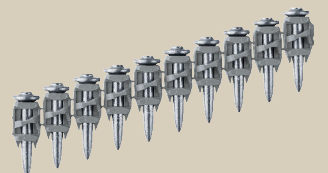




X-P B4 MX,
X-P B3 MX,
X-P B3 P7,
X-P G3 MX,
X-P G2 MX,
X-GHP MX
CONCRETE NAILS
(COLLATED)

Data Sheet

06.2024



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1 PRODUCT INFORMATION

1.1 Product description

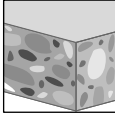
Designation	Features
X-P B4 MX	<ul style="list-style-type: none"> • Ultimate-performance nail for soft and some tough concrete • Long, conical tip and high hardness – for excellent fastening quality
X-P B3 MX	
X-P B3 P7	
X-P G3 MX	
X-P G2 MX	
X-GHP MX	

2 APPLICATION CONDITIONS

2.1 Application examples

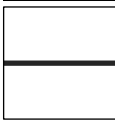
Wood to concrete	Steel to concrete	Fixed track fastening

2.2 Base materials



Concrete

2.3 Load conditions



Static / quasi-static

2.4 Environmental conditions



Dry indoor



• For more details, please refer to the [Hilti Corrosion Handbook](#)

3 APPROVALS AND CERTIFICATES

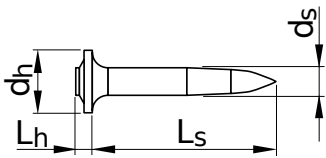
Authority	Approval / Certificate number	Date of issue
Deutsches Institut für Bautechnik (DIBt)	ETA-20/0886	Jul 7 2024



- Information presented in this product data sheet is based on Hilti Technical Data.
- Not all information presented in this product data sheet might be subject to approval/certificate content.
- Approvals and certificates valid for: X-P 17 B4 MX, X-P 17 B3 MX, X-P 20 B4 MX, X-P 20 B3 MX.
- Please refer to approval/certificate for further information.

4 PRODUCT DATA

4.1 Dimensions

Technical drawing	Fastener	Head length	Shank length	Shank diameter	Head diameter
		L_h [mm]	L_s [mm]	d_s [mm]	d_h [mm]
	X-GHP 16 MX	1.8	16	3	6.8
	X-P 17 B4 MX	1.8	17	3	6.8
	X-P 17 B3 MX	1.8	17	3	6.8
	X-P 17 G3 MX	1.8	17	3	6.8
	X-P 17 G2 MX	1.8	17	3	6.8
	X-GHP 18 MX	1.8	18	3	6.8
	X-P 20 B4 MX	1.8	20	3	6.8
	X-P 20 B3 MX	1.8	20	3	6.8
	X-P 20 G3 MX	1.8	20	3	6.8
	X-P 20 G2 MX	1.8	20	3	6.8
	X-GHP 20 MX	1.8	20	3	6.8
	X-P 24 B4 MX	1.8	24	3	6.8
	X-P 24 B3 MX	1.8	24	3	6.8
	X-GHP 24 MX	1.8	24	3	6.8
	X-P 30 B3 P7	1.8	30	3	6.8
	X-P 36 B3 P7	1.8	36	3	6.8

4.2 Material properties for carbon steel parts

Fastener	Component part	Material	Coating	Coating thickness	Hardness	Corrosivity category
				t_c [μm]	[HRC]	
X-P B4 MX	Nail	Carbon steel	Zinc coated	≥5	57.5	C1
X-P B3 MX	Nail	Carbon steel	Zinc coated	≥5	57.5	C1
X-P B3 P7	Nail	Carbon steel	Zinc coated	≥5	57.5	C1
X-P G3 MX	Nail	Carbon steel	Zinc coated	≥5	57.5	C1
X-P G2 MX	Nail	Carbon steel	Zinc coated	≥5	57.5	C1
X-GHP MX	Nail	Carbon steel	Zinc coated	≥2	57.5	C1

 • Corrosivity category according to ISO 9223

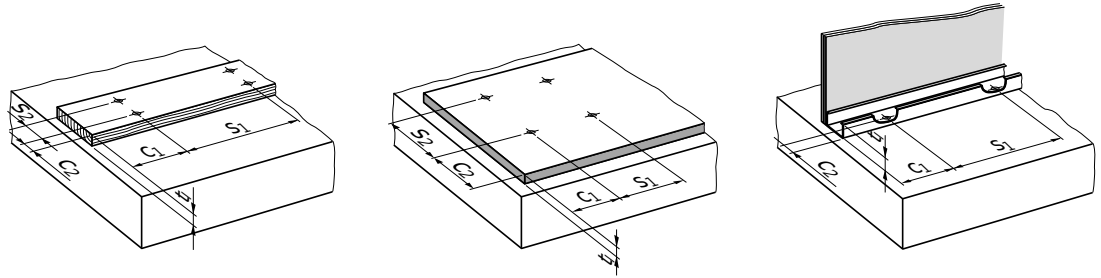
5 SYSTEM RECOMMENDATION

5.1 Tool recommendation

Fastening condition	Fastener	Tool type
Wood to concrete	X-GHP MX	GX 120-ME, GX 120
	X-P B3 MX	BX 3-ME, BX 3-IF, BX 3-ME (02), BX 3 (02), BX 3-L (02), BX 3-ME-22, BX 3-L-22, BX 3-22
	X-P B3 P7	BX 3-ME, BX 3-IF, BX 3-ME (02), BX 3 (02), BX 3-L (02), BX 3-ME-22, BX 3-L-22, BX 3-22
	X-P B4 MX	BX 4-22 (01)
	X-P G2 MX	GX 2
	X-P G3 MX	GX 3-ME, GX 3
Steel to concrete	X-GHP MX	GX 120-ME, GX 120
	X-P B3 MX	BX 3-ME, BX 3-IF, BX 3-ME (02), BX 3 (02), BX 3-L (02), BX 3-ME-22, BX 3-L-22, BX 3-22
	X-P B4 MX	BX 4-22 (01)
	X-P G2 MX	GX 2
	X-P G3 MX	GX 3-ME, GX 3
Fixed track fastening	X-GHP MX	GX 120-ME, GX 120
	X-P B3 MX	BX 3-ME, BX 3-IF, BX 3-ME (02), BX 3 (02), BX 3-L (02), BX 3-ME-22, BX 3-L-22, BX 3-22
	X-P B4 MX	BX 4-22 (01)
	X-P G2 MX	GX 2
	X-P G3 MX	GX 3-ME, GX 3

6 APPLICATION REQUIREMENTS

6.1 Fastened material properties



Wood to concrete

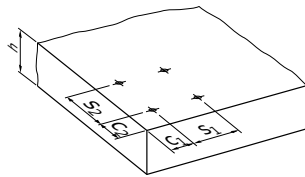
Steel to concrete

Fixed track fastening

Fastening condition	Fastened material	Fastened material thickness t_f [mm]	Edge distance	Edge distance	Fastener spacing distance s_1 [mm]	Fastener spacing distance s_2 [mm]
			c_1 [mm]	c_2 [mm]		
Wood to concrete	Wood	≤ 25	≥ 100	≥ 22	180 – 800	≥ 80
Steel to concrete	Steel	≤ 2	≥ 40		≥ 600	≥ 80
Fixed track fastening	Steel track	≤ 1	≥ 40		≤ 600	≥ 80

i • Spacing for partition walls with fire rating: 300 mm.

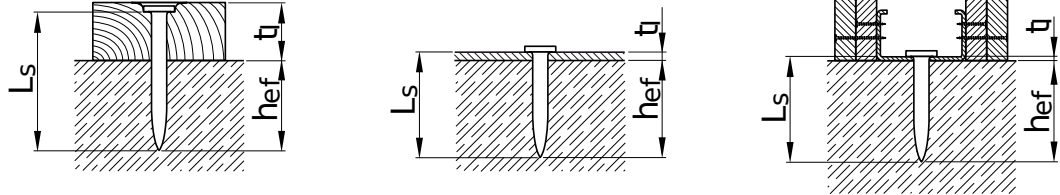
6.2 Base material properties



Fastening to concrete

Base material	Base material thickness	Edge distance	Edge distance	Fastener spacing distance s_1 [mm]	Fastener spacing distance s_2 [mm]
	h [mm]	c_1 [mm]	c_2 [mm]		
Concrete	≥ 60	≥ 70	≥ 70	≥ 100	≥ 80

6.3 Nail length recommendation



		Wood to concrete	Steel to concrete	Fixed track fastening
Fastening condition	Fastening characteristics	Shank Length		
		L_s [mm]		
		Embedment depth		
		h_{ef} [mm]		
		Fastened material thickness		
		t_f [mm]		
Wood to concrete	Standard fastening	$L_s \geq h_{ef} + t_f$	≥ 14	≤ 25
	Flush fastening	$L_s \geq h_{ef} + t_f - 3$	≥ 14	≤ 25
Steel to concrete	Standard fastening	$L_s \geq h_{ef} + t_f$	≥ 11	≤ 2
Fixed track fastening	Standard fastening	$L_s \geq h_{ef} + t_f$	≥ 11	≤ 1

7 PERFORMANCE DATA

7.1 Recommended loads under quasi static/static loading

Fastening condition	Base material type	Embedment depth	Tension load	Shear load
		h_{ef} [mm]	N_{rec} [kN]	V_{rec} [kN]
Wood to concrete	Soft concrete, Medium concrete, Tough concrete	14 - < 18	0.1	0.1
	Soft concrete, Medium concrete	≥ 18	0.2	0.2
Steel to concrete	Soft concrete, Medium concrete, Tough concrete	11 - < 14	0.1	0.38
	Soft concrete, Medium concrete, Tough concrete	14 - < 18	0.1	0.38
	Soft concrete, Medium concrete	≥ 18	0.2	0.38
Fixed track fastening	Soft concrete, Medium concrete, Tough concrete	11 - < 14	0.1	0.38
	Soft concrete, Medium concrete, Tough concrete	14 - < 18	0.1	0.38
	Soft concrete, Medium concrete	≥ 18	0.3	0.38



- Redundancy of fastening points is required.
- Minimum number of fastening points for safety relevant fastenings: ≥ 5 .

7.2 Stick rate estimation

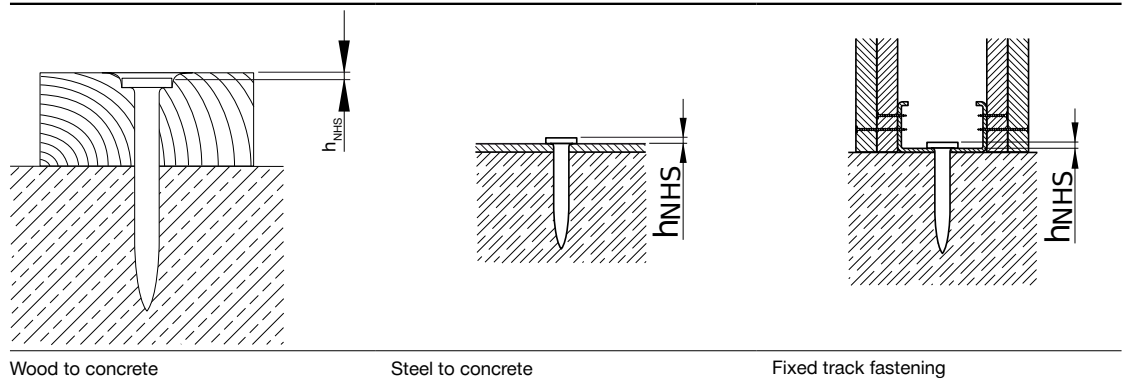
Technical drawing	Fastening condition	Base material	Stick rate estimation [%]
	Wood to concrete	Soft concrete	85-98
		Medium concrete	
		Tough concrete	
	Steel to concrete	Soft concrete	85-98
		Medium concrete	
		Tough concrete	
	Fixed track fastening	Soft concrete	85-98
		Medium concrete	
		Tough concrete	



- The stick rate indicates the percentage of nails that were driven correctly to carry a load.
- Stick rate can vary from the above values depending on job site conditions.

8 QUALITY ASSURANCE

8.1 Fastening inspection



Fastening condition	Fastener	Fastener standoff h_{NHS} [mm]
Wood to concrete	X-GHP MX, X-P B3 MX, X-P B3 P7, X-P B4 MX, X-P G2 MX, X-P G3 MX	≤ 3
Steel to concrete	X-GHP MX, X-P B3 MX, X-P B4 MX, X-P G2 MX, X-P G3 MX	2-5
Fixed track fastening	X-GHP MX, X-P B3 MX, X-P B4 MX, X-P G2 MX, X-P G3 MX	2-5



- Visible setting failures must be replaced with a new fastener, not in the same hole.
- These are abbreviated instructions which may vary by application.
- Always review/follow the instructions accompanying the product.

9 ORDERING INFORMATION

9.1 Item number and description

Designation	Item number	Description
X-GHP 16 MX	2064010	
X-GHP 18 MX	2064011, 2330360, 340228	X-GHP MX Concrete nails (collated)
X-GHP 20 MX	2024941, 2064012, 2330361, 285724	
X-GHP 24 MX	2064013	
X-P 17 B3 MX	2105403, 2156216, 2156219, 2314520, 2314521, 2348330, 2348333	X-P B3 MX Concrete nails (collated)
X-P 20 B3 MX	2105404, 2156217, 2156390, 2314522, 2314523, 2348331, 2348334	
X-P 24 B3 MX	2156218, 2156391, 2298507, 2298508, 2348332, 2348335	
X-P 30 B3 P7	2105406	X-P B3 P7 Concrete nails
X-P 36 B3 P7	2105407	
X-P 17 B4 MX	2361537, 2361651, 2361655, 2412761, 2412762, 2412763	X-P B4 MX Concrete nails (collated)
X-P 20 B4 MX	2361538, 2361652, 2361656, 2412764, 2412765, 2412766	
X-P 24 B4 MX	2361539, 2361653, 2361657, 2412767, 2412768, 2412769	
X-P 17 G2 MX	2102018, 2273704	X-P G2 MX Concrete nails (collated)
X-P 20 G2 MX	2136797	
X-P 17 G3 MX	2101046, 2111280, 2330347	X-P G3 MX Concrete nails (collated)
X-P 20 G3 MX	2101047, 2111281, 2330346	



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