

SSAB Domex®

OPTIMIZED FOR YOU AND STRUCTURES



SSAB

If other steels
give you a
hard time, try
SSAB Domex®.
It's optimized
to improve your
production and
end-product
performance.



SSAB DOMEX® DESIGNED TO MEET YOUR HIGHEST EXPECTATIONS



SSAB Domex® optimized for you

- ▶ Consistent product quality
- ▶ Excellent cold forming properties
- ▶ Narrower tolerances
- ▶ Improved workshop efficiency
- ▶ Wider welding process window
- ▶ More satisfied customers
- ▶ High availability
- ▶ Short delivery times



SSAB Domex® is a wide range of versatile structural steels that deliver excellent cold forming, machining and welding performance. SSAB Domex® grades undergo inspection at several points during production to ensure they comply with our rigorous quality requirements for mechanical properties and dimensions.

The problem-solver

Every day you work with SSAB Domex®, you will experience the benefits of our extensive quality control: high productivity, reliable performance, and consistent quality of your end products. SSAB Domex® is optimized to improve your production. With SSAB Domex®, you can reduce machine setup time. Yesterday's settings will produce the same result today, and for days to come.

SSAB Domex® has a more tightly controlled chemical composition and more narrow tolerances for thickness, flatness and bending properties than specified by most common standards. This is what you get by default when ordering SSAB Domex®.

SSAB Domex® always delivers predictable performance in all kinds of mechanical and thermal processing. There's no easier way to improve business than using a material you can rely on, every day of the week.



Hot rolled plate



Hot rolled strip



Cold rolled strip



Metal-coated



Tubes and sections

For SSAB Domex® grades, see last spread in the brochure and ssab.com



HIGH RELIABILITY HIGH VERSATILITY

SSAB Domex® is made from extremely clean steel. The fine grain structure achieved by the carefully controlled production process creates world-class mechanical and cold-forming properties. This is unique for an all-round structural steel.



Whatever the thickness – ranging from 0.4 mm to 70 mm – SSAB Domex® is easy to work with. The steel's high purity and fine grain structure make for outstanding repeatability, excellent cutting, bending, and welding characteristics in the workshop.

The impact toughness guarantee of SSAB Domex® is better than the required values in the European norm, making it the safer choice also in low temperatures.

A wider window for welding

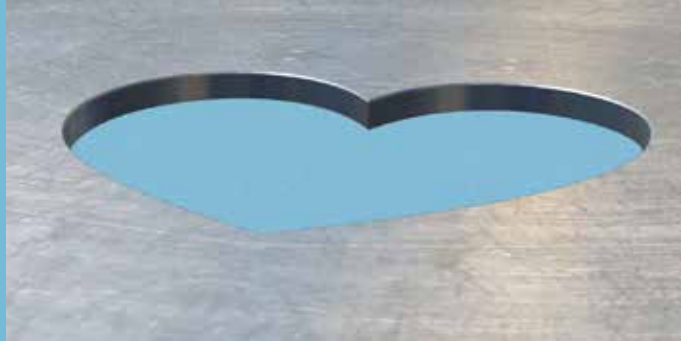
Because SSAB Domex® is a pure steel grade, it also features excellent welding performance. All SSAB Domex® grades can be welded with conventional manual and automatic welding methods. You have a wide window for heat input and working temperature, allowing for high productivity and short lead times in the workshop.

SSAB DOMEX® PLUS SPEEDS UP PRODUCTION

SSAB Domex® Plus is part of a new generation of high-strength – low alloy steels (HSLA). The steel adds a new level of performance for stamping, punching, slitting and complicated die forming. SSAB Domex® Plus is particularly well suited to high-volume automated production lines helping you to keep the highest productivity.

Practically burr-free

Thanks to the steel's fine microstructure the edges show practically no burrs or ridges in mechanical cutting and punching. The cut surface is very smooth and free from micro-cracks, also at very high cutting speeds.



Bend and press without cracks

SSAB Domex® Plus has superior local formability. High-stress bending and forming can be performed without cracks, improving yield and quality of the final product drastically.

The tool-friendly steel

SSAB Domex® Plus has high tolerance for worn tools. When punching tool edges start to become dull and tool clearances are growing, SSAB Domex® Plus keeps performing. Longer production runs and fewer tool changes naturally make the production more cost-effective.



SSAB DOMEX® PLUS – DEEPER INSIGHTS

SSAB Domex® Plus is part of the next generation of high strength, low alloy (HLSA) steels. It is a further developed version of the well-established SSAB Domex®, famous for its extremely consistent properties.

SSAB Domex® Plus features a finer micro-structure including refined and evenly distributed perlite. This provides improved properties which help you to overcome technical challenges in stamping, punching and press forming. It has excellent forming properties, both locally and globally. Because we know it's all in the details.

With SSAB Domex® Plus, you always know what you get, as the properties remain the same from batch to batch. A steel you can trust – every time. It helps you improve productivity, with less scrap, less rejections and lower costs.

To suit every need you might have, SSAB Domex® Plus is available as pickled coils, pickled slitted coils and cut-to-length.

Ideal for facing the challenges of serial production in:

- ▶ Stamping
- ▶ Punching
- ▶ Die forming
- ▶ Fine blanking
- ▶ Bending

Helps you to overcome following challenges:

- ▶ edge cracking in forming
- ▶ micro cracks in forming or shearing
- ▶ other cut-edge problems
- ▶ limitation is of smallest bending radius
- ▶ need for reworking

Domex® Plus offers

- ▶ Improved shear cutting properties
- ▶ Improved edge ductility
- ▶ Higher productivity in shear cutting and press forming
- ▶ Outstanding impact toughness min 40J/-60°C
- ▶ Minimum yield strength 355–500 MPa





Improved shear cutting properties

SSAB Domex® Plus provides improved shear cutting properties for various processes, including punching, blanking and even fine blanking. This helps you to improve the shear cut quality and reduce the need for re-working.

Robust behavior

Cutting clearance is one of the most important parameters in shear cutting but tends to vary in serial production, for instance because of tool wear or of instable tooling conditions. Thanks to its finer microstructure, SSAB Domex® Plus behaves extremely robustly under varying cutting clearances. This means more stable edge quality and a smoother manufacturing process.

Put simply: this material lets you use your tools longer, while keeping up the quality, even if your tools are worn down. This leads to more efficient production and lower tool maintenance costs.

Improved edge ductility

SSAB Domex® Plus features excellent edge ductility and local formability. This is needed when cut edges are exposed to

high local tensions. Consequently, it greatly outperforms standard materials in hole-expansion tests, which makes it well suited for forming cases where standard material fails in local forming. This helps you to solve forming challenges and improve the yield and productivity of the most challenging press forming operations.

Outstanding impact toughness

Standard steel becomes brittle when it gets cold. But SSAB Domex® Plus stays tough even down to -60°C , letting you keep working hard, tough and safe even as the temperature drops.

Makes the scrap bin light

SSAB Domex® Plus lets you reduce scrap percentage and increase productivity in component manufacturing. Cut and form it in a way you want, SSAB Domex® Plus keeps your production running at the highest performance.



DIRECT ACCESS TO EXPERTISE AND TECHNICAL SUPPORT

When you purchase SSAB Domex®, you gain access to SSAB's comprehensive support resources. You can always contact SSAB via phone or email to ask about everything from design solutions to material choice, workshop recommendations and technical support.



Our dedicated Tech Support people provide a high local presence worldwide. They are happy to be your partner in long-term development projects, as well as visit your site at short notice to solve urgent problems.

SSAB at your service

You are just a phone call or email away from great service with SSAB. We stand ready to provide optimized products and services that add value to your business and improve your customers' satisfaction. Contact us if you like to attend a technical seminar, or need a trial delivery to test the performance of SSAB Domex® in your production.



DELIVERED AS YOU LIKE IT

SSAB Domex® comes as hot rolled plate, hot or cold rolled strip, tubes and sections. It's also available in different metal-coated grades for corrosion resistance with zinc, galfan and galvanealed coatings.



Zinc coating by hot-dip galvanizing up to 42 μm on both sides can give a service life of up to 80 years. Galfan grades give excellent corrosion resistance, weldability and formability with a thinner 7-23 μm zinc-aluminum coating. Galvanealed grades have a 6-10 μm zinc-iron alloy coating ideal for spot welding and high-end painting applications.

You can order SSAB Domex® uncoated and metal-coated grades from our stock network or straight from mill, even in smaller volumes to suit your production and storage capacity. Your local SSAB contact will answer any questions about ordering and shipping, delivery times, marking and packing.

SSAB DOMEX® – GUARANTEED PROPERTIES FOR OPTIMIZED RESULTS

	Yield strength (MPa)		Tensile strength (MPa)		Elongation		Bending radius, 90° bend, T = Transversal, L= Longitudinal			Dimensions			
	min	max	min	max	A ₈₀ (%)	A ₅ (%)	t ≤ 3 mm	3 mm < t ≤ 3 mm	t > 6 mm	Thickness (mm)		Width (mm) Tubes OD/HxB (mm)	
					t < 3 mm	t ≥ 3 mm				min	max	min*	max*
Hot rolled plate													
SSAB Domex® 355ML													
8.00–16.00 mm	355	470	630	-	22				1xt (T), 1.5xt (L)	6	16	1000	3300
16.01–40.00 mm	345	470	630	-	22				1xt (T), 1.5xt (L)	16	40	1000	3300
40.01–63.00 mm	335	450	610	-	22				1xt (T), 1.5xt (L)	40	63	1000	3300
SSAB Domex® 420ML													
8.00–16.00 mm	420	520	680		19				1xt (T), 1.5xt (L)	6	16	1000	3300
16.01–40.00 mm	400	520	680		19				1xt (T), 1.5xt (L)	16	40	1000	3300
40.01–63.00 mm	490	500	660		19				1xt (T), 1.5xt (L)	40	63	1000	3300
SSAB Domex® 460ML													
8.00–16.00 mm	460	540	720		17				1xt (T), 1.5xt (L)	6	16	1000	3300
16.01–40.00 mm	440	540	720		17				1xt (T), 1.5xt (L)	16	40	1000	3300
40.01–63.00 mm	430	530	710		17				1xt (T), 1.5xt (L)	40	63	1000	3300
SSAB Domex® 500ML													
8.00–16.00 mm	500	570	760		16				1xt (T), 1.5xt (L)	6	16	1000	3300
16.01–40.00 mm	480	570	760		16				1xt (T), 1.5xt (L)	16	40	1000	3300
40.01–63.00 mm	470	560	760		16				1xt (T), 1.5xt (L)	40	63	1000	3300
Hot rolled strip													
SSAB Domex® 240YP	240	360	460	19	28	0.2 x t	0.3 x t	0.4 x t	1.80	20	760	1850	
SSAB Domex® 315MC	315	390	510	20	24	0.2 x t	0.3 x t	0.4 x t	1.80	16	760	1850	
SSAB Domex® 355MC	355	430	550	19	23	0.2 x t	0.3 x t	0.5 x t	1.80	16	760	1850	
SSAB Domex® 420MC	420	480	620	16	20	0.4 x t	0.5 x t	0.8 x t	1.80	15	760	1850	
SSAB Domex® 460MC	460	520	670	15	19	0.5 x t	0.7 x t	0.9 x t	2.00	13	760	1800	
SSAB Domex® 500MC	500	550	700	14	18	0.6 x t	0.8 x t	1.0 x t	2.00	13	760	1800	
SSAB Domex® 550MC	550	600	760	14	17	0.6 x t	1.0 x t	1.2 x t	2.00	12.8	760	1640	
Cold rolled strip													
SSAB Domex® 220LA	220-290	330	400	30		0xt			0.4	3	125	1527	
SSAB Domex® 260LA	260-330	350	430	26		0xt			0.5	3	125	1527	
SSAB Domex® 280LA	280-350	370	450	26		0xt			0.4	3	125	1527	
SSAB Domex® 300LA	300-380	380	480	23		0xt			0.4	3	125	1527	
SSAB Domex® 340LA	340-420	410	510	21		0xt			0.5	3	125	1527	
SSAB Domex® 350LA	350-440	410	530	22		0xt			0.5	3	125	1527	
SSAB Domex® 380LA	380-480	440	560	19		0xt			0.4	3	125	1527	
SSAB Domex® 420LA	420-520	470	590	17		0.25xt			0.5	3	125	1527	
SSAB Domex® 460LA	460-580	510	660	13		0.5xt			0.5	3	125	1527	
SSAB Domex® 500LA	500-620	570	710	14		0.5xt			0.45	2.1	125	1522	
Metal-coated													
SSAB Domex® 220D	220	340	400	31		0xt			0.50	3.00	1000	1520	
SSAB Domex® 260LAD	260	350	430	27		0xt			0.50	3.00	1000	1520	
SSAB Domex® 300LAD	300	380	480	23		0xt			0.50	3.00	1000	1520	
SSAB Domex® 340LAD	340	410	510	22		0.5xt			0.50	3.00	1000	1520	
SSAB Domex® 380LAD	380	440	560	19		1.0xt			0.50	3.00	1000	1520	
SSAB Domex® 420LAD	420	470	590	18		1.0xt			0.50	2.50	1000	1500	
SSAB Domex® 460LAD	460	500	640	16		1.0xt			0.80	2.00	1000	1500	
SSAB Domex® 500LAD	500	530	690	14		1.0xt			0.80	2.00	1000	1410	
SSAB Domex® 220GD	220	300	-	21		-			0.45	3.00	1000	1520	
SSAB Domex® 250GD	250	330	-	20		-			0.45	3.00	1000	1520	
SSAB Domex® 280GD	280	360	-	19		-			0.45	3.00	1000	1520	
SSAB Domex® 320GD	320	390	-	18		-			0.50	3.00	1000	1520	
SSAB Domex® 350GD	350	420	-	17		-			0.50	3.00	1000	1520	
SSAB Domex® 390GD	390	460	-	17		-			0.50	2.50	1000	1500	
SSAB Domex® 420GD	420	480	-	16		-			0.50	2.00	1000	1500	
SSAB Domex® 450GD	450	510	-	15		-			0.80	2.00	1000	1410	
Tubes and sections													
SSAB Domex® tube Double Grade	355/420	470/500	630/660		20				2	12.5	26.9 / 25x25	323.9 / 300x300	
SSAB Domex® tube 460MH	460	530	720		17				2	12.5	26.9 / 25x25	323.9 / 300x300	
SSAB Domex® tube 500MH	500	580	760		15				2	12.5	26.9 / 25x25	323.9 / 300x300	
SSAB Domex® tube 550MH	550	600	760		14				2	12.5	26.9 / 25x25	323.9 / 300x300	

* Depending on thickness

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	Yield strength (MPa)		Tensile strength (MPa)		Elongation		Impact toughness		Bending radius, 90° bend, T = Transversal, L= Longitudinal		Dimensions			
					A ₈₀ (%) t < 3 mm	A ₅ (%) t ≥ 3 mm	Charpy-V min		3 mm < t ≤ 3 mm	t > 6 mm	Thickness (mm)		Width (mm)	
	min		min	max	min	min					min	max	min*	max*
Hot rolled strip														
SSAB Domex® 355 MC Plus	355	430	550		23	40J/-60°C		0.0xt	0.0xt	3.00	10.00		1830	
SSAB Domex® 420 MC Plus	420	480	620		20	40J/-60°C		0.0xt	0.0xt	3.00	10.00		1830	
SSAB Domex® 460 MC Plus	460	520	670		19	40J/-60°C		0.0xt	0.0xt	4.00	10.00		1600	
SSAB Domex® 500MC Plus	500	550	770		18	40J/-60°C		0.0xt	0.0xt	3.00	8.00		1600	



OPTIMIZE YOUR BUSINESS

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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 the Nasdaq OMX Nordic Exchange in Stockholm and has a secondary listing on the Nasdaq OMX in Helsinki.

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