

EN

## DECLARATION OF PERFORMANCE

according to Annex III of the Regulation (EU) Nr. 305/2011 (Construction Products Regulation)

Hilti powder-actuated fastener X-U16 S12  
No. Hilti-DX-DoP-007

**1. Unique identification code of the product-type:**

Hilti powder-actuated fastener X-U16 S12 in combination with Hilti powder-actuated fastening tool DX 462

**2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):** Type and lot number are displayed on the packaging

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

Intended use	
Base material	Structural steel S235, S275 and S355 in qualities JR, JO, J2, K2 according to EN 10025-2.
Loading	Static and quasi-static loads in building construction.

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

Hilti Aktiengesellschaft, Business Unit Direct Fastening, 9494 Schaan, Fürstentum Liechtenstein

**5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):** n.a.

**6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:** System 2+

**7. In case of the declaration of performance concerning a construction product covered by a harmonised standard:** n.a.

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

DIBt, Deutsches Institut für Bautechnik issued ETA-16/0082 on the basis of EAD 330153-00-0602. The notified body MPA-Stuttgart 0672 performed third party tasks under system 2+ and issued the certificate of conformity of the factory production control 0672-CPR-0623.

**9. Declared performance:**

Essential characteristics	Performance
Characteristic shear resistance $V_{Rk}$ and tension resistance $N_{Rk}$	See Annex C1 of ETA-16/0082
Types of connection	See Annex B2 of ETA-16/0082
Application limit	See Annex B3 of ETA-16/0082
Resistance to fire	See Annex C1 of ETA-16/0082

The relevant annexes from ETA-16/0082 as referenced above are summarized below:

## Annex C1 of ETA-16/0082

**Table 4: Characteristic shear resistance  $V_{Rk}$  and tension resistance  $N_{Rk}$**

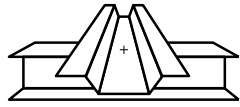
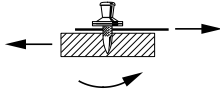
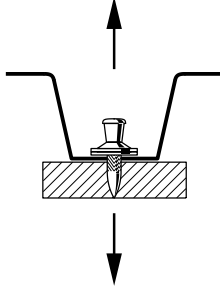
sheeting thickness $t_i$ [mm]	Shear $V_{Rk}$ [kN]	Tension $N_{Rk}$ [kN]	Types of connection
0.75	2.4	2.8	a
1.00	3.6	3.6	a
1.25	5.2	4.4	a
1.50	5.2	4.4	a

**Table 5: Design shear resistance  $V_{Rd}$  and tension resistance  $N_{Rd}$**

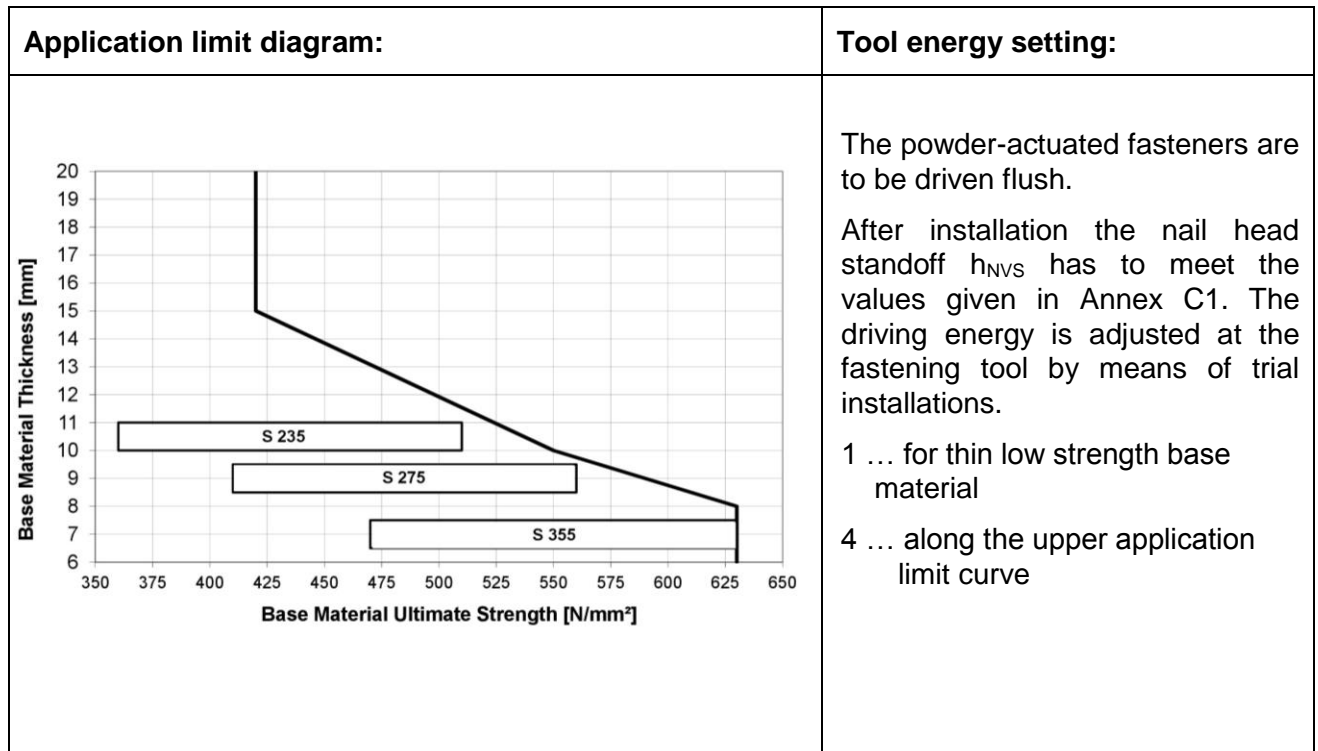
$V_{Rd} = V_{Rk} / \gamma_M$	$N_{Rd} = \alpha_{cycl} N_{Rk} / \gamma_M$ $\alpha_{cycl} = 1.0$
$\gamma_M = 1.25$ in the absence of national regulations	$\alpha_{cycl}$ considers the effect of repeated wind loads $\alpha_{cycl} = 1.0$ for all sheeting thickness $t_i$ $\gamma_M = 1.25$ in the absence of national regulations

## Annex B2 of ETA-16/0082

**Table 3: Type of connection and corresponding loading conditions**

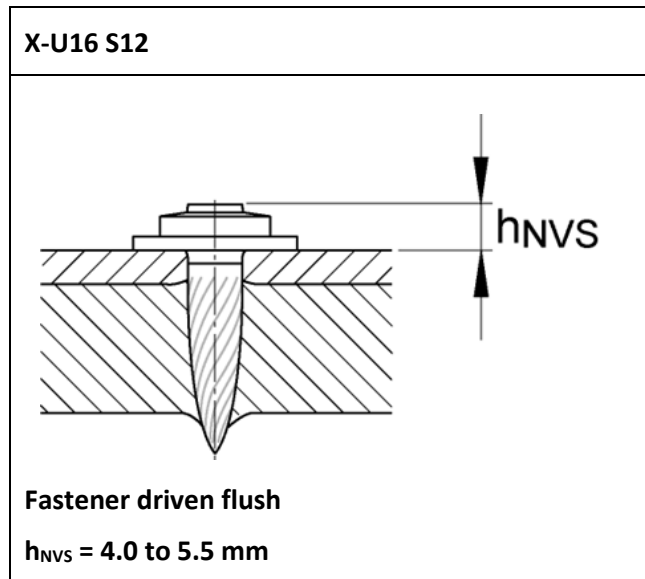
	Type of connection
	Type a
	
Type of loading	Single connection
Shear loading	
Tension loading	

**Annex B3 of ETA-16/0082**



**Powder-actuated fastening tool DX 462 with 12 mm fastener guide and cartridge 6.8/11M**

<p>Piston: X-462-P8, Fastener Guide: X-462-F8S12</p>	<p>Black: Extra high load (level 7) S235 – S355: Black</p>
<p>Wheel on tool allowing regulation of the driving energy:</p> <p>Setting 1: Minimum energy Setting 4: Maximum energy</p>	

**Annex C1 of ETA-16/0082****Fastener inspection – nail head standoff  $h_{NVS}$** **Resistance to fire**

The part of the structure in which the powder-actuated fasteners X-U16 S12 are intended to be installed shall be tested, using the test method relevant for the corresponding fire resistance class, in order to be classified according to the appropriate part of EN 13501.

**10. 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:



**Norbert Wohlwend**

Head of Quality Direct Fastening

Hilti Aktiengesellschaft, Schaan: 25.8.2016