Ramor® 500

General Product Description

The ballistic protection steel with high hardness.

Ramor® 500 is a ballistic protection steel of high hardness, available in thicknesses of 2.0 - 30.0 mm (0.079-1.18") and hardnesses of 490-560 HBW.

Ramor® 500 is available as cut-to-length sheet in thicknesses of 2.0 - 6.5 mm (0.079-0.256") and as plate in thicknesses of 6.0 - 30.0 mm (0.236-1.18"). Delivered in quenched condition, Ramor® 500 is not intended for further heat treatment.

Dimension Range

Ramor 500 is available as cut-to-length sheet in thickness between 2.0 - 6.50 mm, and as plate in thickness 6.0 - 30.0 mm.

Mechanical Properties

	Thickness (mm)	Hardness (HBW)
Ramor® 500	2.0 - 30.0	490 - 560

Mechanical Testing

Brinell hardness test according to EN ISO 6506-1 on each heat treatment individual/coil.

Hardness is measured on a milled surface 0.3-2 mm below plate surface.

Chemical Composition (ladle analysis)

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Cr (max %)	Ni (max %)	Mo (max %)	B (max %)
0.35	0.70	1.5	0.015	0.010	1.00	2.0	0.70	0.005

The steel is grain refined. Phosphorous and sulphur are not intentionally alloying elements.

Tolerances

More details are given on www.ssab.com.

Thickness

Product Type	Thickness (mm)	Tolerance (mm)
Sheet	2.00 - 4.00	- 0.0 / + 0.36
Sheet	4.01 - 5.00	- 0.0 / + 0.40
Sheet	5.01 - 6.00	- 0.0 / + 0.42
Sheet	6.01 - 6.50	- 0.0 / + 0.44
Plate	6.0 - 7.9	- 0.0 / + 0.8
Plate	8.0 - 14.9	- 0.0 / + 1.0
Plate	15.0 - 24.9	- 0.0 / + 1.2
Plate	25.0 - 30.0	- 0.0 / + 1.4

Length and Width

Sheets are delivered with mill edges cut as standard.

- Tolerances conform to EN 10051 or to SSAB´s standard after agreement.

Plate delivered according to SSAB's dimension program.

- Tolerances conform to EN 10029 or to SSAB's standard after agreement.
- Dimensional tolerances for plate with mill edge according to special agreement.

Shape

Tolerances according to EN 10029 for plate and according to EN 10051 for sheet.

Flatness

Tolerances according to SSAB's flatness tolerances which are more restrictive than EN 10029 Class N (steel type L) and EN 10051.

Product Type	1000 ruler (mm)
Sheet	6
Plate	6

Surface Properties

According to EN 10163-2 Class B, Subclass 3.

Delivery Conditions

Ramor® is delivered in quenched condition.

Fabrication and Other Recommendations

Welding, bending and machining

For information concerning welding and fabrication, see SSAB's brochures on www.ssab.com or consult Tech Support.

Ramor® is not intended for further heat treatment. If Ramor® is heated above 180 °C after delivery from SSAB no guarantees for the properties are given.

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

Contact Information

www.ssab.com/contact

The English version of this document shall prevail in case of discrepancy. Minor changes and updates to the document may occur, please download the latest version of this document at www.ssab.com

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