

VYHLÁSENIE O PARAMETROCH

DoP 0374
pre fischer Ceiling Anchor FDN II (mechanická kotva do betónu)
SK

1. Jedinečný identifikačný kód typu výrobku:

DoP 0374
2. Zamýšľané použitie/použitia:

Dodatočné, viacnásobné upevnenie v betóne pre nenosné konštrukcie, pozri prílohu, najmä prílohy B1 - B3.
3. Výrobca:

fischerwerke GmbH & Co. KG, Klaus-Fischer-Str. 1, 72178 Waldachtal, Nemecko
4. Splnomocnený zástupca:

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5. Systém(-y) posudzovania a overovania nemennosti parametrov:

2+
6. Európsky hodnotiaci dokument:

EAD 330747-00-0601, Edition 06/2018

Európske technické posúdenie:

ETA-17/0736; 2025-04-10

Orgán technického posudzovania:

DIBt- Deutsches Institut für Bautechnik

Notifikovaný(-é) subjekt(-y):

2873 TU Darmstadt
7. Deklarované parametre:

Bezpečnosť pri používaní (BWR 4)

Charakteristická odolnosť v ťahu (statické a kvázistatické zaťaženie):

Odolnosť voči porušeniu ocele: NPD

Odolnosť voči porušeniu vytiahnutím: NPD

Odolnosť voči porušeniu betónového kužela: NPD

Robustnosť: Príloha C1

Minimálna vzdialenosť od okraj a osová vzdialenosť: Prílohy B2, C1

Vzdialenosť od okraja voči rozštiepiu pri zaťažení: NPD

Charakteristická odolnosť v šmyku (statické a kvázistatické zaťaženie):

Odolnosť voči porušeniu ocele: (Zaťaženie šmykom): Príloha C1

Odolnosť voči vylomeniu: NPD

Odolnosť voči poškodeniu hrany betónu: NPD

Charakteristická únosnosť pre všetky smery zaťaženia a spôsoby porušenia pre zjednodušený návrh:

Charakteristická únosnosť: Príloha C1

životnosť:

životnosť: Príloha A1

Bezpečnosť v prípade požiaru (BWR 2)

Reakcia na oheň:Trieda (A1)

Odolnosť proti ohňu:

Požiarna odolnosť voči porušeniu ocele (Zaťaženie ťahom): Príloha C1

Požiarna odolnosť voči vytiahnutiu (Zaťaženie ťahom): Príloha C1

Požiarna odolnosť voči porušeniu ocele (Zaťaženie šmykom): Príloha C1

8. Vhodná technická dokumentácia a/alebo špecifická technická dokumentácia:

–

Uvedené parametre výrobku sú v zhode so súborom deklarovanych parametrov. Toto vyhlásenie o parametroch sa v súlade s nariadením (EÚ) č. 305/2011 vydáva na výhradnú zodpovednosť uvedeného výrobcu.

Podpísal(-a) za a v mene výrobcu:



Dr. Ronald Mihala, Vedúci oddelenia vývoja a riadenia výroby
Tumlingen, 2025-05-19



Dieter Pfaff, Vedúci Medzinárodnej produkčnej federácie a riadenia kvality

Toto vyhlásenie o vlastnostiach bolo vyhotovené v rôznych jazykoch. V prípade, že dôjde k rozdielnemu výkladu má anglická verzia vždy prednosť.
Príloha obsahuje dobrovoľné a doplňujúce informácie v anglickom jazyku. Tieto vychádzajú zo zákonom stanovených požiadaviek (jazykovo neutrálnych) .

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Translation guidance Essential Characteristics and Performance Parameters for Annexes

Základné charakteristiky a parametre výkonu – pokyny na preklad pre prílohy

Safety in case of fire (BWR 2)		
Bezpečnosť v prípade požiaru (BWR 2)		
1	Reaction to fire: Reakcia na oheň:	Class Trieda (A1)
Resistance to fire: Odolnosť proti ohňu:		
2	Fire resistance to steel failure (tension load): Požiarna odolnosť voči porušeniu ocele (Zaťaženie ťahom):	$N_{RK,s,fi}$ [kN]
3	Fire resistance to pull-out failure (tension load): Požiarna odolnosť voči vytiahnutiu (Zťaženie tahom):	$N_{RK,p,fi}$ [kN]
4	Fire resistance to steel failure (shear load): Požiarna odolnosť voči porušeniu ocele (Zaťaženie šmykom):	$V_{RK,s,fi}$ [kN], $M^0_{RK,s,fi}$ [Nm]
Safety and accessibility in use (BWR 4)		
Bezpečnosť pri používaní (BWR 4)		
Characteristic resistance to tension load (static and quasi-static loading): Charakteristická odolnosť v ťahu (statické a kvázistatické zaťaženie):		
6	Resistance to steel failure: Odolnosť voči porušeniu ocele:	$N_{RK,s}$ [kN], E_s [N/mm ²]
7	Resistance to pull- out failure: Odolnosť voči porušeniu vytiahnutím:	$N_{RK,p}$ [kN], ψ_c , $T_{RK,p}$ [N/mm ²]
8	Resistance to concrete cone failure: Odolnosť voči porušeniu betónového kužeľa:	$k_{cr,N}$, $k_{ucr,N}$ [-], h_{ef} , $c_{cr,N}$ [mm]
9	Robustness: Robustnosť:	γ_{inst} [-]
10	Minimum edge distance and spacing: Minimálna vzdialenosť od okraj a osová vzdialenosť:	c_{min} , s_{min} , h_{min} [mm]
11	Edge distance to prevent splitting under load: Vzdialenosť od okraja voči rozštiepniu pri zaťažení:	$N^0_{RK,sp}$ [kN], $c_{cr,sp}$ [mm]
Characteristic resistance to shear load (static and quasi-static loading): Charakteristická odolnosť v šmyku (statické a kvázistatické zaťaženie):		
12	Resistance to steel failure (shear load): Odolnosť voči porušeniu ocele: (Zaťaženie šmykom):	$V_{RK,s}$ [kN], $M^0_{RK,s}$ [Nm], k_7 [-]
13	Resistance to pry-out failure: Odolnosť voči vylomeniu:	k_8 [-]
14	Resistance to concrete edge failure: Odolnosť voči poškodeniu hrany betónu:	d_{nom} , l_f [mm]
Characteristic resistance for all load directions and modes of failure for simplified design: Charakteristická únosnosť pre všetky smery zaťaženia a spôsoby porušenia pre zjednodušený návrh:		
15	Characteristic resistance: Charakteristická únosnosť:	F^0_{RK} [kN], s_{cr} , c_{cr} [mm]
Durability: životnosť:		
16	Durability: životnosť:	Description

Specific Part

1 Technical description of the product

The fischer Ceiling Anchor FDN II is an anchor made of galvanized steel which is placed into a drilled hole and anchored by deformation-controlled expansion.

Product and product description is given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the anchor of at least 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1
Resistance to fire	See Annex C 1

3.2 Safety in use (BWR 4)

Essential characteristic	Performance
Characteristic resistance for all load directions and modes of failure for simplified design	See Annex C 1
Durability	See Annex B 1

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with European Assessment Document EAD No. 330747-00-0601, the applicable European legal act is: [97/161/EC].

The system to be applied is: 2+

Product installation conditions, product marking and product dimensions

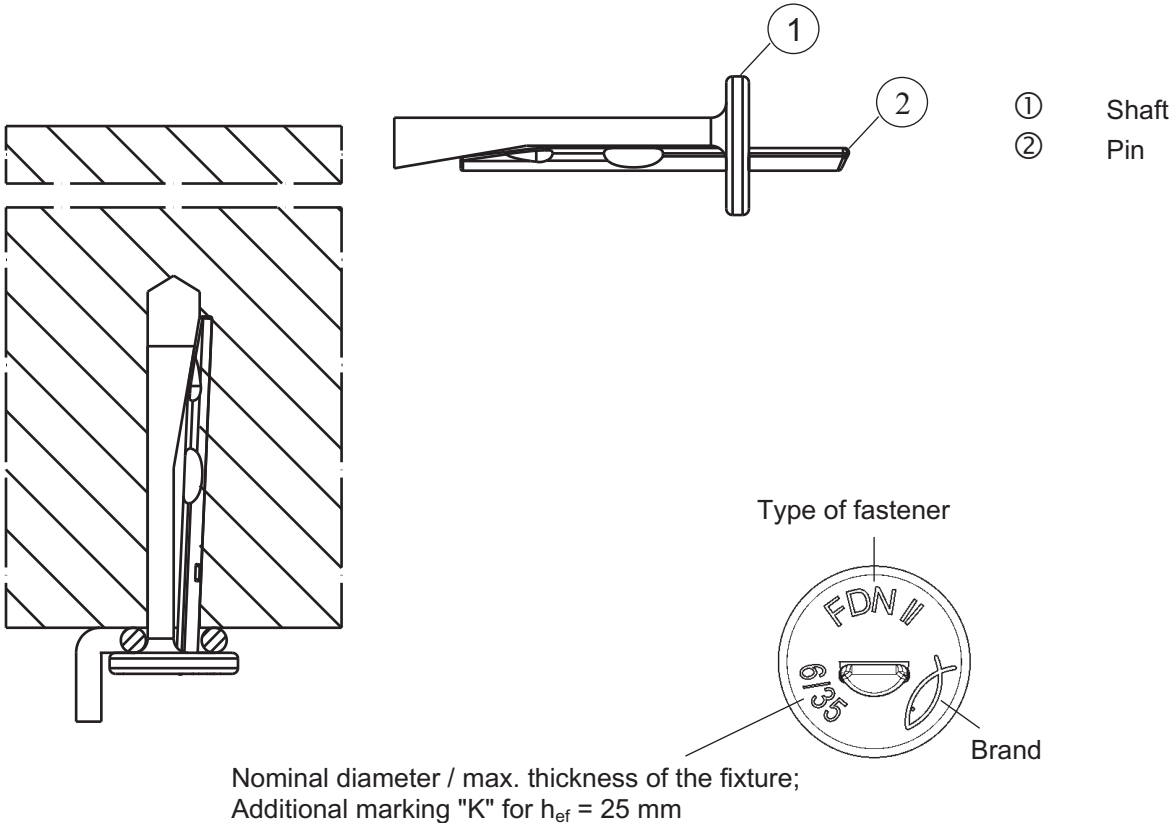
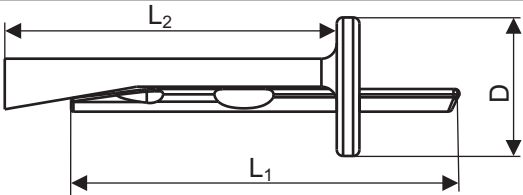


Tabelle A1.1: Materials

Part	Description	Material
1	Shaft	Steel, galvanised $\geq 5\mu\text{m}$ according to EN ISO 4042:2022
2	Pin	Steel, galvanised $\geq 5\mu\text{m}$ according to EN ISO 4042:2022

Table A1.2: Dimensions

Size		FDN II			
		6/5 K	6/5	6/35 K	6/35
Length of the	pin L_1	36	43	66	73
	shaft L_2 [mm]	30,5	37,5	60,5	67,5
Diameter of the head $D \geq$		13			



(Figures not to scale)

fischer Ceiling Anchor FDN II

Product description

Product installation conditions, product marking and product dimensions

Annex A 1

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Specifications of intended use

Anchorage subject to:

Size	FDN II 6 ✓
Static and quasi-static loads	
Only for redundant non-structural systems according to EN 1992-4:2018	
Fire exposure	

Base materials:

- Compacted reinforced and unreinforced normal weight concrete without fibres according to EN 206:2013+A2:2021.
- Strength classes C12/15 to C50/60 according to EN 206:2013+A2:2021.
- Cracked and uncracked concrete.

Use conditions (Environmental conditions):

- Anchorages subject to dry internal conditions.

Design:

- Anchorages are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings have to be prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings (e.g. position of the anchor relative to reinforcement or to supports, etc.).
- Anchorages under static and quasi-static loading are designed in accordance with EN 1992-4:2018, Design Method C or Technical Report CEN/TR 17079.
- In case of requirements to resistance to fire local spalling of the concrete cover must be avoided.

Installation:

- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Use of the fastener only as supplied by the manufacturer without exchanging the components of the fastener.
- Anchor installation in accordance with the manufacturer's specifications and drawings and using the appropriate tools.
- Check of concrete being well compacted, e.g. without significant voids.
- Positioning of the drill holes without damaging the reinforcement.
- In case of aborted hole: new drilling at a minimum distance away of twice the depth of aborted hole or smaller distance if the aborted hole is filled with high strength mortar (e.g. FIS HB, FIS SB, FIS EM Plus, FIS V Plus) and if under shear or oblique tension load it is not on the direction of the load application.

fischer Ceiling Anchor FDN II

Intended use
Specifications

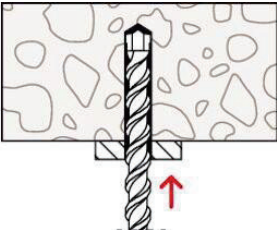
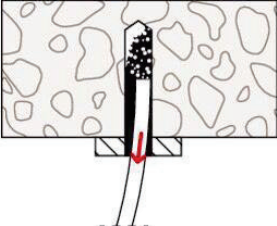
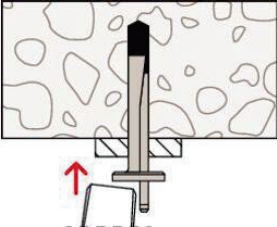
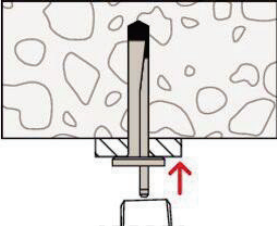
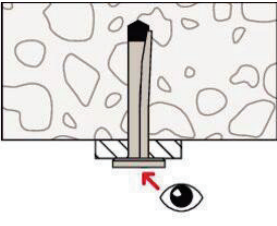
Annex B 1
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Table B2.1: Installation parameters							
Size			FDN II				
			6/5 K	6/5	6/35 K	6/35	
Thickness of the fixture	t_{fix}	$\leq$	5		35		
Nominal drill hole diameter	d_0		6				
Diameter of clearance hole in the fixture	d_f	$\leq$	7				
Maximum drill bit diameter	$d_{cut,max}$		6,40				
Effective embedment depth	h_{ef}	[mm]	25	32	25	32	
Depth of drill hole to with hole cleaning	h_1		30	37	30	37	
deepest point without hole cleaning			35	42	35	42	
Minimum thickness of concrete member	h_{min}		80				

(Figure not to scale)

fischer Ceiling Anchor FDN II			Annex B 2 Appendix 4 / 6		
Intended use Installation parameters					

Installation instructions

	1. Drill the hole: hammer or hollow drilling only.
	2. Clean the drill hole (only relates to hammer drilling).
	3. Cleaning of the drill hole not necessary, if the drill hole is 5 mm deeper (only relates to hammer drilling).
	4. Set the fastener: Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
	5. Set the pin, until flush to the surface: Positioning of the drill holes without damaging the reinforcement.
	6. Installed fastener: In case of aborted hole: New drilling at a minimum distance twice the depth of aborted hole away of or smaller distance if the aborted hole is filled with high strength mortar and if under shear or oblique tension load it is not in the direction of the load application.

(Figures not to scale)

fischer Ceiling Anchor FDN II

Intended use

Installation instructions

Annex B 3

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Table C1.1: Characteristic resistance for design method C

Size				FDN II 6	
For all load directions and for all failures modes					
Effective embedment depth		h_{ef}	[mm]	25	32
Characteristic resistance in cracked and un-cracked concrete	C12/15	F_{Rk}	[kN]	2,0	2,5
	C20/25 to C50/60			2,5	3,5
Characteristic	edge distance	$c_{cr,N} = c_{min}$	[mm]	70	60
	spacing	$s_{cr,N} = s_{min}$		60	50
Partial safety factor		$\gamma_M^{2)}$	[-]	1,5	
Shear load with lever arm					
Characteristic bending resistance		$M_{Rk,s}^0$	[Nm]	4,4	
Partial safety factor for steel failure		$\gamma_{Ms}^{1)}$	[-]	1,25	

¹⁾ In absence of other national regulations.

²⁾ The installation safety factor $\gamma_2 = \gamma_{inst} = 1,0$ is included.

Table C1.2: Characteristic resistance under fire exposure for all effective embedment depths

Size			FDN II 6	
For all load directions				
R30	Characteristic resistance	$F_{Rk,fi30}$	[kN]	1,00
R60		$F_{Rk,fi60}$		0,50
R90		$F_{Rk,fi90}$		0,34
R120		$F_{Rk,fi120}$		0,26
R180		$F_{Rk,fi180}$		0,17
Spacing and edge distance				
R30 – R180		$s_{cr,fi}$	[mm]	200
		$c_{cr,fi}$		150
Shear load with lever arm				
R30	Characteristic bending resistance	$M^0_{Rk,s,fi30}$	[Nm]	0,67
R60		$M^0_{Rk,s,fi60}$		0,33
R90		$M^0_{Rk,s,fi90}$		0,22
R120		$M^0_{Rk,s,fi120}$		0,16
R180		$M^0_{Rk,s,fi180}$		0,11

For fire exposure from one side c_{min} and s_{min} see Table C1.1.

For fire exposure from more than one side $c_{min} \geq 300$ mm.

fischer Ceiling Anchor FDN II**Performances**

Characteristic resistance and
characteristic resistance under fire exposure

Annex C 1

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