

Declaration of Performance

(According to Annex III of EU Regulation No. 305/2011 and amended per EU Regulation No. 574/2014)

DOP/2018/S460N

1. Unique identification code of the product-type:

DOP/2018/S460N

2. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification:

Hot-rolled plates from structural steels accordant to the regulations of EN10025-2, -3, -5

3. Name, registered trade name or registered trade mark and contact address of the manufacturer:

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4. Name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12 (2):

Not applicable

5 System or systems of assessment and verification of constancy of performance (AVCP) of the construction product as set out in Annex V to Regulation (EU) No. 305/2011:

System 2+

6 In case of the declaration of performance concerning a construction product covered by a harmonized standard:

Hot rolled plates from structural steels with strength level S235 up to S460 according to DIN EN 10025-2,-3,-5 Notified factory production control certification body TUV NORD Systems Gmbh & Co. KG No. 0045 Große Bahnstraße 31 D-22525 Hamburg Germany Certificate No: 0045-CPR-0950 dated 01.09.2015



7 Declared performance

| Essential Characteristic | Per | Harmonised Technical Specification | | | |
|--------------------------|---|---------------------------------------|-------------------|--|--|
| | Nominal thickness (mm) | Values (MPa) Min | | | |
| Yield Strength | ≤ 16 | 460 | | | |
| | > 16 ≤ 40 | 440 | | | |
| | > 40 ≤ 63 | 430 | | | |
| | > 63 ≤ 80 | 410 | | | |
| | > 80 ≤ 100 | 400 | | | |
| | > 100 ≤ 150 | 380 | | | |
| | > 150 ≤ 200 | 370 | | | |
| | > 200 ≤ 250 | - | | | |
| | Nominal thickness (mm) | Values (MPa) | | | |
| Tensile Strength | ≤ 100 | | | | |
| | > 100 ≤ 200 | 530 to 710 | | | |
| | > 200 ≤ 250 | - | | | |
| | Nominal thickness (mm) Values (%) Mi | | EN 10025-3 (2004) | | |
| | ≤ 16 | | | | |
| Elongation | > 16 ≤ 40 | 17 | | | |
| Liongation | > 40 ≤ 63 | 17 | | | |
| | > 63 ≤ 80 | 17 | | | |
| | > 80 ≤ 200 | 17 | | | |
| | > 200 ≤ 250 | - | | | |
| | Test Temperature (°C) | Values (J) | | | |
| | + 20 | min 55 | 1 | | |
| Impact strength for | 0 | min 47 | | | |
| longitudinal test | - 10 min 43 | | | | |
| specimens KV | - 20 | | | | |
| | - 30 | - | | | |
| | - 40 | - | | | |
| | - 50 | - | | | |



Chemical composition of the ladle analysis

| | C% max. | Si % max. | Mn % | P % max. | S % max. | Nb % max. | V % max. | Al _{total} % min. | Ti % max. | Cr % max. | Ni % max. | Mo % max. | Cu % max. | N % max. |
|-------|------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------------------------|--------------|--------------|--------------|--------------|--------------|-------------|
| S460N | 0.20 | 0.60 | 1.00 - 1.70 | 0.030 | 0.025 | 0.05 | 0.20 | 0.02 | 0.05 | 0.30 | 0.80 | 0.10 | 0.55 | 0.025 |

Maximum CEV based on the ladle analysis

| | Maximum CEV in % for nominal product thickness in mm | | | | | | | | |
|-------|--|-----------|------------|--|--|--|--|--|--|
| | ≤63 | >63 ≤ 100 | >100 ≤ 250 | | | | | | |
| S460N | 0.53 | 0.54 | 0.55 | | | | | | |

8 The performance of the product identified in points 1 and 2 is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identify above

Signed for and on behalf of the manufacturer by: Gary Robinson, Quality Manager

Gateshead, 15th of March 2018