

DECLARATION OF PERFORMANCE

NR. 0103/012

Rel. 0

Identification code of the product-type	Welded tube made of non-alloy structural steel S355J0H in accordance with EN10210:2006.	
Identification of the construction product	In accordance with the information included in the identification label with barcode and/or bundle number and in the inspection certificate.	
Intended use of the construction product	Hot finished hollow sections of non-alloy and fine grain for structural uses of circular, square, rectangular or elliptical forms.	
Manufacturer (registered office)	Marcegaglia S.p.A. Via Bresciani, 16 – 46040 Gazoldo degli Ippoliti (MN) – Italia	
Production plant	Casalmaggiore s.s.420 Sabbionetana – 26041 Casalmaggiore (CR) - Italia	
System of assessment and verification of constancy of performance of the construction product	2+	
Name and identification number of the notified body	RINA Service S.p.A. – Via Corsica, 12 – 16128 Genova - Italia 0474	
Issued the certificate of conformity of the factory production control on the basis of the following elements: <ul style="list-style-type: none"> • starting inspection of the production plant and of the factory production control. • surveillance, evaluation and continuous audits of the factory production control. 		
DECLARED PERFORMANCE		
Essential characteristics	Performance	Harmonised technical specification
Tolerances on dimensions and shape	In compliance with table 2	EN10210-2:2006
Elongation	In compliance with table 1	EN10210-1:2006
Tensile strength		
Yield strength		
Impact strength		
Weldability (CEV)	0,45% max	
Durability	N.P.D.	
This declaration of performance is issued under the sole responsibility of the manufacturer identified in the previous point.		
Signed for and on behalf of Marcegaglia S.p.A. by:		
Roberto Ing. Ferrari <i>Casalmaggiore Plant Manager</i>		<i>Casalmaggiore 01/07/2013</i>
This declaration of performance is valid only in presence of the material identification label and the waybill or the inspection certificate issued after delivery.		

Table 1 – Mechanical properties							
Steel grade		Minimum yield strength R_{eH}	Tensile strength R_m		Minimum elongation A _(a,b)	Minimum impact energy	
Steel name	Steel number	[MPa]	[MPa]		[%]	KV in J ^(d)	
		Specified thickness in mm					Test temperature
		≤ 16	≤ 3	> 3 ≤ 100	≤ 40		
S355J0H ^(c)	1.0547	355	510+680	470+630	22	20°	27
a. Longitudinal values. Transverse values are 2% lower. b. For thicknesses < 3 mm, see 9.2.2 of EN10210-1:2006. c. The impact properties are verified only when Option 1.3 is specified. d. For impact properties for reduced section test pieces see 6.6.2.							

Table 2 – Tolerances on shape, straightness and mass			
Outside dimensions (D, B e H)	Circular hollow sections	Square and rectangular hollow sections	Elliptical hollow sections
		± 1% with a minimum of ± 0,5 mm and a maximum of ± 10 mm	± 1% ¹⁾ with a minimum of ± 0,5 mm
Thickness (T)	-10% ²⁾		
Out of roundness (O)	2% for hollow sections having a diameter to thickness ratio not exceeding 100 ³⁾	-	
Concavity/Convexity (x_1, x_2) ⁽⁴⁾	-	1%	-
Squareness of side (θ)	-	90° ± 1°	-
External corner profile (C_1, C_2 o R) ⁵⁾	-	3T maximum at each corner	-
Twist (V)	-	2 mm ¹⁾ plus 0,5 mm/m length ¹⁾	
Straightness (e)	0,2 ¹⁾ % of total length and 3 mm over any 1 m length		
Mass (M)	± 6 % on individual delivered lengths		

Tolerances on length ⁽³⁾	Exact length	2000 mm ≤ L ≤ 6000 mm	⇒ 0; + 10 mm
		Standard length	> 6000 mm ⁷⁾
4000 mm ≤ L ≤ 16000 mm	⇒ +/- 500 mm ⁶⁾		

- For elliptical hollow sections of sizes H<250 mm the permitted tolerance is twice the value given in this table.
- The positive deviation is limited by the tolerance on mass.
- Where the diameter to thickness ratio exceeds 100, the tolerance on out of roundness shall be agreed.
- The tolerance on convexity and concavity is independent of the tolerance on outside dimensions.
- The sides need not to be tangential to the corner arcs.
- Option 2.1 (EN10210-2:2006) the tolerance on approximate length is 0; +150 mm.
- Common lengths available are 6m and 12m.