

DECLARATION OF PERFORMANCE

N° 0101/058

Rev. 0

Product Identification Code	Flat product made of Stainless Steel X2CrTiNb18 1.4509 Cold rolled, according to EN10088-4.	
Identification	According to the information stated on the ID label with barcode and/or bundle number and in the inspection certificate.	
Intended use of the construction product	Stainless Steel Flat Product for use in the construction field.	
Manufacturer (registered office)	Marcegaglia S.p.A. Via Bresciani, 16 – 46040 Gazoldo degli Ippoliti (MN) – Italia	
Production Plant	Gazoldo Degli Ippoliti Via Bresciani, 16 – 46040 Gazoldo degli Ippoliti (MN) – Italia	
System of assessment and verification of the continuity of performance of the construction product	2+	
Name and ID number of the notified Body	RINA Services S.p.A. – Via Corsica, 12 – 16128 Genova - Italia 0474	
Certificates of Conformity for the control of the plant production have been issued for the following elements: <ul style="list-style-type: none"> • Starting inspection of the production plant and of the factory production control. • Surveillance, evaluation and regular audits of the factory production control 		
DECLARED PERFORMANCE		
Main Features	Performance	Harmonised specification
Dimensional Tolerances	As per Table 2	EN9445-2:2009
Elongation	As per Table 1	EN10088-4
Tensile strength		
Yield strength 0,2%		
Impact strength		
Weldability (Chemical Analysis)	According to specification	
Durability (Chemical Analysis)	As per Table 1	
Resistance to brittle fracture (see Impact Strength)		
Cold Forming (see Elongation)		
This declaration of performance is issued under the sole responsibility of the manufacturer identified above		
Signed for and on behalf of Marcegaglia S.p.A.		
<i>Arnaldo Ing. Barini</i> Gazoldo d.l. Plant Manager.		<i>Gazoldo D.l. 01/07/2013</i>
This declaration of performance is valid only in presence of the product identification label and delivery document or of the inspection certificate issued after delivery		

Table 1 – Mechanical properties of Cold Rolled Austenitic Steel

Product Grade			Type of product	Thk mm	Yield Strength		Tensile Strength	Elongation Fracture		Impact strength ISO-V		Intergranular corrosion resistance ^(f) Conditions of the supply
Quality	No.	Aisi			R _{p0,2}	R _{p1,0} ^(b)	R _m	A ₈₀ ^(d)	A ^(e)	KV		
							MPa ^(g)	%	%	> 10mm T.	J	
			(a)	max	MPa ^(g)	MPa ^(g)	< 3mm T	≥ 3mm T	J	J		
				Transversal ^(c)	min		%	%	min	min		
X2CrTiNb18	1.4509	441	C	8	230	250	430+630	18	18	-	-	Yes

a) Type of Product: C = Cold Rolled, H = Hot Rolled
 b) Value given as an indication only
 c) For Continuous Hot Rolled products the min. value of R_{p0,2} must be increased by 20MPa and the minimum value of R_{p1,0} must be increased by 10MPa.
 d) Values may apply to samples 80 mm long and 20 mm. wide, as well as 50 mm long and 12,5 mm wide
 e) Values apply to samples having 5,65√S₀.
 f) When required, it must comply with EN ISO 3651-2
 g) 1 MPa = 1N/mm²

Table 2 – Dimensional Tolerances EN9445-2

Tolerances of thickness for Wide Strips as per method A										
Thickness range		Regular Tolerance			Special Tolerances (S) for Nominal Widths W					
		For widths ≤ 2100mm			W ≤ 1000	1000 < W ≤ 1300	1300 < W ≤ 2100			
≥ 0,60 < 0,80		± 0,050			± 0,035	± 0,040	-			
≥ 0,80 < 1,00		± 0,060			± 0,040	± 0,045	± 0,050			
≥ 1,00 < 1,20		± 0,070			± 0,045	± 0,045	± 0,050			
≥ 1,20 < 1,50		± 0,080			± 0,050	± 0,055	± 0,060			
≥ 1,50 < 2,00		± 0,090			± 0,055	± 0,060	± 0,070			
≥ 2,00 < 2,50		± 0,100			-	-	-			
≥ 2,50 < 3,00		± 0,120			-	-	-			
≥ 3,00 < 4,00		± 0,140			-	-	-			

Above tolerances apply to the measurement method A as per point 17.2 of EN Rule, which allows to measure anywhere within 20 mm. from the edge in case of trimmed edges, or within 30 mm from edge if left untrimmed from rolling

Tolerances of width for Wide Strips		
Nominal Width	Tolerance (mm)	
≤ w < 1000	-0 +25	
1000 ≤ w ≤ 2100	-0 +30	

Tolerances of thickness for strips and sheets from Wide Strips									
Nominal thickness t		Regular Tolerances for Width w			Special Tolerances for Width w				
		w ≤ 1000	1000 < w ≤ 1300	13 000 < w ≤ 2100	w ≤ 1000	1000 < w ≤ 1300	13 000 < w ≤ 2100		
0.8	≤ t < 1.00	±0.055	±0.060	±0.070	±0.040	±0.050	±0.050		
1.00	≤ t < 1.20	±0.070	±0.070	±0.080	±0.050	±0.055	±0.060		
1.20	≤ t < 1.50	±0.080	±0.080	±0.100	±0.055	±0.060	±0.060		
1.50	≤ t < 2.00	±0.080	±0.090	±0.110	±0.065	±0.070	±0.080		
2.00	≤ t < 2.50	±0.090	±0.110	±0.130	-	-	-		
2.50	≤ t < 3.00	±0.110	±0.130	±0.150	-	-	-		
3.00	≤ t < 4.00	0.140	±0.150	±0.160	-	-	-		

Tolerances of width for strips and sheets from Wide Strips										
Nominal thickness t		Regular Tolerances for Width w				Special Tolerances for Width w				
		w ≤ 125	125 < w ≤ 250	250 < w ≤ 600	600 < w ≤ 1000	1000 < w ≤ 2100	w ≤ 125	125 < w ≤ 250	250 < w ≤ 600	
	t < 1.00	-0 +0.5	-0 +0.50	-0 +0.7	-0 +1.5	-0 +2.0	-0 +0.3	-0 +0.3	-0 +0.6	
1.00	≤ t < 1.50	-0 +0.7	-0 +0.70	-0 +1.0	-0 +1.5	-0 +2.0	-0 +0.4	-0 +0.5	-0 +0.7	
1.50	≤ t < 2.50	-0 +1.0	-0 +1.00	-0 +1.2	-0 +2.0	-0 +2.5	-0 +0.6	-0 +0.7	-0 +0.9	
2.50	≤ t < 3.50	-0 +1.2	-0 +1.2	-0 +1.5	-0 +3.0	-0 +3.0	-0 +0.8	-0 +0.9	-0 +1.0	

Table 2 – Dimensional Tolerances EN9445-2						
Tolerances of Length for sheets from Wide Strips						
Nominal Length L				Regular Tolerance (mm)		Special Tolerance (mm)
L ≤ 2000				-0 +5		-0 +3
2000 < L				-0 +0.0025 L		-0 +0.0015 L
Tolerances of Edge Camber for products deriving from Wide Strips						
Nominal Width w				Tolerances for size range (mm)		
				1000	2000	
10	≤	w	<	40	2.5	10
40	≤	w	<	125	2	8
125	≤	w	<	600	1.5	6
600	≤	w	<	2100	1	4
Tolerances of Squareness of sheets from Wide Strip						
Length L				Maximum difference on diagonal lengths (mm)		
		L	≤	3000	6	
3000	<	L	≤	6000	10	
		L	>	6000	15	
Tolerances of Flatness for Flat Products						
Wave Height h / Wave Length L ≤ 0,03 (for all thicknesses)						
Tolerances of Edge Displacement for Coils (each side)						
Trimmed Edges				35mm		
Untrimmed Edges				70mm		