



EN

DECLARATION OF PERFORMANCE

according to the construction products (Amendment etc.) (EU Exit) Regulation 2020

Hilti power-actuated fastener X-P 20 B3, X-P 24 B3, X-P 20 G3 and X-P 24 G3 to fasten Hilti electrical fixtures X-EKB MX, X-ECT MX, X-EKS MX, X-EKSC MX, X-ECH MX, X-ECC MX, X-EHS MX, X-FB MX and X-DFB MX
No. Hilti-DX-DoP-404

1. Unique identification code of the product-type:

Hilti power-actuated fastener X-P 20 B3 and X-P 24 B3 for use with Hilti fastening tool BX 3 and X-P 20 G3 and X-P 24 G3 for use with Hilti fastening tool GX 3 to fasten Hilti electrical fixtures X-EKB MX, X-ECT MX, X-EKS MX, X-EKSC MX, X-ECH MX, X-ECC MX, X-EHS MX, X-FB MX and X-DFB MX.

2. Type, batch or serial number or any other element allowing identification of the construction product: 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 for multiple use in concrete for non-structural applications (electrical fixtures)
Base material	Reinforced or unreinforced normal weight concrete according to BS-EN 206-1:2000. Strength classes C20/25 to C35/45 according to BS-EN 206-1:2000. Cracked and non-cracked concrete.
Environmental condition	Structures subject to dry indoor conditions.
Loading	Static and quasi-static loads.

4.1 Name, registered trade name or registered trade mark and contact address of the manufacturer: Hilti Aktiengesellschaft, Business Unit Direct Fastening, 9494 Schaan, Fürstentum Liechtenstein

4.2 Name of the UK importer:

Hilti (Gt. Britain) Limited, No. 1 Circle Square, 3 Symphony Park, Manchester, England, M1 7FS

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks:
n.a.

6. System or systems of assessment and verification of constancy of performance of the construction product:
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 UK Technical Assessment has been issued: BBA, British Board of Agreements issued UKTA-0836-22/6560 on the basis of UKAD 330083-02-0601. The notified body BBA performed third party tasks under system 2+ and issued the certificate of conformity of the factory production control UK 0836-CPR-F6993.

9. Declared performance:

Essential characteristics	Performance
Characteristic and design values of resistance and displacements in non-cracked and cracked concrete	Annex C1 – C4 of UKTA-0836-22/6560 (details see below)
Durability	Structures subject to dry conditions.
Reaction to fire of fasteners and fixtures made of metal	Class A1
Reaction to fire of Fixture made of polyamide	NPD
Resistance to fire	NPD





Reference to recommended load data from UKTA-0836-22/6560

Maximum service loads $F_{S,max}$

X-EKB 4 MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Flexible cables	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	9.0
Acceptable gap for local failure $\beta \geq 3.3$	1	6.2
	2	9.0

X-EKB 8 MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Flexible cables	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	14.0
Acceptable gap for local failure $\beta \geq 3.3$	2	12.5
	3	14.0

X-EKB 16 MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Flexible cables - symmetric loading	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	0	12.0
	1	18.0
Acceptable gap for local failure $\beta \geq 3.3$	1	18.0

X-EKB 16 MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Flexible cables - asymmetric loading	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	14.0
Acceptable gap for local failure $\beta \geq 3.3$	2	12.5
	3	14.0





Maximum service loads $F_{S,max}$ (continued)

X-ECT MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$		Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]
		Flexible cables or conduits
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	40
	2	55
Acceptable gap for local failure $\beta \geq 3.3$	3	40
	4	55

X-EKS MX with X-P 20 B3 MX or X-P 20 G3 MX nail			
Number of fixing points $n_1 = 100$		Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]	
		Flexible cables	Rigid cables or conduits
Acceptable gap for serviceability limit state $\beta \geq 1.5$	0	10.5	6.5
Acceptable gap for local failure $\beta \geq 3.3$	1	10.5	6.5

X-EKSC MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$		Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]
		Flexible cables
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	55
Acceptable gap for local failure $\beta \geq 3.3$	2	45
	3	55

X-EKSC MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$		Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]
		Rigid cables or conduits
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	32
Acceptable gap for local failure $\beta \geq 3.3$	2	32





Maximum service loads $F_{S,max}$ (continued)

X-ECH MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]	
	Flexible cables	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	40
	2	55
Acceptable gap for local failure $\beta \geq 3.3$	3	40
	4	55

X-ECC MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Flexible cables	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	35
	2	50
Acceptable gap for local failure $\beta \geq 3.3$	3	35
	4	50

X-ECC MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Rigid cables or conduits	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	15
	2	30
Acceptable gap for local failure $\beta \geq 3.3$	2	15
	4	30

X-EHS MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Flexible cables	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	60
	2	80
Acceptable gap for local failure $\beta \geq 3.3$	3	60
	4	80



Maximum service loads $F_{S,max}$ (continued)

X-EHS MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension service load $N_{S,max}$ [N]	
	Rigid cables or conduits	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	45
Acceptable gap for local failure $\beta \geq 3.3$	3	40
	4	45

X-FB MX and X-DFB MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]	
	Flexible cables	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	30
Acceptable gap for local failure $\beta \geq 3.3$	2	20
	3	30

X-FB MX and X-DFB MX with X-P 20 B3 MX or X-P 20 G3 MX nail		
Number of fixing points $n_1 = 100$	Maximum tension and shear service load $N_{S,max} = V_{S,max}$ [N]	
	Rigid cables or conduits	
Acceptable gap for serviceability limit state $\beta \geq 1.5$	1	20
Acceptable gap for local failure $\beta \geq 3.3$	2	20

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:



Klaus Bertsch

Head of Quality Direct Fastening

Hilti Aktiengesellschaft, Schaan: 01.09.2023