

# DECLARATION OF PERFORMANCE

HECO-DoP\_ETA\_11/0284\_HFP-HT\_1607\_GB

1. Unique identification code of the product-type:

**HECO-FIX-plus, HECO-TOPIX, HECO-TOPIX-T and HECO-TOPIX-CC screws**

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):

**Identification acc. ETA 11/0284 Annex 6**

3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:

**ETA 11/0284 chapter 1**

|                      |  |
|----------------------|--|
| <b>Generic Type</b>  | HECO-FIX-plus, HECO-TOPIX, HECO-TOPIX-T and HECO-TOPIX-CC screws |
| <b>Diameters</b>     | 3,5 mm; 4,0 mm; 4,5 mm; 5,0 mm; 6,0/6,5 mm; 8,0/8,5 mm; 10,0 mm  |
| <b>Intendend use</b> | self-tapping screws for use in timber construction               |
| <b>Loads</b>         | static or quasi-static loading                                   |
| <b>Durability</b>    | screws zinc plated service classes 1 - 2 acc. Eurocode 5         |
|                      | screws made of stainless steel service classes 3 acc. Eurocode 5 |

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):

**HECO-Schrauben GmbH & Co. KG**  
**Dr.-Kurt-Steim-Str. 28**  
**78713 Schramberg (Germany)**

5. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

**System 3**

6. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

**ETA-11/0284** has been issued by the DIBt on the basis of **EAD DP 15-13-0118-06.03**



7. Declared performance

Table 1.1: HECO-TOPIX and HECO-FIX-plus screws made of carbon steel

| Characteristic                                      | Screws<br>Ø  | HECO-TOPIX- and HECO-FIX-plus screws       |   |      |      |      |      |      |         |         | HECO-TOPIX-<br>CC screws |      | HECO-TOPIX-<br>T screws |  |
|---|--|--|---|------|------|------|------|------|---------|---------|--------------------------|------|-------------------------|--|
|   |  | 3,5  | 4,0   | 4,5  | 5,0  | 6,0  | 8,0  | 10,0 | 6,0/6,5 | 8,0/8,5 | 8,0                      | 10,0 |                         |  |
| <b>Mechanical resistance an stability (BWR 1)</b>   |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 1.1   | l, d, d <sub>h</sub> , l <sub>g</sub> , d <sub>1</sub>   | [mm]                                       | according ETA-11/0284 Annex 6   |      |      |      |      |      |         |         |                          |      |                         |  |
| 1.2   | M <sub>y,k</sub>   | ETA-11/0284<br>Table A.2.1 & A.2.2<br>[Nm] | 2,3   | 2,8  | 4,5  | 5,9  | 9,5  | 20,0 | 36,0    | 9,5     | 20,0                     | 20,0 | 36,0                    |  |
| 1.3   | F <sub>ax,k</sub>  | ETA-11/0284<br>A.2.3.1<br>[N/mm²]          | 13,7  | 13,7 | 13,7 | 11,8 | 11,8 | 11,8 | 11,8    | 12,5    | 12,5                     | 10,5 | 10,5                    |  |
| 1.4   | f <sub>head,k</sub>  | ETA-11/0284<br>A.2.3.2<br>[N/mm²]          | f <sub>head,k</sub> = 14,0 N/mm² for d <sub>h</sub> < 23 mm; f <sub>head,k</sub> = 9,8 N/mm² for 23 mm < d <sub>h</sub> < 35 mm   |      |      |      |      |      |         |         |                          |      |                         |  |
| 1.5   | f <sub>tens,k</sub>  | ETA-11/0284<br>Table A.2.1<br>[kN]         | 3,8   | 4,7  | 6,4  | 7,9  | 11,3 | 20,0 | 30,0    | 10,0    | 18,0                     | 20,0 | 25,0                    |  |
| 1.6   | R <sub>0,2,k</sub>   | [Nmm²]                                     | NPD   | NPD  | NPD  | NPD  | NPD  | NPD  | NPD     | NPD     | NPD                      | NPD  | NPD                     |  |
| 1.7   | f <sub>tor,k</sub>   | ETA-11/0284<br>Table A.2.1<br>[Nm]         | 2,2   | 2,9  | 4,5  | 6,5  | 11,0 | 25,0 | 42,0    | 10,0    | 23,0                     | 24,0 | 42,0                    |  |
| 1.8   | f <sub>inst,m</sub>  | ETA-11/0284<br>A.2.5<br>[Nm]               | 1,5   | 1,9  | 3,0  | 4,3  | 7,3  | 16,7 | 28,0    | 6,7     | 15,3                     | 16,0 | 28,0                    |  |
| 1.9   | a <sub>1</sub> ; a <sub>2</sub> ; a <sub>1,i</sub> ; a <sub>1,c</sub> ;<br>a <sub>2,i</sub> ; a <sub>2,c</sub> | ETA-11/0284<br>A.2.4<br>[mm]               | according ETA 11/0284 A.2.4   |      |      |      |      |      |         |         |                          |      |                         |  |
| 1.10  | K <sub>ser</sub>   | ETA-11/0284<br>A.2.3<br>[N/mm]             | Softwood: K <sub>ser</sub> = 780 * d <sup>0,2</sup> * l <sub>ef</sub> <sup>0,4</sup> ; Hardwood: K <sub>ser</sub> = 870 * d <sup>0,2</sup> * l <sub>ef</sub> <sup>0,4</sup> |      |      |      |      |      |         |         |                          |      |                         |  |
| 1.11  | Corrosion<br>protection  | ETA-11/0284<br>A.2.6                       | Table A.2.5   |      |      |      |      |      |         |         |                          |      |                         |  |
| <b>Safety in case of fire (BWR 2)</b>               |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 2.1   |  | ETA-11/0284<br>Chapter 3.2                 | Class A1  |      |      |      |      |      |         |         |                          |      |                         |  |
| <b>Hygiene, health and the environment (BWR 3)</b>  |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 3.1   |  | ETA-11/0284<br>Chapter 3.3                 | not applicable  |      |      |      |      |      |         |         |                          |      |                         |  |
| <b>Safety and accessibility in use (BWR 4)</b>      |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 4.1   |  | ETA-11/0284<br>Chapter 3.4                 | same as BWR 1   |      |      |      |      |      |         |         |                          |      |                         |  |
| <b>Protection against noise (BWR 5)</b>             |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 5.1   |  | ETA-11/0284<br>Chapter 3.5                 | not applicable  |      |      |      |      |      |         |         |                          |      |                         |  |
| <b>Energy economy and heat retention (BWR 6)</b>    |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 6.1   |  | ETA-11/0284<br>Chapter 3.6                 | not applicable  |      |      |      |      |      |         |         |                          |      |                         |  |
| <b>Sustainable use of natural resources (BWR 7)</b> |  |  |   |      |      |      |      |      |         |         |                          |      |                         |  |
| 7.1   |  | ETA-11/0284<br>Chapter 3.7                 | NPD   |      |      |      |      |      |         |         |                          |      |                         |  |





Table 1.2: HECO-TOPIX and HECO-FIX-plus screws made of stainless steel

| Characteristic                                      | Screws Ø  | HECO-TOPIX- and HECO-FIX-plus screws |                      |   |      |      |      |      |         | HECO-TOPIX-CC screws |     | HECO-TOPIX-T screws |      |      |
|---|---|--------------------------------------|----------------------|---|------|------|------|------|---------|----------------------|-----|---------------------|------|------|
|   |   | 3,5                                  | 4,0                  | 4,5   | 5,0  | 6,0  | 8,0  | 10,0 | 6,0/6,5 | 8,0/8,5              | 8,0 | 10,0                |      |      |
| <b>Mechanical resistance and stability (BWR 1)</b>  |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 1.1   | l, d, d <sub>k</sub> , l <sub>g</sub> , d <sub>1</sub>  | [mm] according ETA-11/0284 Annex 6   |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 1.2   | M <sub>y,k</sub>  | ETA-11/0284 Table A.2.1 & A.2.2      | [Nm]                 | 1,9   | 2,8  | 3,4  | 4,4  | 7,1  | 17,0    | 30,0                 | -   | -                   | 15,0 | 27,0 |
| 1.3   | F <sub>ax,k</sub>   | ETA-11/0284 A.2.3.1                  | [N/mm <sup>2</sup> ] | 13,7  | 13,7 | 13,7 | 11,8 | 11,8 | 11,8    | 11,8                 | -   | -                   | 10,5 | 10,5 |
| 1.4   | f <sub>head,k</sub>   | ETA-11/0284 A.2.3.2                  | [N/mm <sup>2</sup> ] | f <sub>head,k</sub> = 14,0 N/mm <sup>2</sup> for d <sub>h</sub> < 23 mm; f <sub>head,k</sub> = 9,8 N/mm <sup>2</sup> for 23 mm < d <sub>h</sub> < 35 mm                     |      |      |      |      |         |                      |     |                     |      |      |
| 1.5   | f <sub>tens,k</sub>   | ETA-11/0284 Table A.2.1              | [kN]                 | 2,9   | 3,8  | 4,8  | 5,9  | 7,5  | 15,0    | 22,0                 | -   | -                   | 14,0 | 22,0 |
| 1.6   | R <sub>0,2,k</sub>  |                                      | [Nmm <sup>2</sup> ]  | NPD   | NPD  | NPD  | NPD  | NPD  | NPD     |                      | -   | -                   | NPD  | NPD  |
| 1.7   | f <sub>tor,k</sub>  | ETA-11/0284 Table A.2.1              | [Nm]                 | 2,0   | 2,9  | 3,5  | 5,0  | 7,0  | 19,0    | 35,0                 | -   | -                   | 18,0 | 37,0 |
| 1.8   | f <sub>inst,m</sub>   | ETA-11/0284 A.2.5                    | [Nm]                 | 1,3   | 1,9  | 2,3  | 3,3  | 4,7  | 12,7    |                      | -   | -                   | 12,0 | 24,7 |
| 1.9   | a <sub>1</sub> ; a <sub>2</sub> ; a <sub>1,i</sub> ; a <sub>1,c</sub> ; a <sub>2,i</sub> ; a <sub>2,c</sub> | ETA-11/0284 A.2.4                    | [mm]                 | according ETA 11/0284 A.2.4   |      |      |      |      |         |                      |     |                     |      |      |
| 1.10  | K <sub>ser</sub>  | ETA-11/0284 A.2.3                    | [N/mm]               | Softwood: K <sub>ser</sub> = 780 * d <sup>0,2</sup> * l <sub>ef</sub> <sup>0,4</sup> ; Hardwood: K <sub>ser</sub> = 870 * d <sup>0,2</sup> * l <sub>ef</sub> <sup>0,4</sup> |      |      |      |      |         |                      |     |                     |      |      |
| 1.11  | Corrosion protection  | ETA-11/0284 A.2.6                    |                      | according ETA-11/0284 A.2.6   |      |      |      |      |         |                      |     |                     |      |      |
| <b>Safety in case of fire (BWR 2)</b>               |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 2.1   |   | ETA-11/0284 Chapter 3.2              |                      | Class A1  |      |      |      |      |         |                      |     |                     |      |      |
| <b>Hygiene, health and the environment (BWR 3)</b>  |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 3.1   |   | ETA-11/0284 Chapter 3.3              |                      | not applicable  |      |      |      |      |         |                      |     |                     |      |      |
| <b>Safety and accessibility in use (BWR 4)</b>      |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 4.1   |   | ETA-11/0284 Chapter 3.4              |                      | same as BWR 1   |      |      |      |      |         |                      |     |                     |      |      |
| <b>Protection against noise (BWR 5)</b>             |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 5.1   |   | ETA-11/0284 Chapter 3.5              |                      | not applicable  |      |      |      |      |         |                      |     |                     |      |      |
| <b>Energy economy and heat retention (BWR 6)</b>    |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 6.1   |   | ETA-11/0284 Chapter 3.6              |                      | not applicable  |      |      |      |      |         |                      |     |                     |      |      |
| <b>Sustainable use of natural resources (BWR 7)</b> |   |                                      |                      |   |      |      |      |      |         |                      |     |                     |      |      |
| 7.1   |   | ETA-11/0284 Chapter 3.7              |                      | NPD   |      |      |      |      |         |                      |     |                     |      |      |

8. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Schramberg, 29.07.2016

p.p.

Andreas Hettich, Head of PM/Marketing

