

WELDOX®

TechSupport

Information from
SSAB Oxelösund

#49

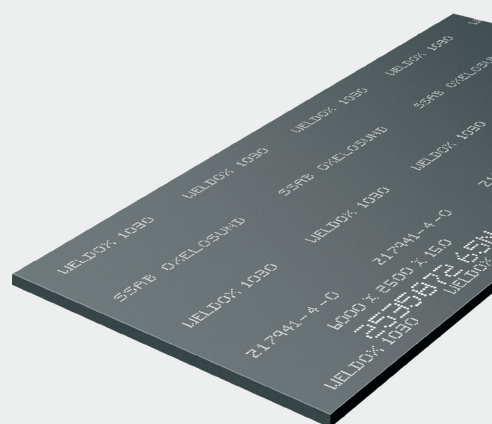
WELDOX 1030

WELDOX 1030 is the world's first structural steel plate with a strength of 1030 MPa. The new high performance product is developed for Original Equipment Manufacturers as a direct response to their requests for a structural steel plate in this range. WELDOX 1030 is mainly intended for load carrying applications like mobile cranes and truck cranes.

WELDOX 1030 is a general structural steel with a minimum yield strength of 1030 MPa intended for load carrying structures with very high demands on low weight.

WELDOX 1030 is delivered with a plate thickness between 4 and 12 mm which is sufficient to cover 98% of today's market. Like all WELDOX products, thickness tolerances are in accordance with our AccuRollTech™ precision guarantee. See more details at www.accurolltech.com.

WELDOX 1030 combines high strength with good weldability and bendability, due to an optimized production process. The steel is also very pure and tough due to unique achievements in the secondary metallurgy.



Mechanical properties

Plate thickness mm	Yield strength $R_{p0,2}$, min, MPa ¹⁾	Tensile strength R_m , MPa	Elongation ²⁾ A_5 min, %
4,0 - 4,9	1030	1200 - 1500	8
5,0 - 12,0	1030	1200 - 1500	10

¹⁾ 1 MPa = 1 N/mm²

²⁾ For transverse test pieces

Chemical composition

C*	Si*	Mn*	P	S	B*	Nb*	Cr*	V*	Cu	Ti	Al*	Mo*	Ni*	N
max %	max %	max %	max %	max %	max %	max %	max %	max %	max %	max %	total min %	max %	max %	max %
0,21	0,50	1,60	0,020	0,005	0,005	0,04	0,80	0,08	0,10	0,02	0,020	0,70	2,0	0,010

* Intentional alloying elements. The steel is grain refined.

Carbon equivalents

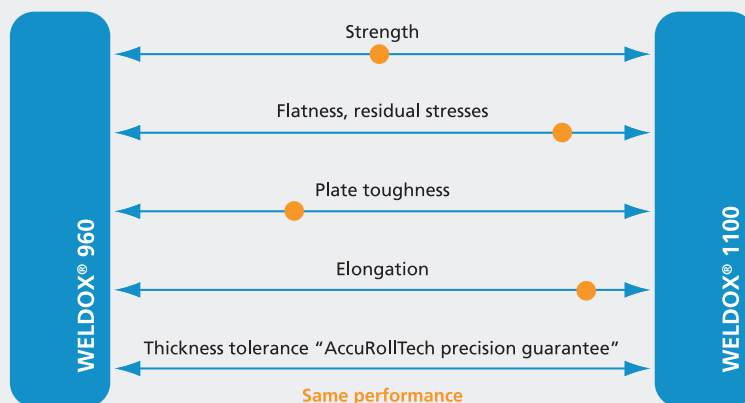
Plate Thickness	CEV	CET
	Typical values %	
8 mm	0,53	0,34
12 mm	0,59	0,35

This leaflet contains general suggestions and calculation models. SSAB Oxelösund AB does hereby expressly exclude any liability whatsoever for their suitability for individual applications. It is the responsibility of the user of the manual to adapt the recommendations contained herein to the requirements of individual applications.

The next step towards higher yield strength

There is an increased interest for structural steel plate with extra high yield strength. Today, customers move from 900/960 MPa towards 1100 MPa and higher. WELDOX 1030 makes each step shorter and easier.

WELDOX 1030 product properties

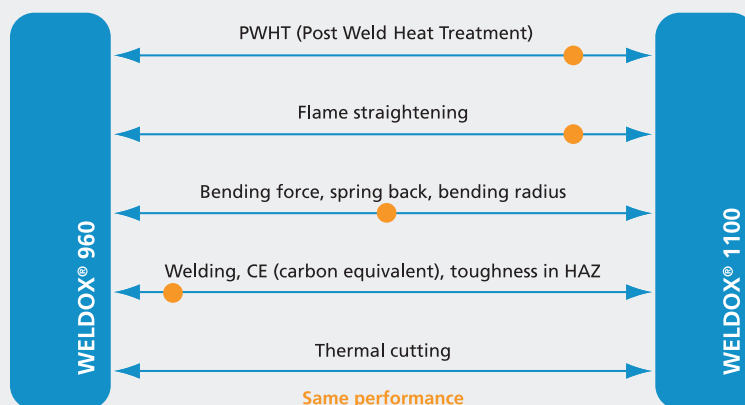


The optimum mix between WELDOX 960 and WELDOX 1100

Increased flexibility

The price and properties of WELDOX 1030 is the best possible combination between WELDOX 960 and WELDOX 1100. It gives you more flexibility to optimize your product and workshop performance, and enables you to select the exact strength you need. Now you can more easily combine plates of different strengths.

WELDOX 1030 in the workshop

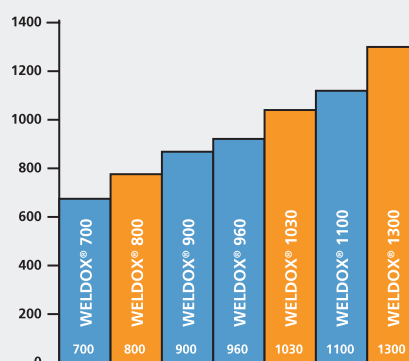


Excellent properties for workshop performance

More complete product range

WELDOX 1030 is the world's first structural steel with a yield strength of 1030 MPa and the next step in our mission to offer the most complete product range to users of structural steel plate. We introduced WELDOX 800 last year and now WELDOX 1030 follows suite. In addition, WELDOX 1300 has been introduced for trial purposes to some customers during 2005. The strongest structural steel plate ever in regular production.

New WELDOX grades 2004 - 2005



The most complete product range in the market

**Free consultation by
the Conceptual Design Group**

The Conceptual Design Group helps you to develop your products with WELDOX 1030, and to evaluate fatigue, buckling and deflection. They also serve as a sounding board in areas like FEM-analysis and Damage Tolerant Design.

Contact your application engineer to help initiate a project. The service is available to all customers.



*CDG brings you knowledge, experience and creativity.
From left to right: Niklas Bylund, Bo Lindström and Torbjörn Narström.*

WELDOX®

STRUCTURAL STEEL PLATE

WELDOX Structural Steel Plate; Only from SSAB Oxelösund.
WELDOX is a registered trademark of SSAB Oxelösund.

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