

Armox 370T Class 1

General Product Description

Rolled homogeneous armor for vehicles.

Armox® 370T Class 1 is a rolled homogeneous armor plate (RHA) that combines good resistance to penetration with excellent toughness.

Benefits of Armox 370T Class 1 include:

- Market-leading steel protection
- Superior workshop properties
- Optimized solutions
- Expertise in ballistic protection from SSAB

Armox 370T Class 1 is not intended for further heat treatment.

Dimension range

Armox 370T Class 1 is available in thicknesses between 3.0 and 100.0 mm. Other dimensions to be agreed with SSAB.

Mechanical Properties

Plate thickness (mm)	Hardness (HBW)	Charpy-V ¹⁾ , 10x10 mm test specimen ²⁾ Min.	Yield Strength R _{p0.2} (min MPa)	Tensile Strength R _m (MPa)	Elongation A ₅ (min %)	Elongation A ₅₀ (min %)
3.0- 3.9	380- 430	20 J/-40°C	1000	1150- 1350	8	8
4.0- 5.9	380- 430	20 J/-40°C	1000	1150- 1350	10	10
6.0- 19.9	380- 430	20 J/-40°C	1000	1150- 1350	10	12
20.0- 39.9	340- 390	40 J/-40°C	900	1050- 1250	11	13
40.0- 59.9	300- 350	40 J/-40°C	850	950- 1150	12	14
60.0- 100.0	300- 350	40 J/-40°C	-	-	-	-

¹⁾ Average of three tests. Transverse to rolling direction. Single value min. 70% of specified average.

²⁾ For plate thicknesses under 12 mm sub-size Charpy-V specimen are used. The specified minimum value is then proportional to the specimen cross-section.

Mechanical Testing

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

Charpy impact test according to EN ISO 148 on each heat and thickness from 6 mm.

Tensile test according to EN ISO 6892 on each heat and thickness under 60 mm.

Ultrasonic testing

According to EN ISO 10 160 Class E₃ S₃ for thicknesses up to 80 mm and E₁ S₂ for > 80 mm.

Chemical Composition (ladle analysis)

C ^{*)} (max %)	Si ^{*)} (max %)	Mn ^{*)} (max %)	P (max %)	S (max %)	Cr ^{*)} (max %)	Ni ^{*)} (max %)	Mo ^{*)} (max %)	B ^{*)} (max %)
0.32	0.4	1.2	0.010	0.003	1.0	1.8	0.7	0.005

The steel is grain-refined. ^{*)} Intentional alloying elements.

Tolerances

More details are given in SSAB's brochure 41-General product information Strenx, Hardox, Armox and Toolox-UK or on www.ssab.com.

Thickness

Heavy Plate	
Plate thickness (mm)	Tolerances (mm)
3.0- 12.9	- 0.0 / + 0.8
13.0- 19.9	- 0.0 / + 1.0
20.0- 39.9	- 0.0 / + 1.2
40.0- 59.9	- 0.0 / + 1.6
60.0- 79.9	- 0.0 / + 2.0
80.0- 100	- 0.0 / +2.4

Length and Width

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.

Flatness

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

Surface Properties

According to EN 10163-2 Class B Subclass 3.

Delivery Conditions

SSAB's brochure 41-General product information Strenx, Hardox, Armox and Toolox-UK or on www.ssab.com.

Fabrication and Other Recommendations

Welding, bending and machining

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

Armox 370T Class 1 is not intended for further heat treatment. If Armox 370T Class 1 is heated above 390 °C after delivery from SSAB no guarantees for the properties of the steel are given.

Nitriding or surface coating may be carried out if the temperature is below 390 °C.

Appropriate health and safety precautions must be taken when welding, cutting, 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