

DECLARAȚIA DE PERFORMANȚĂ

DoP 0375
pentru fischer Ceiling Anchor FDZ (Ancore din metal pentru utilizare în beton) RO

1. Cod unic de identificare al produsului-tip:

DoP 0375
2. Utilizare (utilizări) preconizată (preconizate):

Element de fixare post-instalat pentru utilizare în beton pentru sisteme nestructurale redundante, consultați suplimentul, în special anexele B1 - B3.
3. Fabricant:

fischerwerke GmbH & Co. KG, Klaus-Fischer-Str. 1, 72178 Waldachtal, Germany
4. Reprezentant autorizat:

–
5. Sistemul (sistemele) de evaluare și de verificare a constantei performanței:

2+
6. Documentul de evaluare european:
Evaluarea tehnică europeană:
Organismul de evaluare tehnică:
Organism (organisme) notificat(e):

EAD 330747-00-0601, Edition 06/2018
ETA-17/0737; 2025-04-10
DIBt- Deutsches Institut für Bautechnik
2873 TU Darmstadt
7. Performanța (performanțe) declarată (declare):

Siguranță în utilizare (BWR 4)

Rezistența caracteristică la întindere (pentru încărcări statice și cvasistatice):
Rezistența la cedarea oțelului: NPD
Rezistența la smulgere: NPD
Rezistența la cedarea conului de beton: NPD
Robustețe: Anexa C1
Distanța minimă față de margine și între ancore: Anexele B2, C1
Distanța față de margine pentru a preveni fisuri sub încărcare: NPD

Rezistența caracteristică la forfecare (pentru încărcări statice și cvasistatice):
Rezistența la cedarea oțelului (rezistența la forfecare): Anexa C1
Rezistența la cedarea cu braț de levier: NPD
Rezistența la cedarea muchiei betonului: NPD

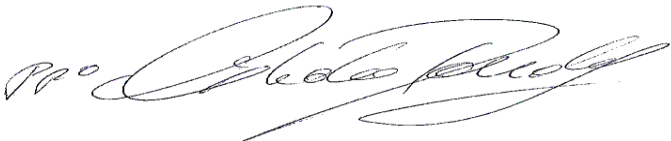
Rezistență caracteristică pentru toate direcțiile de încărcare și modurile de cedare pentru o proiectare simplificată:
Rezistență caracteristică: Anexa C1

Durabilitate:
Durabilitate: Anexa A1

Siguranța în caz de incendiu (BWR 2)
Reacție la foc:Clasa (A1)

Rezistența la incendiu:
Rezistența la foc în ipoteza cedării oțelului (rezistența la întindere): Anexa C1
Rezistența la foc în ipoteza cedării prin smulgere (rezistența la întindere): Anexa C1
Rezistența la foc în ipoteza cedării oțelului (rezistența la forfecare): Anexa C1

8. Documentație tehnică adecvată și/sau documentație tehnică specifică:

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- Performanța produsului identificat mai sus este în conformitate cu setul de performanțe declarate. Această declarație de performanță este eliberată în conformitate cu Regulamentul (UE) nr. 305/2011, pe răspunderea exclusivă a fabricantului identificat mai sus.
- Semnată pentru și în numele fabricantului de către:
- 
Dr. Ronald Mihala, Șef al departamentului de dezvoltare și management al producției
Tumlingen, 2025-05-19
- 
Dieter Pfaff, Șeful Federației Internaționale de Producție și Managementul Calității
- Această declarație de performanță a fost întocmită în mai multe limbi. În cazul unei divergențe de interpretare, versiunea în limba engleză prevalează întotdeauna.
- Suplimentul include informații voluntare și complementare în limba engleză, în afara cerințelor legale (specificate neutru din punct de vedere al limbii).
- Fischer DATA DOP_ECs_V103.xlsm
- 1 / 1

Translation guidance Essential Characteristics and Performance Parameters for Annexes

Ghid de traducere a caracteristicilor esențiale și a parametrilor de performanță pentru anexe

Safety in case of fire (BWR 2)		
Siguranța în caz de incendiu (BWR 2)		
1	Reaction to fire: Reacție la foc:	Class Clasa (A1)
Resistance to fire: Rezistența la incendiu:		
2	Fire resistance to steel failure (tension load): Rezistența la foc în ipoteza cedării oțelului (rezistența la întindere):	$N_{Rk,s,fi}$ [kN]
3	Fire resistance to pull-out failure (tension load): Rezistența la foc în ipoteza cedării prin smulgere (rezistența la întindere):	$N_{Rk,p,fi}$ [kN]
4	Fire resistance to steel failure (shear load): Rezistența la foc în ipoteza cedării oțelului (rezistența la forfecare):	$V_{Rk,s,fi}$ [kN], $M^0_{Rk,s,fi}$ [Nm]
Safety and accessibility in use (BWR 4)		
Siguranță în utilizare (BWR 4)		
Characteristic resistance to tension load (static and quasi-static loading): Rezistența caracteristică la întindere (pentru încărcări statice și cvasistatice):		
6	Resistance to steel failure: Rezistența la cedarea oțelului:	$N_{Rk,s}$ [kN], E_s [N/mm ²]
7	Resistance to pull- out failure: Rezistența la smulgere:	$N_{Rk,p}$ [kN], ψ_c , $T_{Rk,p}$ [N/mm ²]
8	Resistance to concrete cone failure: Rezistența la cedarea conului de beton:	$k_{cr,N}$, $k_{ucr,N}$ [-], h_{ef} , $c_{cr,N}$ [mm]
9	Robustness: Robustețe:	V_{inst} [-]
10	Minimum edge distance and spacing: Distanța minimă față de margine și între ancore:	c_{min} , s_{min} , h_{min} [mm]
11	Edge distance to prevent splitting under load: Distanța față de margine pentru a preveni fisuri sub încărcare:	$N^0_{Rk,sp}$ [kN], $c_{cr,sp}$ [mm]
Characteristic resistance to shear load (static and quasi-static loading): Rezistența caracteristică la forfecare (pentru încărcări statice și cvasistatice):		
12	Resistance to steel failure (shear load): Rezistența la cedarea oțelului (rezistența la forfecare):	$V_{Rk,s}$ [kN], $M^0_{Rk,s}$ [Nm], k_7 [-]
13	Resistance to pry-out failure: Rezistența la cedarea cu braț de levier:	k_8 [-]
14	Resistance to concrete edge failure: Rezistența la cedarea muchiei betonului:	d_{nom} , l_f [mm]
Characteristic resistance for all load directions and modes of failure for simplified design: Rezistență caracteristică pentru toate direcțiile de încărcare și modurile de cedare pentru o proiectare simplificată:		
15	Characteristic resistance: Rezistență caracteristică:	F^0_{Rk} [kN], s_{cr} , c_{cr} [mm]
Durability: Durabilitate:		
16	Durability: Durabilitate:	Description

Specific Part

1 Technical description of the product

The fischer Ceiling Anchor FDZ 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

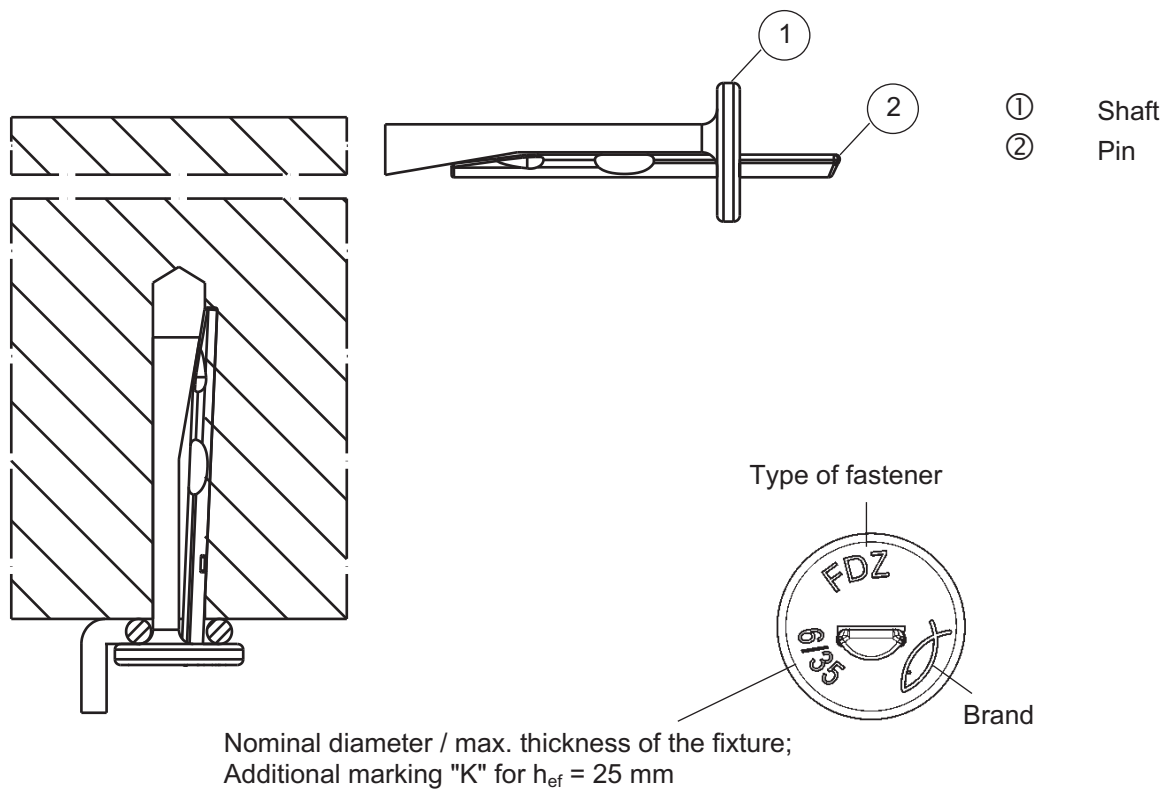
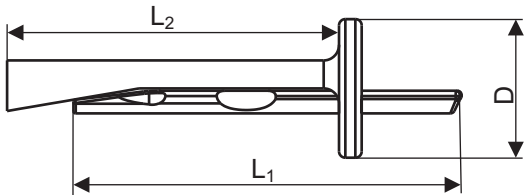


Tabelle A1.1: Materials

Part	Description	Material
1	Shaft	Steel, galvanised ≥ 5µm according to EN ISO 4042:2022
2	Pin	Steel, galvanised ≥ 5µm according to EN ISO 4042:2022

Table A1.2: Dimensions

			FDZ				
			6/5 K	6/5	6/35 K	6/35	
Length of the	pin	L ₁	[mm]	36	43	66	73
	shaft	L ₂		30,5	37,5	60,5	67,5
Diameter of the head			D ≥	13			



(Figures not to scale)

fischer Ceiling Anchor FDZ

Intended use

Product installation conditions, product marking and product dimensions

Annex A 1

Appendix 2 / 6

Specifications of intended use

Anchorage subject to:

Size	FDZ 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):

- Anchorage 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 FDZ

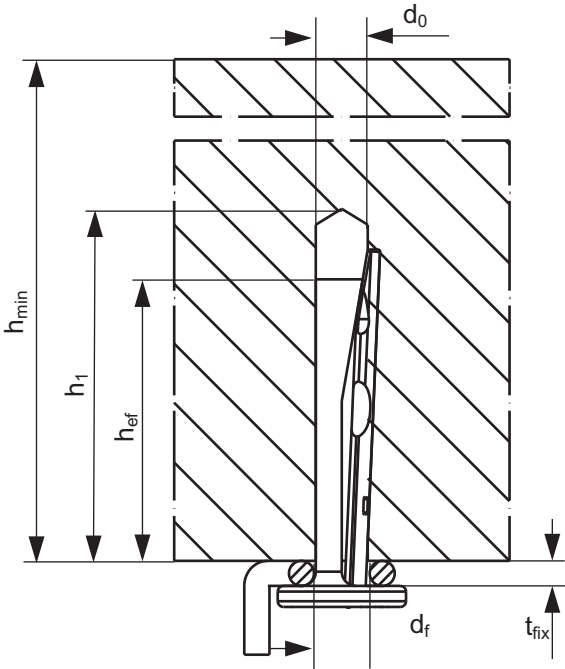
Intended use
Specifications

Annex B 1

Appendix 3 / 6

Table B2.1: Installation parameters

Size			FDZ			
			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	[mm]	6			
Diameter of clearance hole in the fixture	d_f		7			
Maximum drill bit diameter	$d_{cut,max}$		6,40			
Effective embedment depth	h_{ef}		25	32	25	32
Depth of drill hole to <u>with hole cleaning</u>	h_1		30	37	30	37
deepest point <u>without hole cleaning</u>			35	42	35	42
Minimum thickness of concrete member	h_{min}		80			

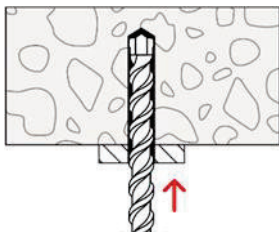


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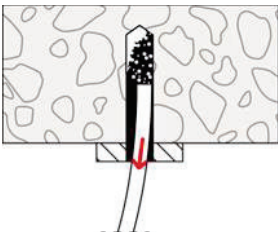
fischer Ceiling Anchor FDZ

Intended use
Installation parameters

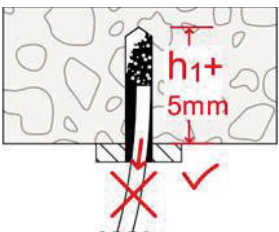
Installation instructions



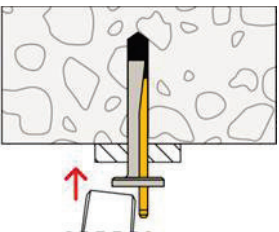
1. Drill the hole: hammer or hollow drilling only.



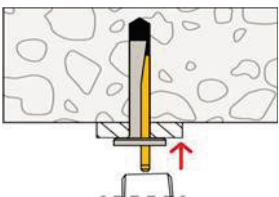
2. Clean the drill hole (only relates to hammer drilling).



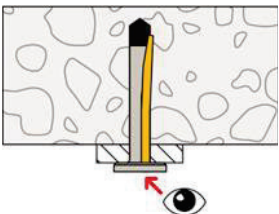
3. Cleaning of the drill hole not necessary, if the drill hole is 5 mm deeper (only relates to hammer drilling).



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 FDZ

Intended use

Installation instructions

Annex B 3

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Table C1.1: Characteristic resistance for design method C

Size			FDZ 6	
For all load directions and for all failures modes				
Effective embedment depth		h_{ef} [mm]	25	32
Characteristic resistance in cracked and uncracked concrete	C12/15	F_{Rk} [kN]	1,0	1,5
	C20/25 to C50/60		1,5	2,0
Characteristic	edge distance	$c_{cr,N} = c_{min}$	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		$M^0_{Rk,s}$ [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			FDZ 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 FDZ**Performances**

Characteristic resistance and
characteristic resistance under fire exposure

Annex C 1

Appendix 6 / 6