

SSAB Domex 500ML

General Product Description

SSAB Domex 500ML is a thermomechanically rolled structural steel plate that provides high strength at low temperatures. SSAB Domex 500ML has no equivalent in any structural standard.

Dimension Range

SSAB Domex 500ML is available in thicknesses of 8.00-60.00 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	500	570 - 760	16
16.01 - 40.00	480	570 - 760	16
40.01 - 60.00	470	560 - 760	16

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 %)
0.18	0.50	1.70	0.020	0.010	0.02	0.05	0.12	0.05

Carbon Equivalent

Thickness (mm)	8.00 - 60.00
CET (max)	0.31
CEV (max %)	0.43

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

Tolerances

Thickness

SSAB Domex ML products are delivered with tolerances that correspond to ¼ 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 $1.0 \times t$ transverse to the rolling direction and $1.5 \times t$ 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