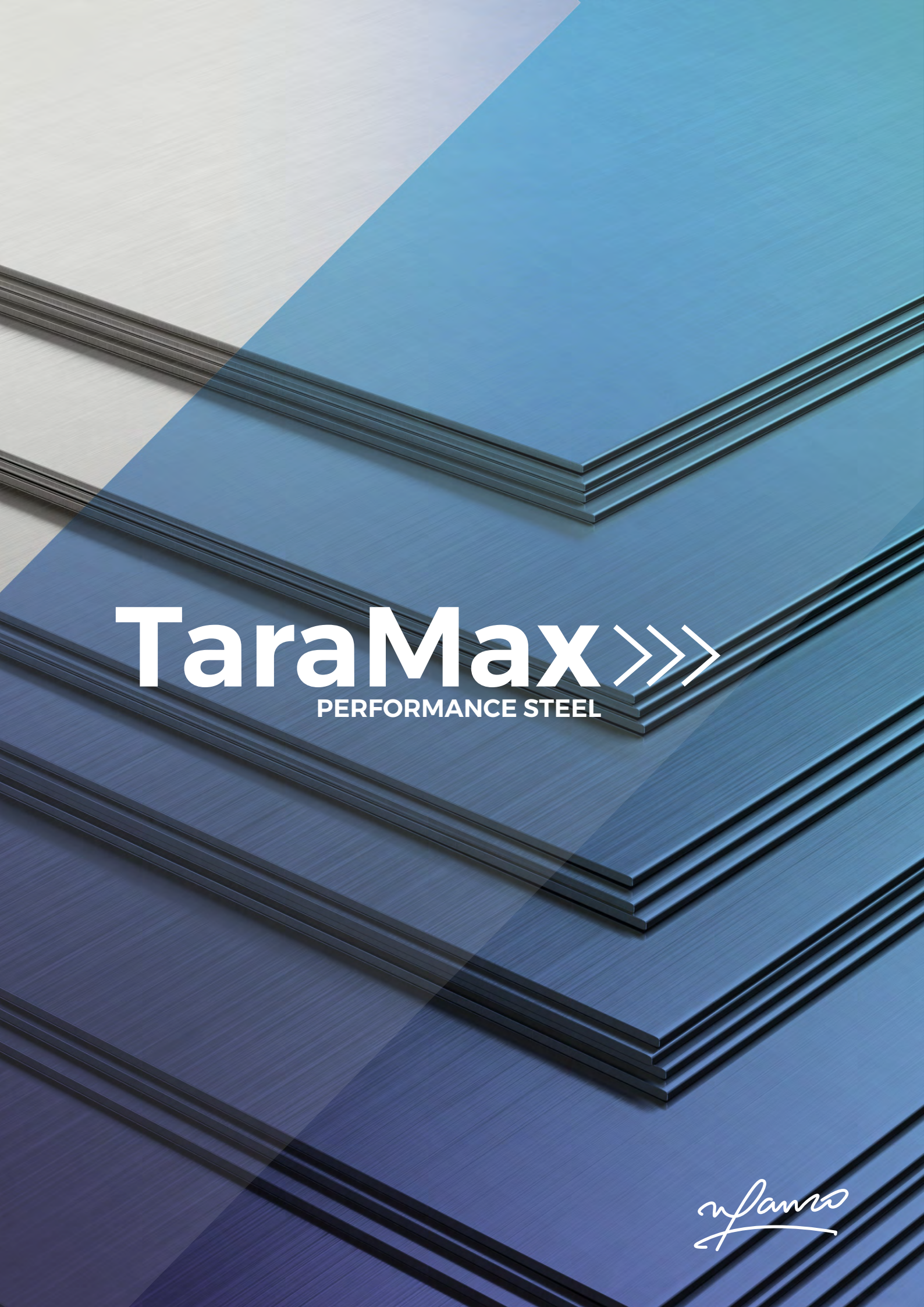
TaraMax
PERFORMANCE STEEL

General Product Description

TaraMax A/B is a structural steel with a minimum yield strength of 650-700 Mpa depending on thickness. TaraMax A/B meets the requirement of EN 10 025-6 for the S690 grade and thickness. Typical applications include demanding load-bearing structures.

TaraMax A (complies with S690QL) is available in plate thickness of 14 - 100 mm, with TaraMax B(complies with S690QL1) is available in plate thickness of 14 - 90 mm.

Benefits include:

- Superior bendability and surface quality
- Weldability with excellent HAZ strength and toughness
- Exceptional consistency within a plate guaranteed by close tolerances
- High impact toughness which provides for good resistance to fractures

Dimension Range

TaraMax A is available as plate in thickness of 14 - 100 mm and Taramax B is available as plate in thickness of 14 - 90 mm. Both grades are available in widths up to 2000 mm and lengths up to 6000 mm depending on thickness. More detailed information on dimensions is provided in the dimension program.

Mechanical Properties

Thickness (mm)	Yield strength $R_{p0.2}$ (min MPa)	Tensil strength R_m (MPa)	Elongation A_5 (min%)
14.0 - 53.0	700	780 - 930	14
14.1 - 100.0	650	780 - 930	14

For transverse test pieces.

Impact Properties – Impact Energy KV2 – Minimum Values if impact energy at test temperature's in Degree Celsius

Grade	0	-20	-40	-60
TaraMax (S690Q)	40	30	-	-
TaraMax A (S690QL)	50	40	30	-
TaraMax B (S690QL1)	60	50	40	30

Unless otherwise agreed, transfers impact testing according to EN 10025-6 option 30 will apply. For thickness between 6 - 11.9 MM, sub- size Charpy V–specimens are used. The specified minimum value is then proportional to the cross sectional area of the specimen compared to a full-size specimen (10 x 10 mm)

Chemical Composition (ladle analysis)

C *) (Max %)	Si *) (Max %)	Mn *) (Max %)	P (Max %)	S (Max %)	Cr *) (Max %)	Cu *) (Max %)	Ni *) (Max %)	Mo *) (Max %)	B *) (Max %)
0.20	0.60	1.60	0.020	0.010	0.80	0.30	2.0	0.70	0.005

The steel is grain refined. *) International alloying elements

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

TaraMax

TOLERANCES

Tolerances as per EN10025-6 : 2019

THICKNESS

Tolerances according to TaraMax thickness guarantees. TaraMax guarantees meet the requirements of EN 10 029 class A, but offers narrow tolerances.

LENGTH AND WIDTH

According to Namco dimension program. Tolerances can confirm with EN 10 029 or to Namco standard after agreement.

SHAPE

Namco offers tolerances according to EN 10 029.

FLATNESS

Tolerances according to Namco flatness Guarantee Class C,

SURFACE PROPERTIES

According to EN 10 163-2 Class A, subclass 3.

BENDING

Tolerances according to Namco bending Guarantee Class A.

DELIVERY CONDITIONS

The delivery condition is Quenched and Tempered. The plates are delivered with sheared front and back edges, and side Mill edges.

FABRICATION AND OTHER RECOMMENDATIONS

Welding, bending and machining:

TaraMax A/B has obtained its mechanical properties by quenching and subsequent tempering. The properties of the delivery condition cannot be retained after exposure to temperatures in access to 580°C.

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

Manufacturing facilities & Production Process:

Namco's plate mill is equipped with a pusher type re-heating furnace. Slabs are reheated to a temperature of 1400 degrees Celsius in this furnace and rolled in a 4-hi reversing type mill. High pressure descalers are provided at the entry and exit side of both strands to ensure excellent surface quality. The mill is equipped with an auto level 2 width and thickness controlling system.

4-Hi Reversing plate mill with:

- Vertical edger at entry side of the roughing mill, with hydraulically operated automatic width control system
- Automatic slab squaring before mill.
- 4-hi reversing type roughing mill with hydraulic auto gauge control system
- Accelerated Water-Cooling System (ACC) after finish rolling to control metallurgical parameters, achieving Good surface quality and adequate finishing & coiling temperature.

Post rolling plates up to 40 MM are cut into length online with an automatic shear.

Plates thicker than 40 MM are cut into length with gas cutters.

Due to the EDGER rolling, plates do not need to be trimmed and are supplied with Flat Mill Edges.

Post cooling plates are visually inspected before being moved to the Q&T Facility.

Quenching and Tempering Facility :

Plates are quenched in a bogey hearth furnace for a period of minimum 4 hours at temperature's between 700-900 degrees.

Post this plates are water quenched in room temperature water.

Post cooling of plates, the plates are re-heated in the tempering furnace to achieve desired hardness qualities and then levelled in a Cold Levelling facility achieving absolute flatness as per Namco Standards.

Testing Facilities :

- BHN
- Impact Testing including -20 and -40 degrees
- Spectrometer's for chemical analysis plus chemical testing labs
- UT Testing facilities

CONTACT INFORMATION

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