



# X-SCR DATA SHEET


Suspended ceiling fastener



# X-SCR Ceiling fastener

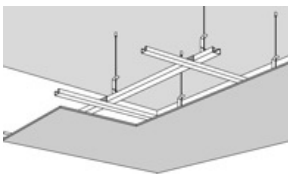
## Product info

### Product description

Designation	Features
<p>X-SCR</p> 	<ul style="list-style-type: none"> <li>• Higher productivity – up to 20 % project time savings frees up time to take on more projects, ultimately increasing your bottom line.</li> <li>• More comfortable jobsites – less noise, dust and vibration when compared with drilling, helping to fulfill health and safety requirements on jobsites.</li> <li>• Peace of mind – European Technical Assessment (ETA) approved system for suspended ceilings.</li> <li>• Easier to install – quickly install a suspended ceiling hanger in seconds with Hilti direct fastening tools.</li> <li>• Added convenience as hangers can be fitted before the fastener is driven.</li> <li>• One clip suitable for threaded rod hangers.</li> </ul>

## Application conditions

### Applications

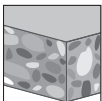


Suspended ceiling



Suspended ceiling  
Hanger type: Threaded rod

### Base materials



Concrete

### Load conditions



Static/  
quasi static

### Environmental conditions



Dry indoor

## Approvals

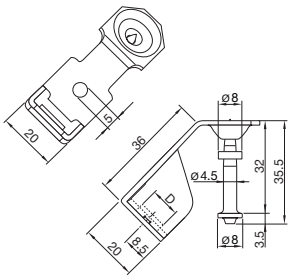
### Approvals and certificates

Authority	Approval/certificate	Date of issue
Deutsches Institut für Bautechnik (DIBt)	ETA-22/0587	24/07/2023
Document Technique d'Application (DTA)	3.1/24-1087_V1	18/09/2024

- Not all information presented in this product data sheet might be subject to approval/certificate content. Please refer to approval/certificate for further information.

## Product data

### Dimensions



X-SCR ALH32 P8

### Material specification and material properties

Designation	Element	Material	Standard
X-SCR M6 ALH32	Ceiling fastener	S280GD+ Z140-N-A-C	EN 10346
X-SCR M8 ALH32	Ceiling fastener	S280GD+ Z140-N-A-C	EN 10346

Designation	Element	Material	Coating	Minimum coating thickness $t_c$ [ $\mu\text{m}$ ]	Hardness [HRC]
X-SCR ALH32	Nail	Carbon steel	Zinc	5	58

Element	Material	Diameter [mm]
Plastic washer	Propylene	8

### Application requirements

#### Base material properties and fastener positioning in base material

	Base material	Concrete
	Concrete class	C20/25 - C40/50
	Base material thickness $h_{\min}$ [mm]	80
	Edge distance $c_{1,\min}$ , $c_{2,\min}$ [mm]	150
	Spacing $s_{1,\min}$ , $s_{2,\min}$ [mm]	200

### Performance data

#### Single point loads

Designation	Hanger type	Characteristic resistance under tension load	Recommended tension load
		$N_{Rk}$ [kN]	$N_{rec}$ [kN]
X-SCR M6 ALH32	Threaded rod: M6	0.34	0.15
X-SCR M8 ALH32	Threaded rod: M8	0.34	0.15

#### System loads

Maximum allowable ceiling weight [kN/m<sup>2</sup>]

Carrying channel/ spacing a [mm]	Hanger spacing b [mm]								
	500	600	700	800	900	1000	1100	1200	
500	0.60	0.50	0.42	0.37	0.33	0.30	0.27	0.25	
600	0.50	0.41	0.35	0.31	0.27	0.25	0.22	0.20	
700	0.42	0.35	0.30	0.26	0.23	0.21	0.19	0.17	
800	0.37	0.31	0.26	0.23	0.20	0.18	0.17	0.15	
900	0.33	0.27	0.23	0.20	0.18	0.16	0.15	0.13	
1000	0.30	0.25	0.21	0.18	0.16	0.15	0.13	0.12	
1100	0.27	0.22	0.19	0.17	0.15	0.13	0.12	0.11	
1200	0.25	0.20	0.17	0.15	0.13	0.12	0.11	0.10	



- Allowable ceiling weights are calculated based on the single point recommended tension load of 0.15 kN.
- The eccentric load introduction into the fastener is already considered in these load values.
- Fastening of redundant non-structural components (details see ETA-22/0587).

### Stick rate estimation

	Designation	Soft/standard concrete	Tough concrete
	X-SCR M6 ALH32	> 95 %	90–95 %
	X-SCR M8 ALH32		



- 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.

### System recommendation

#### System recommendation for fastening collated nails with powder-actuated tools

Designation	Powder-actuated tool		
	DX 6 F8	DX 5 F8	DX 460 F8
Optional with pole tool	X-6-PT	X-PT 5	X-PT 460
X-SCR M6 ALH32	■	■	■
X-SCR M8 ALH32	■	■	■

■ = recommended   □ = feasible

### Cartridge recommendation

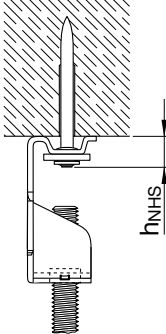
Base material	Cartridge color (tool power level)	
	Tool type: DX 6 F8	Tool type: DX 5 F8, DX 460 F8
	Cartridge type: 6.8/11 M10 for DX 6	Cartridge type: 6.8/11 M10
Soft/standard concrete	titanium ■ (4-7)	yellow ■, red ■
Tough concrete	titanium ■ (6-8), black ■ (7-8)	red ■, black ■




- Tool power level adjustment by setting tests on site (see chapter quality assurance).
- For more details, please refer to the chapter Accessories and consumables compatibility in the Direct Fastening Technology Manual (DFTM).

**Quality assurance**

**Fastening inspection**

Hanger type	Designation	Fastener stand-off $h_{NHS}$ [mm]
 <p>Threaded rod</p>	X-SCR M6 ALH32 X-SCR M8 ALH32	6-10

-  • 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.

**Fastener program**

**Item no. and description**

Designation	Item no	Description
X-SCR M6 ALH32	2375248	Ceiling fastener
X-SCR M8 ALH32	2379191	