Raex 300

General Product Description

— Any time, any wear

Raex® offers a complete range of abrasion-resistant steels through SSAB's Certified Partner network. With its dependable quality and reliable performance, it delivers great value for all your typical wear applications.

High availability

Raex plate and strip are quickly available from our global Raex distribution network, enabling fast, effective production and less tied-up capital. For custom specialized grades, Raex mill lead times are short and delivery is reliable for easy inventory planning and replenishment.

Complete product range

Available in thicknesses of 2-80 mm at 300-500 HB, Raex has got your every wear need covered. You can depend on Raex to help extend service life, increase payload, optimize production and save costs. And Raex strip, made using modern technology and extensive quenched manufacturing processes, offers you more options and design possibilities.

Quality and performance you can rely on

Leaner production begins with reliable performance. Raex is made from carefully chosen raw materials in a tightly controlled, integrated steel mill process. The result: reliable quality and performance hardness, bendability, surface quality and flatness – thus high performance for all your typical wear applications.

Mechanical Properties

Product	Thickness (mm)	Width [1] (mm)	Length [2] (m)	Hardness (HBW)	Typical yield strength $R_{p0.2}$ (MPa)	Typical tensile strength R_m (MPa)	Typical elongation A (%)
Sheet	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 ≥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 (cast analysis)

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Cr (max %)	Ni (max %)	Mo (max %)	B (max %)
0.18	0.80	2.0	0.025	0.015	1.50	1	0.5	0.005

The steel is grain refined.

Carbon Equivalent Values

Thickness (mm)	2 - 8
CET(CEV) Typical [2]	0.27(0.46)

[1] The CEV value is being announced in the inspection certificate.
[2] The CET values are tabulated for information only.

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

Raex is produced at the SSAB Plant in Raahe, Finland.

Tolerances

Thickness
For sheet tolerances according to EN 10 051 Category A.

Length and Width
For sheet tolerances according to EN 10 051.

Shape
For sheet tolerances according to EN 10 051.

Flatness
For plate and sheet the flatness deviation is max 6 mm/m.

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

Bending
Minimum inner bending radii for a 90° bend are:

Sheets, 3 x t in both directions.

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.

Contact information
http://www.raexsteel.com/raex-contact