SSAB Boron

OPTIMIZED FOR YOU AND QUENCH HARDENING

If you've experienced production disturbances due to varying steel properties, we recommend changing to SSAB Boron.

SSAB BORON
GUARANTEED TO MAKE YOUR PRODUCTION EASIER AND MORE COST EFFICIENT

Photo courtesy of Olofsfors AB, showing ECO-TRACKS, model EVO-Soft.

SSAB Boron optimized for you

- Superior steel cleanliness
- Optimized and consistent chemistry
- Narrow and consistent dimensional tolerances
- Excellent behavior in mechanical and thermal cutting
- Problem-free punching and machining
- Predictable and repetitive behavior in quench hardening
- Outstanding resistance to wear and impacts
- Extended service life

SSAB Boron stands for a new and wider range of advanced steel grades for quench and press hardening. It will improve overall productivity, yield and end product quality. It's the right choice for trouble-free and cost-efficient performance in heat-treatment processes.

Hot rolled plate

Hot rolled coil and sheet

Cold rolled coil and sheet

Tubes and sections

Excellence starts with clean steel
Narrow windows for each chemical element characterize SSAB Boron. Sulfur and phosphorus contents are much lower than the EN 10083-3 maximum for standard boron steel grades.

SSAB Boron is guaranteed to have narrow dimensional tolerances, which will help to maximize your workshop's efficiency.

Every day you work with SSAB Boron, it will behave as the day before. No need to find the optimal parameters for each and every delivery of steel.

The optimized chemistry and consistent dimensional tolerances result in a material that delivers excellent performance during the entire production process, shortens lead times and secures the desired quality of the final products.

Photo courtesy of Olofsfors AB, showing ECO-TRACKS model EVO-Soft.

EASY TO SHAPE AND QUENCH

SSAB Boron steels are designed to minimize the risk of micro-cracking in mechanical workshop processing. The superior cleanliness and fine-grain microstructure allow for critical operations such as punching, shearing and stamping in as-rolled condition. Mechanical processing and formability can be improved even further when using SSAB Boron in annealed delivery condition.

The consistent and tightly controlled chemical composition allows for sophisticated quench hardening, where hardness and toughness can be directed to the critical areas of the end product. SSAB Boron also performs extremely well in press-hardening processes.

With SSAB Boron you can continue with any quenching process you use today and expect highly predictable results.

Quenching in oil, water-polymer solutions or plain water works equally fine, with the latter providing additional environmental benefits.

SSAB Boron minimizes or eliminates the need for tempering after quenching. This reduces energy costs and increases efficiency.

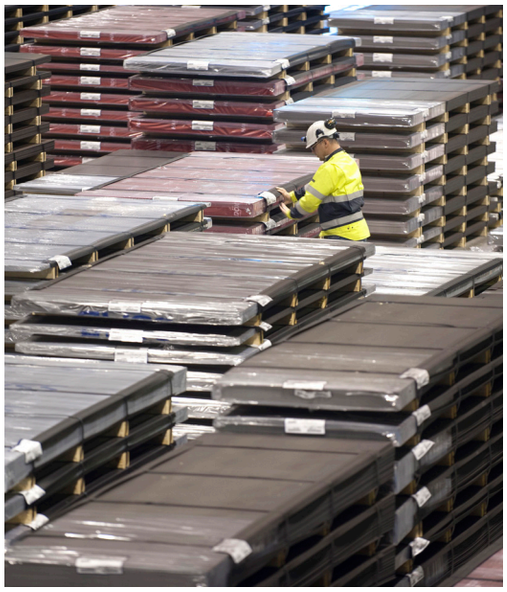
DIRECT ACCESS TO EXPERTISE AND TECHNICAL SUPPORT

When you purchase SSAB Boron, you automatically gain access to SSAB's extensive support resources. You can always contact SSAB via phone or email for support on material choice, heat treatment, workshop recommendations and other technical issues.

We stand ready to offer optimized products and services that add the kind of value to your business that really matters. Our dedicated Tech Support people provide a strong local presence worldwide.

They are happy to be your partner in long term projects as well as visit your site at short notice for technical assistance.

SSAB at your service
With SSAB, you're just a phone call or email away from great service. Contact us if you would like to attend a technical seminar, or need a trial delivery to test the performance of SSAB Boron in your production.



DELIVERED AS YOU LIKE IT

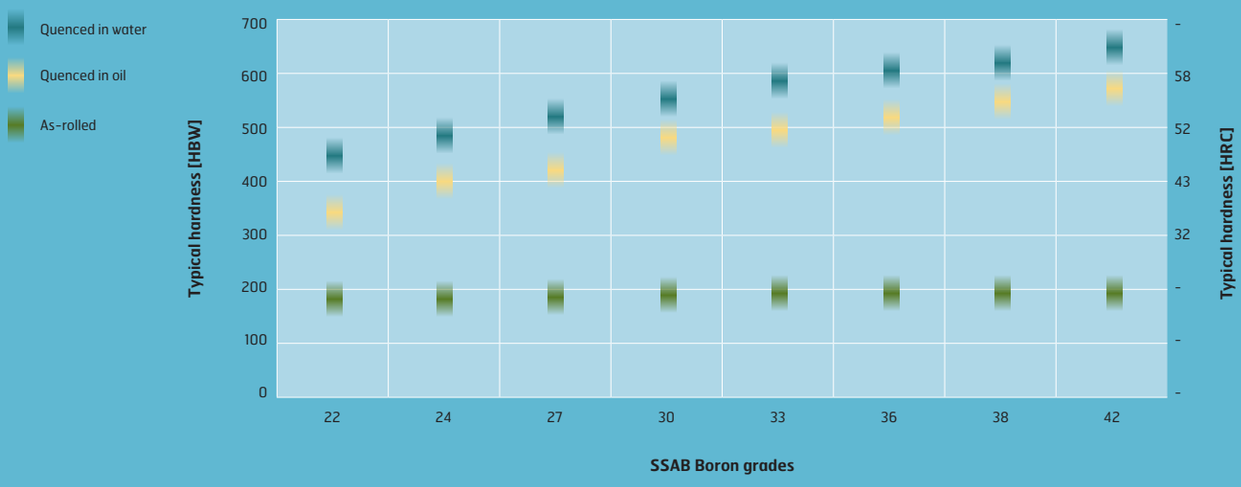
SSAB Boron comes in a wide range of steel grades with carbon contents from 0.22–0.42%. It is available as hot rolled plate; hot rolled coil, slit coil and sheet; cold rolled coil, slit coil and sheet; tubes and sections. Hot rolled strip products are available in black, pickled and annealed condition. Tubes and sections can be produced from hot and cold rolled base material.

Many ways to get your steel
In order to suit your production and logistic preferences, SSAB Boron can be sourced directly from our mills or through our stocks. Please consult your local SSAB contact to design the optimal delivery solution for you.

SSAB BORON – PROPERTIES GUARANTEED TO OPTIMIZE RESULTS

Steel grade	Delivery condition	Yield strength	Tensile strength	Elongation	Hardness	Dimensions			
	(+A) = Annealed	Re [MPa]	Rm [MPa]	A [%]	[HBW]	Thickness [mm]		Width [mm]	
Hot rolled plate		Typical	Typical	Typical	Typical	min	max	min	max
SSAB Boron 22	As rolled	400	600	22	170	6.0	80.0	1000	3300
SSAB Boron 24	As rolled	400	600	22	170	6.0	80.0	1000	3300
SSAB Boron 27	As rolled	420	620	22	170	6.0	80.0	1000	3300
SSAB Boron 27Cr	As rolled	420	620	22	170	5.0	40.0	1000	3300
SSAB Boron 30	As rolled	420	620	20	190	6.0	80.0	1000	3300
Hot rolled coil, slit coil, sheet									
SSAB Boron 22	As rolled (+A)	400 (350)	600 (530)	22 (25)	170 (165)	2.0	15.0 (12.0)	25	1800 (1600)
SSAB Boron 24	As rolled (+A)	400 (355)	600 (535)	22 (25)	170 (165)	2.0	16.0 (12.0)	25	1800 (1600)
SSAB Boron 27	As rolled (+A)	420 (355)	620 (535)	22 (25)	170 (165)	2.0	16.0 (12.0)	25	1800 (1600)
SSAB Boron 27Cr	As rolled (+A)	420 (355)	620 (535)	22 (25)	170 (165)	2.0	16.0 (12.0)	25	1800 (1600)
SSAB Boron 30	As rolled (+A)	420 (360)	620 (550)	20 (25)	190 (170)	2.0	16.0 (12.0)	25	1800 (1600)
SSAB Boron 33	As rolled (+A)	420 (355)	620 (560)	20 (24)	190 (175)	2.0	16.0 (12.0)	25	1800 (1600)
SSAB Boron 33Cr	As rolled (+A)	420 (365)	620 (560)	20 (24)	190 (175)	2.0	16.0 (12.0)	25	1800 (1600)
SSAB Boron 36	As rolled (+A)	420 (365)	620 (560)	19 (24)	190 (175)	2.0	15.0 (12.0)	25	1800 (1600)
SSAB Boron 38	As rolled (+A)	430 (370)	630 (570)	19 (24)	190 (175)	2.0	13.0 (12.0)	25	1800 (1600)
SSAB Boron 42	As rolled (+A)	440 (370)	660 (570)	18 (24)	190 (175)	2.0	13.0 (12.0)	25	1800 (1600)
Cold rolled coil, slit coil, sheet									
SSAB Boron 22	Cold rolled +A	350	500	27	160	0.7	3.0	30	1530
SSAB Boron 27Cr	Cold rolled +A	400	550	25	165	1.0	3.0	30	1530
SSAB Boron 38	Cold rolled +A	350	500	27	160	1.0	3.0	30	1530

Steel grade	Shape	Yield strength	Tensile strength	Elongation	Hardness	Dimensions			
		Re [MPa]	Rm [MPa]	A [%]	[HBW]	Thickness [mm]		Outside Ø/ Width [mm]	
Tubes		Typical	Typical	Typical	Typical	min	max	min	max
SSAB Boron Tube 24	Circular	470	530	22	160	1.0	3.0	15.0	133.0
SSAB Boron Tube 24	Square	470	530	22	160	1.0	3.0	19.0 x 19.0	100.0 x 100.0
SSAB Boron Tube 24	Rectangular	470	530	22	160	1.0	3.0	20.0 x 15.0	150.0 x 50.0



For information about individual grades, please refer to the documentation available at ssab.com or from your SSAB sales contact. SSAB reserves the right to change specifications without prior notice. The tables are for reference only. The product data sheet assigned to a specific product holds all valid and guaranteed properties.

OPTIMIZE YOUR BUSINESS CONTACT SSAB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SSAB is a Nordic and US-based steel company. SSAB offers value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has employees in over 50 countries. SSAB has production facilities in Sweden, Finland and the US. SSAB is listed on Nasdaq Stockholm and has a secondary listing on Nasdaq Helsinki.

889-en - SSAB Boron V2-2017 AplusM

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