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 8.00-63.00 mm and in widths up to 3300 mm depending on the thickness. More detailed dimensions are provided in the dimension program.

Mechanical Properties

Thickness (mm)	Yield strength R_{eH} (min MPa)	Tensile strength R_m (MPa)	Elongation A_5 (min %)
8.00 - 16.00	420	520 - 680	19
16.01 - 40.00	400	520 - 680	19
40.01 - 63.00	390	500 - 660	19

The tensile test is made transverse to the rolling direction in compliance with EN 10025-4.

Impact Properties

Min. impact energy for longitudinal testing, Charpy V 10x10 mm test specimens
40 J / -60 °C

The impact test is made longitudinally to the rolling direction in compliance with EN 10025-4.

Chemical Composition (heat 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

Thickness (mm)	8.00 - 63.00
CET (max)	0.29
CEV (max %)	0.38

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

Tolerances

Thickness

SSAB Domex ML products are delivered with tolerances that correspond to ¾ of EN 10029 Class A as default value.

Length and Width

Width tolerances -0/+4-10 mm depending on the thickness. Length tolerances -0/+15-75 mm depending on length.

Shape

According to EN 10029.

Flatness

Maximum flatness deviation 6 mm/m.

Surface Properties

According to EN 10163-2 Class A, Subclass 3.

Delivery Conditions

Thermomechanically rolled (M).

Fabrication and Other Recommendations

Minimum inner bending radius is 1.0 x t transverse to the rolling direction and 1.5 x t longitudinal to the rolling direction up to max 20mm in thickness.

For information concerning fabrication, see SSAB´s brochures on www.ssab.com or consult Tech Support.

Appropriate health and safety precautions must be taken when bending, welding, cutting, grinding or otherwise working on the products.

Contact Information

www.ssab.com/contact