

SY825 for bar CORROSION APPLICATION

This is a Fe, Ni, Cr, Mo alloy developed to resist in severe corrosive environments, such as sea water, oil related industries and solutions of sulfuric acid or phosphoric acid. It is a non-magnetic alloy.

1. Chemical content :

UNS N08825
EN NiCr21Mo
W 2.4858

Fe	Ni	Cr	Mo	Others
base	38-46	20-23	2,5-3,5	Ti, Cu

2. Corrosion resistance :

- PREN > 30 as a standard, PREN > 32 if asked
- Stress-corrosion cracking resistance according to NACE MR0175 is guaranteed.

3. Applications :

- Chemicals Industries (Sulfuric acid, phosphoric acid)
- Pollution control (scrubbers, ventilation,...)
- Pickling
- Oil and Petrochemistry
- Marine Industries

Standards related to these applications :

ASTM B425, B564
NACE MR0175

4. Shapes – Tolerances – Destinations :

Round bars

Section	Ø 4 to Ø 20mm	Ø 20 to Ø 140mm	Ø 140 to Ø 325mm
Process	Cold bars	Hot-rolled bars	Forged bars
Surface Condition	Raw, rectified, chamfered	Peeled , rectified, polished, roller burnished, raw	Peeled , ground, rectified, polished, raw
Length	3 to 4m	3 to 6m	
Weight	min 400Kg	min 1000Kg	
Packaging	Wooden box or narrow strapping	Metallic banding	Secured package
Tolerances	Drawn straightened and rectified h9, Ra < 1µm	Peeled, roller burnished h11, Ra < 3,2µm	
	Ground	+/- 3mm	+/- 5mm
	Peeled (Ra < 6,3µm)	+/- 0,8mm	- 0 / + 0,79mm for Ø > 25,4mm
Straightness	0,5mm/m	4,2mm/m	4,2mm/m
Uses	Bars for machining	Bars for machining or hot-transformation	
Customer processes used in manufacturing finished parts	Machining, free-cutting	Machining, forging, stamping, hot-rolling, drop forging, ring becking, drawing, upsetting, ring rolling,...	

Square bars

Section	80x80mm to 265x265mm
Process	Bloomed or forged
Surface condition	Ground
Length	3 to 6m
Weight	min 1000Kg
Tolerance	+/- 5mm
Straightness	10mm/m
Uses	Bars for hot-transformation only
Customer processes used in manufacturing finished parts	Forging, stamping, drop forging, ring becking, drawing, upsetting, ring rolling, hot-rolling, ...

Other shapes (pickled plates or sheets, ...) : Consult DAR

5. Certificate :

Certificate 10224-3.1

Chemical composition according to relevant standards.

Bars for hot-transformation

Ultrasonic test according to standard EN10228-4

Other products

Consult DAR

For sheets or plates, case by case according to request.