SSAB Domex 420ML

General Product Description

SSAB Domex 420ML is a thermomechanically rolled structural steel plate that provides high strength at low temperatures. SSAB Domex 420ML meets or exceeds the requirements of S420ML in EN 10025-4.

Dimension Range

SSAB Domex 420ML is available in thicknesses of 7.00-63.00 and in widths up to 3300mm depending on the thickness. More detailed dimensions are provided in the dimension program.

Dimensions

Thickness (mm)	Width (mm)	Length (mm)
7.00- 16.00	Up to 3300	Up to 15000
16.01- 40.00	Up to 3300	Up to 15000
40.01- 63.00	Up to 3300	Up to 15000

Mechanical Properties

Thickness (mm)	Yield strength R_{eH} (min MPa)	Tensile strength R_m (MPa)	Elongation A_5 (min %)	Min. inner bending radius for a 90 ° bend
7.00- 16.00	420	520- 680	19	1 x t (Transverse) ,1.5 x t (Longitudinal).
16.01- 40.00	400	520- 680	19	1 x t (Transverse) ,1.5 x t (Longitudinal) up to 20 mm.
40.01- 63.00	390	500- 660	19	-

The tensile test is made transversally to the rolling direction in compliance with EN 10 025-4.

Impact Properties

Test temperature	Min. impact energy for longitudinal Charpy V- notch test
-60 °C	40 min J

The impact test is made longitudinally to the rolling direction in compliance with EN 10 025-4.

Chemical Composition (Ladle analysis)

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Al (min %)	Nb (max %)	V (max %)	Ti (max %)
0.14	0.50	1.60	0.020	0.015	0.02	0.05	0.10	0.05

Carbon Equivalent Values

Thickness (mm)	7.00 - 63.00
CEV Max	0.38
CET Max	0.22

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

Tolerances

Thickness

SSAB Domex 420ML is delivered with tolerances that correspond to ¾ of EN 10 029:2011 as default value.

Length and Width

Width tolerances-0/+4-10mm depending on the thickness. Length tolerances-0/+15-25mm depending on length.

Shape

According to EN 10 029.

Flatness

Maximum flatness deviation 6 mm/m.

Surface

According to EN 10 163-2 Class A3.

Delivery Conditions

Thermomechanically rolled (M).

Fabrication and Other Recommendations

For information concerning fabrication, see SSAB's brochures on www.ssab.com or consult Tech Support, techsupport@ssab.com.
Appropriate health and safety precautions must be taken when bending, welding, cutting, grinding or otherwise working on the product.

Contact Information

www.ssab.com/contact