

EN

DECLARATION OF PERFORMANCE

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

Hilti S-ID fasteners and S-IP / S-IW load plates
for systems of mechanically fastened flexible roof waterproofing membrane
No. Hilti-SF-DoP-008

1. Unique identification code of the product-type: Hilti S-ID fasteners and S-IP / S-IW load plates for systems of mechanically fastened flexible roof waterproofing membrane

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 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:

Generic type and use	Fastening for systems of mechanically fastened flexible roof waterproofing membrane on steel, aluminium and aluminium alloys, Oriented Strand Boards (OSB)
Product size covered	Screw diameter 4.8, 6.7, Load plate diameter 40, 64x64, 40x40, 80x40
Base material	Steel EN 10346, aluminium and aluminium alloys EN 755-2, Oriented Strand Boards (OSB) EN 300
Fastener material	Screws coated galvanized carbon steel or stainless steel S-IP load plates: Polyamide S-IW load plates: galvanized steel
Loading	Static & quasi static (wind loading)

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 harmonized standard: n.a.

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued: ETA-Danmark A/S issued ETA-17/0346 on the basis of ETAG 006-2012. The notified body Karlsruher Institut für Technologie (KIT) 0769 performed third party tasks under system 2+ and issued the certificate of conformity of the production control 0769-CPR-VAS-00682.

9. Declared performance:

Essential characteristics	Performance data	Harmonized technical specification
Characteristic axial loading resistance	Annex 1; ETA-17/0346, Annex B1, B2	ETA-17/0346 ETAG 006-2012
Corrosion class	Annex 2; ETA-17/0346, Annex B3	
Resistance to unwinding	Annex 3; ETA-17/0346, Annex B3	
Mechanical resistance/brittleness	Annex 4; ETA-17/0346, Annex B4	

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:

Lars Taenzer
Head of Business Unit Direct Fastening

Pierre Hohmeier
Head of Quality Screw Fastening

Hilti Aktiengesellschaft, Schaan, 01.07.2017

Annex 1:
ETA-17/0346, Annex B1

English translation prepared by ETA-Danmark

Fastener	Thickness of support t [mm]	Characteristic axial loading resistance N_{Rk} [N]	Substrate	
Profiled metal decking substrate (standard)				
S-IDP 4.8C/40xL	0.75	970	Steel, S320GD EN 10346	
	1.00	1340		
	1.25	1340		
S-IDP 4.8C/8040xL	0.75	1090		
	1.00	1470		
	1.25	1470		
S-IDP 4.8S/40xL	0.75	970		
	1.00	1340		
S-IDP 4.8S/8040xL	0.75	1020		
	1.00	1470		
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40	$1.20 \leq t \leq 3.00$	1510		Steel S280GD S320 GD S350 GD S390 GD S420GD S450GD EN 10346
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40x40	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LC 4.8xL + S-IW 4.9 AZ 64x64	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LC 4.8xL + S-IW 4.9 AZ 80x40	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LC 4.8xL + S-IP 40xL	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LC 4.8xL + S-IP 8040xL	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40x40	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 64x64	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 80x40	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LSS 4.8xL + S-IP 40xL	$1.20 \leq t \leq 3.00$	1510		
S-ID 01LSS 4.8xL + S-IP 8040xL	$1.20 \leq t \leq 3.00$	1510		
Profiled metal decking substrate (acoustic)				
S-IDP 6.7C/40xL	0.75	1030	Steel, S320GD EN 10346	
	1.00	1660		
	1.25	1660		
S-IDP 6.7C/8040xL	0.75	1030		
	1.00	1660		
	1.25	1660		

Annex 1:
ETA-17/0346, Annex B2

English translation prepared by ETA-Danmark

Fastener	Thickness of support t [mm]	Characteristic axial loading resistance N _{Rk} [N]	Substrate
Aluminium substrate			
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40	1.65 ≤ t ≤ 3.00	1990	Aluminium and aluminium alloys, EN 755-2 with f _u ≥ 245 N/mm ²
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40x40	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LC 4.8xL + S-IW 4.9 AZ 64x64	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LC 4.8xL + S-IW 4.9 AZ 80x40	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LC 4.8xL + S-IP 40xL	1.65 ≤ t ≤ 3.00	1830	
S-ID 01LC 4.8xL + S-IP 8040xL	1.65 ≤ t ≤ 3.00	1830	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40x40	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 64x64	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 80x40	1.65 ≤ t ≤ 3.00	1990	
S-ID 01LSS 4.8xL + S-IP 40xL	1.65 ≤ t ≤ 3.00	1830	
S-ID 01LSS 4.8xL + S-IP 8040xL	1.65 ≤ t ≤ 3.00	1830	
Timber substrate			
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40	≥ 18	870	Oriented Strand Boards (OSB) OSB/3 EN 300
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40x40	≥ 18	870	
S-ID 01LC 4.8xL + S-IW 4.9 AZ 64x64	≥ 18	870	
S-ID 01LC 4.8xL + S-IW 4.9 AZ 80x40	≥ 18	870	
S-ID 01LC 4.8xL + S-IP 40xL	≥ 18	870	
S-ID 01LC 4.8xL + S-IP 8040xL	≥ 18	870	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40	≥ 18	870	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40x40	≥ 18	870	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 64x64	≥ 18	870	
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 80x40	≥ 18	870	
S-ID 01LSS 4.8xL + S-IP 40xL	≥ 18	870	
S-ID 01LSS 4.8xL + S-IP 8040xL	≥ 18	870	

Annex 2:
ETA-17/0346, Annex B3

English translation prepared by ETA-Danmark

Fastener	Corrosion class ¹⁾
S-IDP 4.8C/40xL	C15
S-IDP 4.8C/8040xL	C15
S-IDP 4.8S/40xL	not relevant
S-IDP 4.8S/8040xL	not relevant
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40	C15
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40x40	C15
S-ID 01LC 4.8xL + S-IW 4.9 AZ 64x64	C15
S-ID 01LC 4.8xL + S-IW 4.9 AZ 80x40	C15
S-ID 01LC 4.8xL + S-IP 40xL	C15
S-ID 01LC 4.8xL + S-IP 8040xL	C15
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40	C15
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40x40	C15
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 64x64	C15
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 80x40	C15
S-ID 01LSS 4.8xL + S-IP 40xL	not relevant
S-ID 01LSS 4.8xL + S-IP 8040xL	not relevant
S-IDP 6.7C/40xL	C15
S-IDP 6.7C/8040xL	C15

- ¹⁾ class C2 = surface corrosion = 0 % after 2 cycles
 class C7 = surface corrosion ≤ 5 % after 7 cycles
 class C15 = surface corrosion ≤ 15 % after 15 cycles

Annex 3:
ETA-17/0346, Annex B3

English translation prepared by ETA-Danmark

The fasteners are assessed as resistant to:

- rotation of the fastener head ≤ ¼ turn after 500 cycles
- rotation of the fastener head ≤ ½ turn after 900 cycles
- vertical movement ≤ 1mm after 900 cycles

Annex 4:
ETA-17/0346, Annex B4

English translation prepared by ETA-Danmark

Fastener	Mechanical resistance before and after heat ageing: drop height [m] ¹⁾
S-IDP 4.8C/40xL	passed
S-IDP 4.8C/8040xL	passed
S-IDP 4.8S/40xL	passed
S-IDP 4.8S/8040xL	passed
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40	not relevant
S-ID 01LC 4.8xL + S-IW 4.9 AZ 40x40	not relevant
S-ID 01LC 4.8xL + S-IW 4.9 AZ 64x64	not relevant
S-ID 01LC 4.8xL + S-IW 4.9 AZ 80x40	not relevant
S-ID 01LC 4.8xL + S-IP 40xL	passed
S-ID 01LC 4.8xL + S-IP 8040xL	passed
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40	not relevant
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 40x40	not relevant
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 64x64	not relevant
S-ID 01LSS 4.8xL + S-IW 4.9 AZ 80x40	not relevant
S-ID 01LSS 4.8xL + S-IP 40xL	passed
S-ID 01LSS 4.8xL + S-IP 8040xL	passed
S-IDP 6.7C/40xL	passed
S-IDP 6.7C/8040xL	passed

¹⁾ Heat ageing of the plastic part of the fastener for 28 days at 80 ± 2 °C.
Drop height ≥ 1.0 m is checked.