

## **Declaration of Performance**

## N° 0103/008 rel.2

| Identification code of the product-type   | Welded tube made of non-alloy structural steel S460MH/1.8849 in accordance with EN10219-1:2006.  |
|---|--|
| 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  | Cold formed welded structural hollow sections of circular, square, or rectangular shape formed cold without subsequent heat treatment.       |
| Manufacturer (registered office)  | <b>Marcegaglia Carbon Steel</b><br>Via Bresciani, 16 – 46040 Gazoldo degli Ippoliti (MN) – Italy   |
| Production plant  | Casalmaggiore<br>s.s.420 Sabbionetana – 26041 Casalmaggiore (CR) – Italy   |
| System of assessment and verification of<br>constancy of performance of the<br>construction product | 2+   |
| Name and identification number of the<br>notified body  | RINA Service S.p.A. – Via Corsica, 12 – 16128 Genova - Italy<br><b>0474</b>  |
|   |  |

The notified body issued the certificate of conformity of the factory production control on the basis of the following elements:

- initial inspection of the production plant and of the factory production control;
- surveillance, evaluation and regular audits of the factory production control.

| Essential Characteristic                 |                                       | Performance  |                                   |  | Harmonised<br>Technical<br>specification                 |                |
|--|---------------------------------------|--------------|-----------------------------------|--|--|----------------|
| Tolerances on<br>dimensions and<br>shape | Round, square and rectangular section |              | In accordance with EN10219-2:2006 |  |  | -              |
| Durability<br>(chemical<br>composition)  | Nominal thickness (mm)                |              | Values                            |  |  |                |
|  | > ≤                                   |              | min (%) max (%)                   |  |  |                |
|  | -                                     | 16           | Al: 0,020                         | C: 0,16<br>Si: 0,60<br>Mn: 1,70<br>P: 0,035<br>S: 0,030<br>Nb: 0,050 | V: 0,12<br>Ti: 0,050<br>Ni: 0,30<br>Mo: 0,20<br>N: 0,025 |                |
| Yield strength                           | Nominal thickness (mm)                |              | Values                            |  |  |                |
|  | >                                     | ≤            | min (MPa)                         | max  | max (MPa)  |                |
|  | -                                     | 16           | 460                               | -  |  | EN10219-1:2006 |
| Tensile strength                         | Nominal th                            | ickness (mm) | Values                            |  |  |                |
|  | >                                     | ≤            | min (MPa)                         | max  | max (MPa)  |                |
|  | -                                     | 16           | 530                               | 7  | 720  |                |
| Elongation (a,b)                         | Nominal thickness (mm)                |              | Values                            |  |  | 1              |
|  | >                                     | ≤            | min (%)                           | max (%)  |  |                |
|  | -                                     | 16           | 17                                |  | -  |                |
| Impact strength Nominal thick            |                                       | ickness (mm) | Values                            |  |  |                |
| (c,d)                                    | >                                     | ≤            | min (J)                           |  |  |                |
|  | -                                     | 16           | 40 at -20°C                       |  | -  |                |
| Weldability CEV                          | Nominal thickness (mm)                |              | Values                            |  |  |                |
|  | >                                     | 5            |                                   | ma   | max (%)  |                |
|  | -                                     | 16           | -                                 | 0  | 0,46   |                |

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) n.305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of Marcegaglia Carbon Steel by:

Roberto Ing. Fernari Casalmaggiore/Plant Manager-Casalmaggiore 02/11/2015

This declaration of performance is valid only in presence of the material identification label and the waybill or the inspection certificate issued after delivery.