

SSAB Domex 240YP

General Product Description

SSAB Domex 240YP meets or exceeds the requirements of S235JRC, S235J0C or S235J2C in EN 10025-2, depending on agreed impact strength requirements at the time of order. Upon agreement, it can be delivered double certified and CE marked.

Dimension Range

SSAB Domex 240YP is available in thicknesses of 1.80-20.00 mm and widths up to 1860mm depending on thickness as coils, slit coils and as cut to length in lengths up to 16 meters.

Mechanical Properties

Thickness (mm)	Yield strength R _{eH} (min MPa)	Tensile strength R _m (MPa)	Elongation A ₈₀ ¹⁾ (min %)	Elongation A ₅ ²⁾ (min %)	Min. inner bending radius for a 90 ° bend (%)
1.80- 3	240	360- 460	19	28	0.2 xt
3.01- 6	240	360- 460		28	0.3 xt
6.01- 20	240	360- 460		28	0.4 xt

The mechanical properties are valid in the transversal direction.

Bending properties for both longitudinal and transversal direction

¹⁾ A₈₀ value applies for thicknesses < 3.00 mm

²⁾ A₅ value applies for thicknesses ≥ 3.00 mm

Impact Properties

Designation	Test temperature	Min. impact energy for longitudinal Charpy V- notch test
B	-	-
D	-20 °C	27 J
E	-40 °C	27 J

Impact testing according to ISO 148-1 is performed on thicknesses ≥ 6mm. The specified minimum value corresponds to a full-size specimen.

Chemical Composition (Ladle analysis)

C (max %)	Si (max %)	Mn * (max %)	P (max %)	S (max %)
0.12	0.03	0.80	0.030	0.025

The steel is grain refined.

*Mn max 1,1% for thicknesses above 16 mm

Carbon equivalent values

Thickness (mm)	1.8 - 20
CEV typical (%)	0.16
CET typical (%)	0.12

$$CET = C + \frac{Mn + Mo}{10} + \frac{Cr + Cu}{20} + \frac{Ni}{40}$$

$$CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

Tolerances

SSAB Domex is delivered with SSAB Domex tolerances, with improved guarantees compared to EN 10051:2010. More details are available at SSAB.com

Thickness

SSAB Domex thickness tolerances correspond to 2/3 of EN 10051:2010 as default value. Tighter tolerances are available on request.

Length and Width

SSAB Domex tolerances for width and length are according to SSAB standard and offer narrower width and length tolerances compared to EN 10051:2010.

For coil and sheet with mill edge, the width tolerances are corresponding to -0/+20 mm.

For coil and sheet with cut edge, the width tolerances are corresponding to -0/+2 mm.

After special agreement, tighter tolerances can be delivered for certain products and dimensions.

Length tolerances only apply for cut to length sheets.

Shape

SSAB Domex is delivered with shape tolerances according to EN 10051:2010. Tighter tolerances are available on request.

Flatness

SSAB Domex tolerances correspond to SSAB Flatness Guarantees Class A.

SSAB Domex tolerances guarantee a maximum flatness deviation of 3 mm/m in addition to the EN 10051:2010 flatness requirements.

Flatness guarantees only apply for cut to length sheets.

Surface Properties

According to EN 10 163-2 Class A, Subclass 3.

Delivery Conditions

Thermomechanically rolled.

Surface and edge condition

SSAB Domex 240YP is available with non-pickled or pickled surface with mill or cut edge.

Fabrication and Other Recommendations

SSAB Domex 240YP is a cold forming steel not suited for heat treatments at temperatures above 580°C, since the material then may lose its guaranteed properties.

SSAB Domex 240YP has good laser cutting, cold forming and welding performance.

SSAB Domex 240YP is suitable for hot dip galvanizing.

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