

## STATEMENT OF TECHNICAL REQUIREMENTS FOR NON-HLES PLATES

1. **Functionality.** Hot rolled S355NL structural weldable steel plates as per guiding Reference Standard : NF EN 10025-3. These plates are used for fabrication of Non-pressure Hull structures of Submarine.
2. **Types of Plates.** Requirement exists for various thickness of plates ranging from 3mm to 80mm.
3. **Major Acceptance Criterion & its Requirements.**

<u>SNo.</u>	<u>Acceptance criterion</u>	<u>Requirements</u>
1.	Tolerances on dimensions	In accordance with NF EN 10029 (class N for flatness) ; thicknesses in accordance with Table 1 referred below
2.	Metallurgical condition -Heat treatment on delivery	Normalized or equivalent by Normalizing Rolling (+N).
3.	Surface defects	In accordance with NF EN 10163-2 / class B / sub-class 3 (option 15).
4.	Internal defects	In accordance with EN 10025-1.
5.	Surface treatment.	In accordance with. instructions, the plates are to be delivered :- (a) Either as-rolled. (b) Or blast-cleaning and prefabrication primed with: - blast-cleaning in accordance with. ISO 8501-1 (Sa 2,5); - painting : 1 coat of zinc-rich primer, in Brown colour, ESIZ or Ethyl-silicate with zinc kind (Carboweld 11P type) in accordance with NF EN 10238 except for a max. thickness of 20 µm.
6.	Control document	In accordance with NF EN 10204 : - "Certificate of compliance with order" - "Inspection certificate" 3.1 for a producer.

**Table 1**

THICKNESS (t in mm)	TOLERANCE	
	Lower limit <sup>1</sup>	Upper limit <sup>2or 4</sup>
$t < 5$	- 0,3	+0,45
$5 \leq t < 8$	- 0,3	+0,3 <sup>4</sup>
$8 \leq t < 15$	- 0,3	+0,35 <sup>4</sup>
$15 \leq t < 25$	- 0,3	+0,8
$25 \leq t < 40$	- 0,3	+0,95
$40 \leq t < 80$	- 0,3	+1,25
$80 \leq t < 150$	- 0,3	+1,45

<sup>1</sup>: lower limits conform to NF EN 10029 (class B)

<sup>2</sup>: upper limits of EN 10029 (class B) divided by half.

<sup>3</sup>: i.a.w. NF EN 10029

<sup>4</sup>: upper limits of EN 10029 (class B) divided by four.