

## DECLARATION OF PERFORMANCE

### NR C3012

**Rev. 0**

Product Identification Code	Hot rolled steel product for Structural Use. <b>Grade S235JR according to EN10025-2:2004</b>
Identification	According to the information stated on the ID label with barcode / bundle number and bundle number in the inspection certificate.
Destiny and scope of application of product	Flat product for use in metal structures or in metal complexes and concrete structures.
Manufacturer (registered office)	<b>Marcegaglia Poland Sp.zo.o.</b> Ul. Kaliska 72, 46-320 Praszka - Poland
Production Plant	<b>Ligota Dolna</b> Ul. Przemysłowa 1, 46-320 Kluczbork - Poland
System of assessment and verification of the continuity of performance of the construction product	<b>2+</b>
Name and ID number of the notified Body	RINA Service S.p.A. – Via Corsica, 12 – 16128 Genova - Italia <b>0474</b>
Certificates of Conformity for the control of the plant production have been issued for the following elements: <ul style="list-style-type: none"> <li>initial inspection of the production plant and of the factory production control.</li> <li>surveillance, evaluation and regular audits of the factory production control.</li> </ul>	

### DECLARED PERFORMANCE

Main Features	Performance	Harmonised specification
Dimensional Tolerances	As per Table 2	EN10051:2010
Elongation	As per Table 1	EN10025-1:2004 EN10025-2:2004
Tensile strength		
Yield strength		
Impact strength		
Weldability (CEV)	0.35% max	
Durability	N.P.D.	

This declaration of performance is issued under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of Marcegaglia Poland Sp.zo.o:

*Filippo Nicoli*  
 Plant Director



*Ligota Dolna, 01.07.2013*

This declaration of performance is valid only in presence of the product identification label and delivery document or of the inspection certificate issued at the delivery.

**TABLE 1 - MECHANICAL CHARACTERISTICS**

Mechanical properties for steel grades quality groups with impact strength values specified

STEEL GRADE	ReH <sup>(a)</sup> MPa <sup>(b)</sup> Min	Rm <sup>(a)</sup> MPa <sup>(b)</sup>		Min. Percentage elongation after break % <sup>(a)</sup>								Impact strength KV <sup>(c)</sup>			
				Lo = 80 (mm)								Lo = 5,65√So	Temp.	Min energy	
				Nominal Thickness (mm)										(°C)	(J)
				≤ 16	< 3	≥ 3 ≤ 100	<sup>a)</sup>	≤ 1	> 1 ≤ 1,5	> 1,5 ≤ 2	> 2 ≤ 2,5	> 2,5 < 3	≥ 3 ≤ 40	> 6 ≤ 150	
S235JR	235	360 + 510	360 ÷ 510	l	17	18	19	20	21	26	20	27			
				t	15	16	17	18	19	24					
a) For sheets and strips ≥ 600 mm wide, these values relate to samples taken in a direction transverse (t) to the rolling direction. For all other products, the values for samples taken in parallel (l) to rolling direction are applied b) MPa = 1N/mm <sup>2</sup> c) Impact properties for products of quality group JR are tested if agreed at the order															

**TABLE 2 - DIMENSIONAL TOLERANCES**
**Tolerance on Thickness – dimension**

NOMINAL THICKNESS	Tolerances for nominal width			
	≤ 1200	> 1200 ≤ 1500	> 1500 ≤ 1800	> 1800
≤ 2,00	± 0,17	± 0,19	± 0,21	-
> 2,00 ≤ 2,50	± 0,18	± 0,21	± 0,23	± 0,25
> 2,50 ≤ 3,00	± 0,20	± 0,22	± 0,24	± 0,26
> 3,00 ≤ 4,00	± 0,22	± 0,24	± 0,26	± 0,27
> 4,00 ≤ 5,00	± 0,24	± 0,26	± 0,28	± 0,29
> 5,00 ≤ 6,00	± 0,26	± 0,28	± 0,29	± 0,31
> 6,00 ≤ 8,00	± 0,29	± 0,30	± 0,31	± 0,35
> 8,00 ≤ 10,00	± 0,32	± 0,33	± 0,34	± 0,40
> 10,00 ≤ 12,50	± 0,35	± 0,36	± 0,37	± 0,43
> 12,50 ≤ 15,00	± 0,37	± 0,38	± 0,40	± 0,46
> 15,00 ≤ 25,00	± 0,40	± 0,42	± 0,45	± 0,50

**Tolerance on width - dimension (mm)**

NOMINAL WIDTH	Raw edges	Trimmed edges
≤ 1200	-0 / +20	-0 / +3
> 1200 ≤ 1850	-0 / +20	-0 / +5
> 1850	-0 / +25	-0 / +6

Tolerances on products with trimmed edges apply up to nominal thickness 10mm  
 For thickness over 10mm the values of + deviation must be agreed upon order placement

**Tolerance on Length - dimension (mm)**

NOMINAL LENGHT	Lower	Upper
< 2000	-0	+10
≥ 2000 < 8000	-0	+0,005 x nominal length
≥ 8000	-0	+40

**Tolerance on Flatness - dimension (mm)**

NOMINAL THICKNESS	Nominal width	Flatness tolerances	Special flatness tolerance
≤ 2,00	≤ 1200	18	9
	> 1200 ≤ 1500	20	10
	> 1500	25	13
> 2,00 ≤ 25	≤ 1200	15	8
	> 1200 ≤ 1500	18	9
	> 1500	23	12

Flatness requirements for strips must be agreed upon order placement

**Tolerance on longitudinal edge camber or straightness**

SHEETS with nominal length < 5000 mm, q = 0,5% of length  
 SHEETS with nominal length ≥ 5000 mm, width ≥ 600 mm and with mill edges, q = 20 mm max for any length of 5000mm  
 SHEETS with nominal length ≥ 5000 mm, width ≥ 600 mm and trimmed edges, q = 15 mm max for any length of 5000mm  
 STRIPS with width ≥ 600, the edge camber shall not exceed 20mm for any length of 5000mm in case of mill edges and 15mm in case of trimmed edges. For strips with width < 600, the tolerances shall be agreed at the time of inquiry or order.

**Out-of-squareness**

The out-of-squareness for sheets is the orthogonal projection of a transverse edge over a longitudinal one and must not exceed 1% of actual width of the sheet.