 19.0 mm, up to 2000 mm in width and up to 14630 mm in length, preferred widths are 2000 x 4000 mm, other width on request. More detailed information on dimensions is provided in the dimension program.

Mechanical Properties

Thickness (mm)	Typical Hardness (HRC)
8.0 - 19.0	57 - 63

Chemical Composition

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Cr (max %)	Ni (max %)	Mo (max %)	B (max %)
0.47	0.50	1.40	0.015	0.010	1.20	2.50	0.80	0.005

The steel is grain refined.

Carbon Equivalent CET(CEV)

Thickness (mm)	8.0 - 19.0
Max CET(CEV)	0.57 (0.69)
Typical CET(CEV)	0.55 (0.66)

$$CET = C + \frac{Mn + Mo}{10} + \frac{Cr + Cu}{20} + \frac{Ni}{40} \qquad CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

Tolerances

More details are given in SSAB´s brochure Hardox® Guarantees or on www.ssab.com.

SSAB

Thickness

Tolerances according to Hardox® Thickness Guarantees. Hardox® Guarantees meets the requirements of EN 10 029 Class A but offers more narrow tolerances.

Length and Width

According to SSAB's dimensions program. Tolerances conforms to EN 10 029 or to SSAB's standard after agreement.

Shape

Tolerance according to EN 10 029.

Flatness

Tolerances according to Hardox® Flatness Guarantee class E, which are more restrictive than EN 10 029.

Surface Properties

EN 10163-2 Class A Subclass 1

Delivery Conditions

The delivery condition is Q (Quenched). The plates are delivered with sheared or thermally cut edges. Untrimmed edges after agreement.

Delivery requirements can be found in SSAB's brochure Hardox® Guarantees or at www.ssab.com.

Fabrication and Other Recommendations

Welding, bending and machining.

Recommendations can be found in SSAB's brochures on www.hardox.com or consult Tech Support, techsupport@ssab.com.

Hardox® Extreme is not intended for further heat treatment. It has obtained its mechanical properties by quenching and when necessary by means of subsequent tempering. The properties of the delivery condition cannot be retained after exposure to temperatures in excess of 150ºC.

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.

Contact Information

www.ssab.com/contact