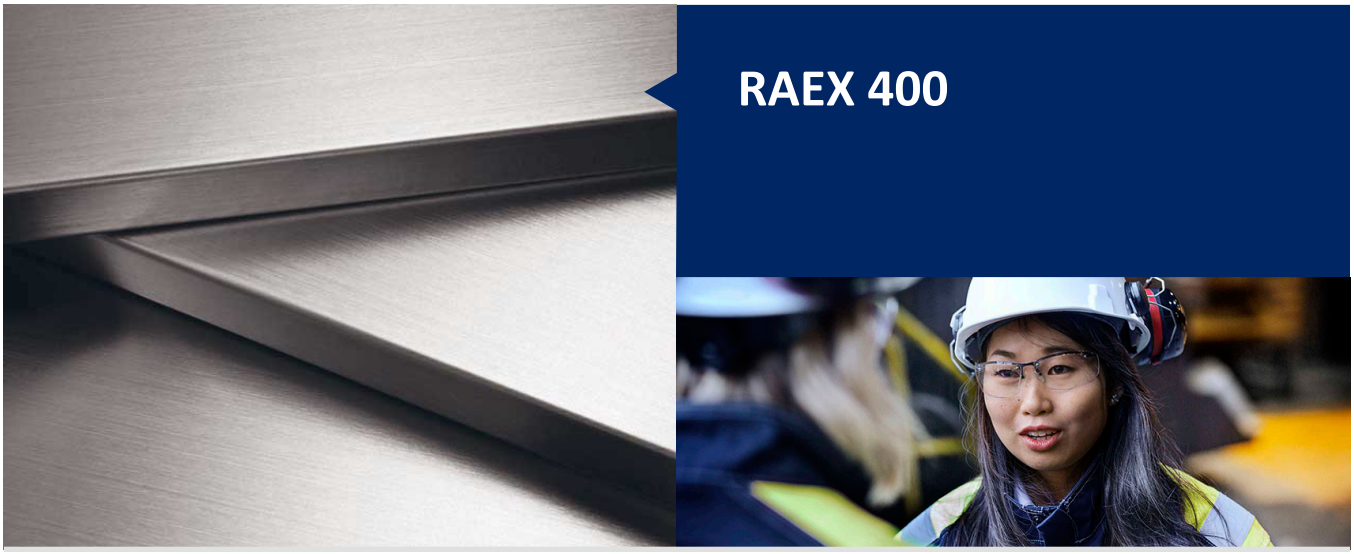

RAEX 400

General Product Description

— Sold through certified partners
SSAB now sells Raex® — the high-strength, wear-resistant steel with good hardness and impact toughness — through SSAB's Certified Partner network. Raex helps extend the lifespan of machinery, decrease wear in structural components and save costs. It also enables innovative design and lightweight products that improve energy efficiency.
Raex is a high-strength, wear-resistant steel with favorable hardness and impact toughness. It can help extend the lifespan of machinery, decrease wear in structural components and save costs. It also enables innovative design and lightweight products improving energy efficiency.
Applications include buckets and containers, cutting edges for earthmoving machines, wearing parts for mining machines, wearing parts for concrete mixing plants and wood processing machines, platform structures, and feeders and funnels.

Dimension Range
Raex 400 sheet is available in thicknesses of 2 to 8 mm and Raex 400 plate in thicknesses of 6 to 80 mm. Maximum width is depending on thickness. More detailed information on dimension is provided at www.ssab.com.

Mechanical Properties

Product	Thickness (mm)	Width (mm)	Length (mm)	Hardness (HBW)	Typical yield strength $R_{p0.2}$ (MPa)	Typical tensile strength R_m (MPa)	Typical elongation A (%)
Sheet	2.00- 8.00	1000- 1750	2000- 12000	360- 440	1100	1250	10
Plate	6.00- 40.00	1800- 3200	2000- 12000	360- 440	1100	1300	10
Plate	40.01- 60.00	2000- 2500	4000- 9500	360- 440	1100	1300	10
Plate	60.01- 80.00	2000- 2500	4000- 6900	360- 440	1100	1300	10

Brinell Hardness is measured, according to EN ISO 6506-1 on milled surface 0.3-3.0mm below surface. Hardness value is being announced in the material certificate. Mechanical properties are tested in transverse direction and tabulated for information only and values are not shown in material certificate.

RAEX 400

Impact Properties

Product	Typical impact energy, longitudinal test, Charpy V 10x10 mm test specimen[1)]
Raex 400	30 J/-40 °C

[1)] Impact testing according to EN ISO 148-1 is performed on thickness ≥6mm. The specific value corresponds to a full-size specimen. Impact values are tabulated for information only and value are not shown in material certificate.

Chemical Composition (ladle analysis)

Product	C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Cr (max %)	Ni (max %)	Mo (max %)	B (max %)
Plate	0.23	0.80	1.70	0.025	0.015	1.50	1.00	0.50	0.005
Sheet	0.16	0.50	1.60	0.025	0.010	1.20	1.00	0.25	0.005

The steel is grain refined.

Carbon Equivalent CET(CEV)

Thickness (mm)	Sheet 2.00 - 8.00 mm	Plate 6.00 - 20.00 mm	Plate 20.01 - 32.00 mm	Plate 32.01 - 80.00 mm
Typ CET(CEV) [1) 2)]	0.30 (0.48)	0.30 (0.44)	0.35 (0.53)	0.35 (0.57)

[1)] The CET values are tabulated for information only.

[2)] The CEV value is being announced in the inspection certificate.

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

Tolerances

Thickness
For plate tolerances according to EN 10 029 Class A, tighter tolerances upon agreement. For sheet tolerances according to EN 10 051 Category A.

Length and Width
For plate tolerances according to EN 10 029, tighter tolerances upon agreement. For sheet tolerances according to EN 10 051.

Shape
For plate tolerances according to EN 10 029. For sheet tolerances according to EN 10 051

Flatness
For plate tolerances according to EN 10 029, tighter tolerances upon agreement. For sheet tolerances according to EN 10 051.

RAEX 400

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

Bending
Minimum inner bending radii for a 90° bend, t ≤ 20 mm are:
Sheets and plates, 3 x t (transverse) and 4 x t (longitudinal).

Delivery Conditions

The delivery condition is quenched. Sheets are available in as rolled surface condition with mill edge. Plates are available in as-rolled or shop-primed surface condition. Delivery requirements can be found in SSAB´s brochure at www.ssab.com.

Fabrication and Other Recommendations

Welding, bending and machining recommendations can be found in brochures at www.ssab.com or consult Tech Support, techsupport@ssab.com.

Raex 400 is not intended for further heat treatment. Mechanical properties are achieved by quenching. The properties of the delivery condition cannot be retained after exposure to temperatures in excess of 250°C.

Appropriate health and safety precautions must be taken when welding, cutting, grinding or otherwise working on this product. Grinding, especially of primer coated plates, may produce dust with a high particle concentration.

Contact and Information
For information, see SSAB's brochures at www.ssab.com or consult Tech Support, techsupport@ssab.com.