

DECLARACIÓN DE PRESTACIONES

DoP 0375

para el fischer Ceiling Anchor FDZ (anclaje mecánico para uso en hormigón)

ES

1. Código de identificación única del producto tipo:

DoP 0375
2. Usos previstos:

Fijación a posteriori en hormigón para sistemas no portantes redundantes, véase el apéndice, especialmente los anexos B1 - B3.
3. Fabricante:

fischerwerke GmbH & Co. KG, Klaus-Fischer-Str. 1, 72178 Waldachtal, Alemania
4. Representante autorizado:

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5. Sistemas de evaluación y verificación de la constancia de las prestaciones (EVCP):

2+
6. Documento de evaluación europeo:

EAD 330747-00-0601, Edition 06/2018
- Evaluación técnica europea:

ETA-17/0737; 2025-04-10
- Organismo de evaluación técnica:

DIBt- Deutsches Institut für Bautechnik
- Organismos notificados:

2873 TU Darmstadt
7. Prestaciones declaradas:

Seguridad en uso (BWR 4)

Resistencia característica a tracción (carga estática y cuasi-estática):

Resistencia de rotura del acero: NPD

E_s= 210 000 MPa

Résistance à la rupture par extraction glissement: NPD

Resistencia de rotura por cono de hormigón: NPD

Robustez Anexo C1

Distancia mínima entre el borde y el centro: Anexos B2, C1

Distancia al borde para evitar la rotura del acero sometido a carga: NPD

Resistencia característica a cortante (carga estática y cuasi-estática):

Resistencia de rotura del acero (esfuerzo cortante): Anexo C1

V_{Rk,s}=NPD; k₇=NPD

Resistencia falla por arrancamiento lateral: NPD

Resistencia de rotura del hormigón al borde: NPD

Resistencia característica para todas las direcciones de carga y modos de falla para un diseño simplificado:

Resistencia característica: Anexo C1
8. Documentación técnica adecuada o documentación técnica específica:

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Las prestaciones del producto identificado anteriormente son conformes con el conjunto de prestaciones declaradas. La presente declaración de prestaciones se emite, de conformidad con el Reglamento (UE) no 305/2011, bajo la sola responsabilidad del fabricante arriba identificado.

Firmado por y en nombre del fabricante por:



Dr. Ronald Mihala, Jefe de Desarrollo y Gestión de la Producción
Tumlingen, 2025-05-19



Dieter Pfaff, Jefe de la Federación Internacional de Producción y Gestión de Calidad

Esta DdR se ha preparado en distintos idiomas. En caso de que haya alguna controversia sobre la interpretación prevalecerá siempre la versión inglesa.

El Apéndice incluye información voluntaria y complementaria en idioma inglés que excede los requisitos legales (de idioma neutral).

Translation guidance Essential Characteristics and Performance Parameters for Annexes

Glosario de parámetros esenciales, característicos y de prestaciones para los anexos

Safety in case of fire (BWR 2)		
Seguridad en caso de incendio (BWR 2)		
1	Reaction to fire: Reacción al fuego:	Class Clase (A1)
Resistance to fire: Resistencia al fuego:		
2	Fire resistance to steel failure (tension load): Resistencia al fuego, rotura del acero (carga de tracción):	$N_{Rk,s,fi}$ [kN]
3	Fire resistance to pull-out failure (tension load): Resistencia al fuego, a la extracción (carga de tracción):	$N_{Rk,p,fi}$ [kN]
4	Fire resistance to steel failure (shear load): Resistencia al fuego, rotura del acero (esfuerzo cortante):	$V_{Rk,s,fi}$ [kN], $M^0_{Rk,s,fi}$ [Nm]
Safety and accessibility in use (BWR 4)		
Seguridad en uso (BWR 4)		
Characteristic resistance to tension load (static and quasi-static loading): Resistencia característica a tracción (carga estática y cuasi-estática):		
6	Resistance to steel failure: Resistencia de rotura del acero:	$N_{Rk,s}$ [kN], E_s [N/mm ²]
7	Resistance to pull- out failure: Résistance à la rupture par extraction glissement:	$N_{Rk,p}$ [kN], ψ_c , $t_{Rk,p}$ [N/mm ²]
8	Resistance to concrete cone failure: Resistencia de rotura por cono de hormigón:	$k_{cr,N}$, $k_{ucr,N}$ [-], h_{ef} , $c_{cr,N}$ [mm]
9	Robustness: Robustez	γ_{inst} [-]
10	Minimum edge distance and spacing: Distancia mínima entre el borde y el centro:	c_{min} , s_{min} , h_{min} [mm]
11	Edge distance to prevent splitting under load: Distancia al borde para evitar la rotura del acero sometido a carga:	$N^0_{Rk,sp}$ [kN], $c_{cr,sp}$ [mm]
Characteristic resistance to shear load (static and quasi-static loading): Resistencia característica a cortante (carga estática y cuasi-estática):		
12	Resistance to steel failure (shear load): Resistencia de rotura del acero (esfuerzo cortante):	$V_{Rk,s}$ [kN], $M^0_{Rk,s}$ [Nm], k_7 [-]
13	Resistance to pry-out failure: Resistencia falla por arrancamiento lateral:	k_8 [-]
14	Resistance to concrete edge failure: Resistencia de rotura del hormigón al borde:	d_{nom} , l_f [mm]
Characteristic resistance for all load directions and modes of failure for simplified design: Resistencia característica para todas las direcciones de carga y modos de falla para un diseño simplificado:		
15	Characteristic resistance: Resistencia característica:	F^0_{Rk} [kN], s_{cr} , c_{cr} [mm]
Durability: Durabilidad:		
16	Durability: Durabilidad:	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

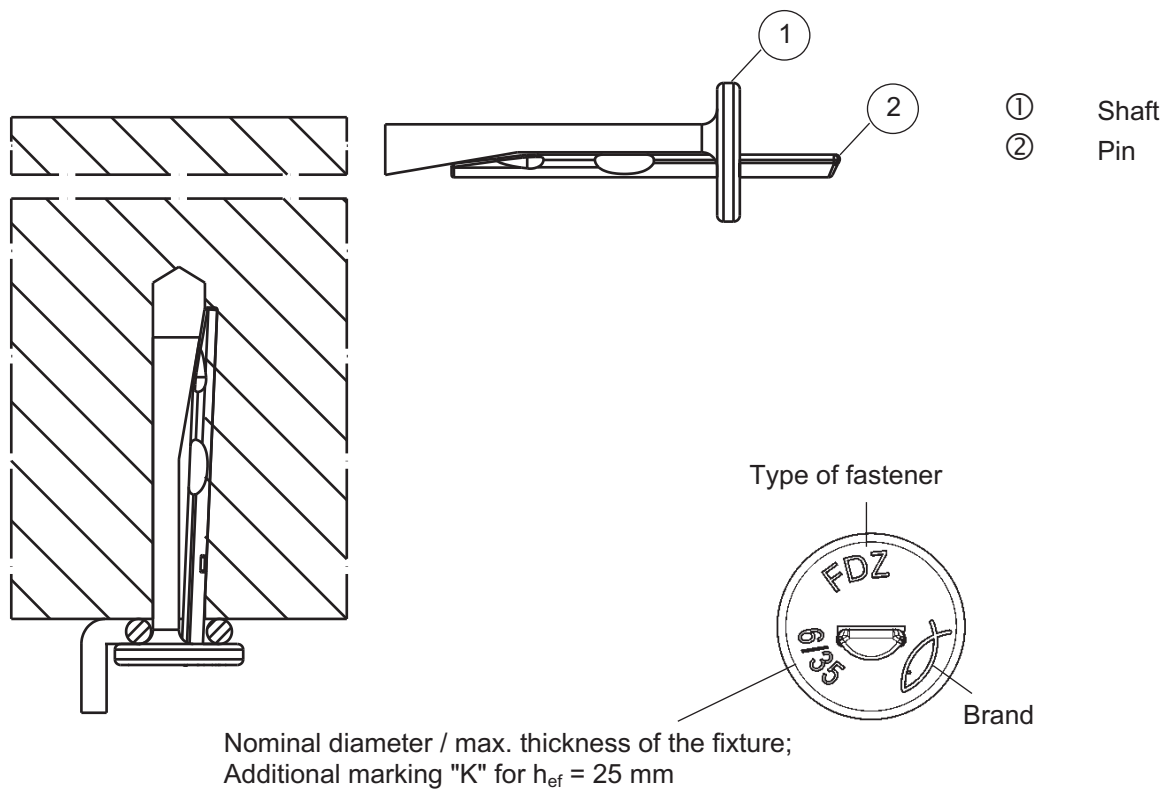
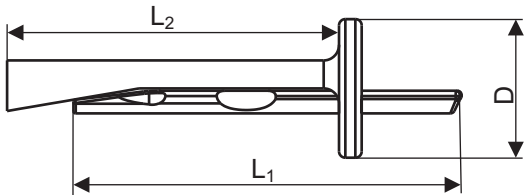


Tabelle A1.1: Materials

Part	Description	Material
1	Shaft	Steel, galvanised $\geq 5\mu\text{m}$ 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

			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

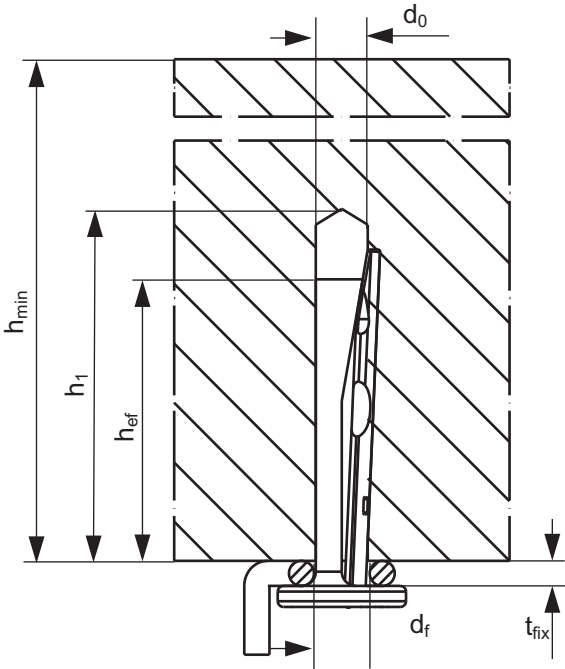
Intended use
Specifications

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	$d_{\text{cut,max}}$		6,40			
Effective embedment depth	h_{ef}		25	32	25	32
Depth of drill hole to with hole cleaning without hole cleaning deepest point	h_1		30	37	30	37
		35	42	35	42	
Minimum thickness of concrete member	h_{min}		80			

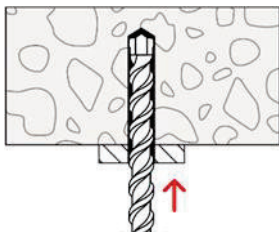


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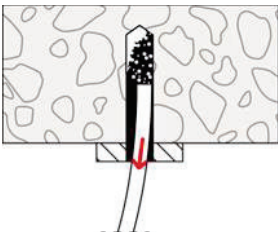
fischer Ceiling Anchor FDZ

Intended use
Installation parameters

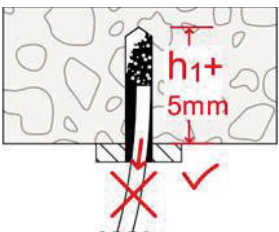
Installation instructions



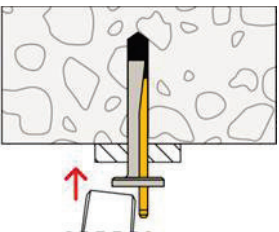
1. Drill the hole: hammer or hollow drilling only.



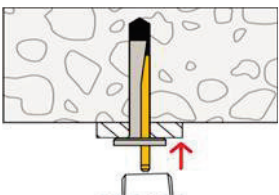
2. Clean the drill hole (only relates to hammer drilling).



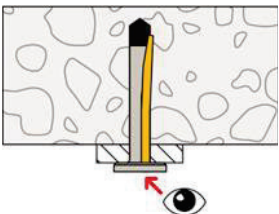
3. Cleaning of the drill hole not necessary, if the drill hole is 5 mm deeper (only relates to hammer drilling).



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

Appendix 5 / 6

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