



EN

DECLARATION OF PERFORMANCE

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

Hilti powder-actuated fastener X-X (P8, MX)
No. Hilti-DX-DoP-010

1. Unique identification code of the product-type: Hilti powder-actuated fasteners X-X 22 P8, X-X 22 MX, X-X 62 P8, X-X 62 MX, X-X 72 P8, X-X 72 MX in combination with Hilti powder-actuated fastening tools DX 6 MX and DX 6 F8

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	Power-actuated fastener to attach drywall track & deflection head to concrete
Base material	Reinforced or unreinforced normal weight concrete according to EN 206-1:2000. Strength classes C20/25 to C40/50 according to EN 206-1:2000. Cracked and non-cracked concrete
Environmental condition	Structures subject to dry indoor conditions.
Loading	Characteristic values of static and quasi-static resistance in non-cracked and cracked concrete Characteristic values of fire resistance in non-cracked and cracked concrete

4. Name, registered trade name or registered trademark 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:

DIBt, Deutsches Institut für Bautechnik issued ETA-22/0876 on the basis of EAD 330083-04-0601. The notified body MPA-Stuttgart 0672 performed third party tasks under system 2+.

9. Declared performance:

Essential characteristics	Performance
Characteristic values of static and quasi-static resistance in non-cracked and cracked concrete	Annex C1, table 5a and 5b of ETA-22/0876 (details see below)
Characteristic values of fire resistance in non-cracked and cracked concrete	Annex C2, table 6a and 6b of ETA-22/0876 (details see below)
Durability	Structures subject to dry conditions.
Reaction to fire	Class A1
Resistance to fire	Annex

The following tables provide the performance of the X-X fasteners per ETA-22/0876:

Static resistance in cracked and non-cracked concrete

Table 5a: Track fastening (incl. Hilti TTS or PE sealant)

Fastener X-X 22 MX or P8		Track thickness $t^{(1)}$	
		0,6 mm	1,0 mm
Characteristic shear resistance V_{Rk} C20/25 – C40/50	[kN]	1,25	1,49
Partial factor $\gamma_M^{(2)}$	[-]	1,5	
Partial factor $\gamma_F^{(2)}$	[-]	1,4	
Minimum spacing s_{min}	[mm]	200	
Maximum spacing s_{max}	[mm]	600	
Minimum edge distance c_{min}	[mm]	150	
Minimum thickness of fixture t_{fix}	[mm]	0,6	
Maximum thickness of fixture t_{fix}	[mm]	1,0	

1) Intermediate values of track thicknesses can be linearly interpolated

2) In absence of national regulations

Table 5b: Gypsum deflection head (3 to 4 gypsum layers)

Fastener: Configuration:		X-X 62 MX or P8 3 gypsum layers (12,5 mm each)	X-X 72 MX or P8 4 gypsum layers (12,5 mm each)
Characteristic shear V_{Rk} C20/25 – C40/50	[kN]	0,94	0,85
Partial factor $\gamma_M^{(1)}$	[-]	1,5	
Partial factor $\gamma_F^{(1)}$	[-]	1,4	
Minimum spacing s_{min}	[mm]	200	
Maximum spacing s_{max}	[mm]	600	
Minimum edge distance c_{min}	[mm]	150	
Thickness of fixture t_{fix}	[mm]	38,1 (gypsum & track)	50,6 (gypsum & track)

1) In absence of national regulations

Fire resistance in cracked and non-cracked concrete

Table 6a: Track fastening (incl. Hilti TTS or PE sealant)

Hilti X-X 22 MX / P8	Fire duration	Track thickness t ¹⁾	
		0,6 mm	1,0 mm
Characteristic Shear resistance V_{Rk} C20/25 – C40/50	30 min	0,20	0,23
	60 min	0,16	0,19
	90 min	0,12	0,15
	120 min	0,05	0,11
Partial factor $\gamma_M^{2)}$	[-]	1,0	
Partial factor $\gamma_F^{2)}$	[-]	1,0	
Minimum spacing s_{min}	[mm]	200	
Maximum spacing s_{max}	[mm]	600	
Minimum edge distance c_{min}	[mm]	150	

1) Intermediate values of track thicknesses can be linearly interpolated

2) In absence of national regulations

Table 6b: Gypsum deflection head (3 to 4 gypsum layers)

Hilti X-X 62 MX / P8 (3 gypsum layers) Hilti X-X 72 MX / P8 (4 gypsum layers)	Fire duration	Total thickness	
		Gypsum 3 x 12,5 mm Track 0,6 mm	Gypsum 4 x 12,5 mm Track 0,6 mm
Characteristic shear resistance V_{Rk} C20/25 – C40/50	30 min	0,17	
	60 min	0,17	
	90 min	0,12	
Partial factor $\gamma_M^{1)}$	[-]	1,0	
Partial factor $\gamma_F^{1)}$	[-]	1,0	
Minimum spacing s_{min}	[mm]	200	
Maximum spacing s_{max}	[mm]	600	
Minimum edge distance c_{min}	[mm]	150	

1) In absence of national regulations

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:



Mario Grazioli
Head of Quality Direct Fastening
Hilti AG, Schaan: 07.02.2023