



RAEX 300

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.

Available dimensions

Total Thickness Range: 2- 8 mm

Max Width: 1550 mm

Max Length: 12 m

Mechanical Properties

Product	Thickness (mm)	Width ¹⁾ (mm)	Length ²⁾ (m)	Hardness (HBW)	Yield Strength Rp0.2 (MPa)	Tensile Strength Rm (MPa)	Elongation A (%)
Cut Length	2- 8	1000- 1550	2- 12	270- 390	900	1000	11

¹⁾ Maximum width of a cut length depends on the thickness and steel grade.

²⁾ Cut lengths with lengths 12-13 metres are available subject to special agreement.

Impact Properties

Product	Typical impact energy, longitudinal test, Charpy V 10x10 mm test specimen ¹⁾
Raex 300	30 J/-40 C

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

RAEX 300

Chemical Composition (cast analysis)

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Cr (max %)	Ni (max %)	Mo (max %)	B (max %)
0.18	0.80	1.70	0.025	0.015	1.50	1	0.5	0.005

The steel is grain refined.

Carbon Equivalent Values

Thickness (mm)	2 - 12 mm
CEV Typical ¹⁾	0.46
CET Typical ²⁾	0.24

¹⁾ The CEV value is being announced in the inspection certificate.

²⁾ The CET values are tabulated for information only.

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

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

Delivery Conditions

The delivery condition of Raex steel is hardened.

Fabrication and Other Recommendations

Special care must be taken in all stages of handling hardened steels. Flanging is challenging due to the high strength and high flexural stresses of the plate. If the bending radius, for example, is too small and a crack is created in the bending point, the plate may fly from the bending tool in the direction of the bend.

Those bending the plate must take appropriate precautions to protect themselves and no unauthorised persons must be allowed in the area. The safest location is usually by the bending machine. The handling instructions of the steel supplier and safety instructions of the workshop must be adhered to in detail. New employees must receive appropriate training before they are allowed to process hardened steels.



The UK English version of this document shall prevail in case of discrepancy. Download the latest version of this document at www.ssab.com
Hardox, Strenx, Docol, Dogal, Domex, Toolox, Laser, Armox, Ramor, GreenCoat are trademarks of SSAB Technology AB, Sweden