BUILDING TRUST

Sika AnchorFix®-3001

DICHIARAZIONE DI PRESTAZIONE
No. 51057369

1	**CODICE DI IDENTIFICAZIONE UNICO DEL PRODOTTO-TIPO:**	51057369
2	**USI PREVISTI**	ETA 14/0368 del 14/10/2014 Resina per fissaggio di ferri di ripresa post-installati
3	**FABBRICANTE:**	Sika Services AG Tüffenwies 16-22 8064 Zürich
4	**MANDATARIO:**	
5	**SISTEMI DI VVCP:**	System 1
6b	**DOCUMENTO DI VALUTAZIONE EUROPEA:**	ETAG 001-Parte 1 e Parte 5, edizione 2013
	Valutazione Tecnica europea:	ETA 14/0368 del 14/10/2014
	Organismodi valutazione tecnica:	TECHNICKY A ZKUSEBNI USTAV STAVEBNI PRAHA s.p.
	Organismi notificati:	1020

7 PRESTAZIONI DICHIARATE

Reaction to fire - Anchorages satisfy requirements for Class A1

Resistance to fire - No performance determined

Anchorages subject to:

- Static and quasi-static load.

Base materials

- Reinforced or unreinforced normal weight concrete according to EN 206-1:2000-12
- Strength classes C12/15 to C50/60 according to EN 206-1:2000-12.
- Maximum chloride concrete of 0,40% (CL 0.40) related to the cement content according to EN 206-1:2000-12.
- Non-carbonated concrete.
  Note: In case of a carbonated surface of the existing concrete structure the carbonated layer shall be removed in the area of the post installed rebar connection (with a diameter d_s + 60 mm) prior to the installation of the new rebar. The depth of concrete to be removed shall correspond to at least minimum concrete cover in accordance with EN 1992-1-1:2004.
  The foregoing may be neglected if building components are new and not carbonated.

Temperature range:

- -40°C to +80°C (max. short. term temperature +80°C and max. long term temperature +40°C)

Use conditions (Environmental conditions)

- The rebars may be installed in dry or wet concrete.

Design:

- The anchorages are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the forces to be transmitted.
- Design according to EN 1992-1-1:2004
- The position of the reinforcement in the existing structure shall be determined on the basis of the construction documentation and taken into account when designing.

Installation:

- Dry or wet concrete.
- It must not be installed in flooded holes.
- Hole drilling by hammer drill or compressed air drill mode.
- The installation of post-installed rebars shall be done only by suitable trained installer and under supervision on site. The conditions under which an installer may be considered as suitable trained and the conditions for supervision on site are up to the Member States in which the installation is done.
- Check the position of the existing rebars.

Table A1: Materials

Product form		**Bars and de-coiled rods**	
Class		B	C
Characteristic yield strength f_{yk} or $f_{0,2k}$ (MPa)		400 to 600	
Minimum value of $k = (f_t / f_y)_k$		≥ 1,08	≥ 1,15 < 1,35
Characteristic strain at maximum force ε_{uk} (%)		≥ 5,0	≥ 7,5
Bendability		Bend / Rebend test	
Maximum deviation from nominal mass (individual bar) (%)	Nominal bar size (mm) ≤ 8 > 8	± 6,0 ± 4,5	
Bond: Minimum relative rib area, $f_{R,min}$	Nominal bar size (mm) 8 to 12 > 12	0,040 0,056	

Table B1: Minimum concrete cover min c of the bonded-in rebar depending on drilling method

Drilling method	Without drilling aid
Hammer drilling	30mm + 0,06 $\ell_v \geq 2\ d_s$
Compressed air drilling	50 mm + 0,08 ℓ_v

Table B2: Minimum anchorage length[1)] and lap lengths for C20/25 and maximum installation length l_{max} for good bond conditions.

Rebar		$\ell_{b,min}$	$\ell_{0,min}$	ℓ_{max}
$Ød_s$ [mm]	$f_{y,k}$ [N/mm²]	[mm]	[mm]	[mm]
8	500	170	300	400
10	500	212	300	500
12	500	255	300	600
14	500	298	315	700
16	500	340	360	800
20	500	425	450	1000
25	500	532	563	1000
28	500	595	630	1000
32	500	681	720	1000
40	500	851	900	1000

1) According to EN 1992-1-1: $\ell_{b,min}$ (8.6) and $\ell_{0,min}$ (8.11) for good bond conditions and α_6 = 1,0 with maximum yield stress σ_{sd} = 435 N/mm² for rebar B500-B and γ_M = 1,15 and maximum installation length.

Table B3: Drilling diameter and maximum anchorage depth

Rebar diameter d_{nom} [1)]	Nominal drilling diameter d_{cut}	Max permissible embedment depth ℓ_v
[mm	[mm]	[mm]
8	12	400
10	14	500
12	16	600
14	18	700
16	20	800
20	25	1000
25	32	1000
28	35	1000
32	40	1000
40	55	1000

[1)] The maximum outer rebar diameter over the ribs shall be:
nominal diameter of the bar d_{nom} + 0,20 d_{nom}

Table B4: Processing and Cure time

Concrete temperature [°C]	**Gel time [minutes]**	**Cure time [hours]**
+5 to +10	20	24
+10 to +15		12
+15 to +20	15	8
+20 to +25	11	7
+25 to +30	8	6
+30 to +35	6	5
+35 to +40	4	4
+40	3	3

Table B6: Brush

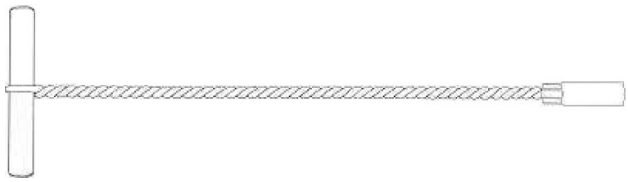
Sizes		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32	Ø40
Drill hole diameter d_0	[mm]	12	14	16	18	20	25	32	35	40	55
Steel brush diameter	[mm]	S12HF S13HF	S14HF S15HF	S18HF	S22HF		S27HF	S35HF	S38HF	S43HF	S58HF
Brushes head length	[mm]	75									

If required use additional accessories and extension for air nozzle and brush to reach back of hole.

Max. hole depth	Brush / extension configuration	Part
375 mm	Brush head unit + handle unit	(a)+(b)
675 mm	Brush head unit + extension piece + handle unit	(a)+(c)+(b)
975 mm	Brush head unit + 2x extension piece + handle unit	(a)+(c)+(c)+(b)

Part (a)

Part (b)



Part (c)

Table B7: Extension hose for deep holes

Sizes		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32	Ø40
Hole diameter	[mm]	12	14	16	18	20	25	32	35	40	55
Extension hose	[mm]	6		9							
Resin stopper	[mm]	-	-	-	-	18	22	30		36	50

Table C1: Design values of the ultimate bond resistance f_{bd} [1)] $_d$ in N/mm^2 for all drilling methods for good bond conditions

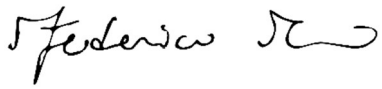
Size d_s [mm]	Concrete class								
	C12/15	C16/20	C20/25	C25/30	C30/37	C35/45	C40/50	C45/55	C50/60
8	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	
10									
12									
14									
16									
20									
25									
28								3,7	
32					2,7				
40		1,6							

[1)] Tabulated values f_{bd} are valid for good bond conditions according to EN 1992-1-1. For all other bond conditions multiply the values for f_{bd} by 0,7.

8 DOCUMENTAZIONE TECNICA APPROPRIATA E/O DOCUMENTAZIONE TECNICA SPECIFICA

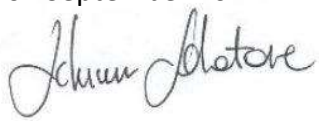
La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa, in conformità al regolamento (UE) n. 305/2011, sotto la sola responsabilità del fabbricante sopra identificato.
Firmato a nome e per conto del fabbricante da:

Name : Federico Moroni
PE Refurbishment
At Peschiera Borromeo
on 07 September 2021



. . . . . .

Name : Salvatore Schirinzi
General Manager
At Peschiera Borromeo
on 07 September 2021



. . . . . .

End of information as required by Regulation (EU) No 305/2011

RELATED DECLARATION OF PERFORMANCE

Product Name	Harmonised technical specification	DoP Number
Sika AnchorFix®-3001 steel bonded anchor	ETA-14/0157	10856840

LABEL CE COMPLETA

CE

14

Sika Services AG, Zurich, Switzerland

DoP No. 51057369

ETAG 001, Part 1 “Anchors in general”, Part 5 “Bonded anchors”

Notified Body 1020

Resina per fissaggio di ferri di ripresa post-installati

Reaction to fire - Anchorages satisfy requirements for Class A1

Anchorages subject to: Static and quasi-static load.

Base materials

- Reinforced or unreinforced normal weight concrete according to EN 206-1:2000-12
- Strength classes C12/15 to C50/60 according to EN 206-1:2000-12.
- Maximum chloride concrete of 0,40% (CL 0.40) related to the cement content according to EN 206-1:2000-12.
- Non-carbonated concrete.
  Note: In case of a carbonated surface of the existing concrete structure the carbonated layer shall be removed in the area of the post installed rebar connection (with a diameter d_s + 60 mm) prior to the installation of the new rebar. The depth of concrete to be removed shall correspond to at least minimum concrete cover in accordance with EN 1992-1-1:2004.
  The foregoing may be neglected if building components are new and not carbonated.

Temperature range:

- -40°C to +80°C (max. short. term temperature +80°C and max. long term temperature+40°C)

Use conditions (Environmental conditions) -The rebars may be installed in dry or wet concrete.

Design:

- The anchorages are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the forces to be transmitted.
- Design according to EN 1992-1-1:2004
- The position of the reinforcement in the existing structure shall be determined on the basis of the construction documentation and taken into account when designing.

Installation:

- Dry or wet concrete.
- It must not be installed in flooded holes.
- Hole drilling by hammer drill or compressed air drill mode.
- The installation of post-installed rebars shall be done only by suitable trained installer and under supervision on site. The conditions under which an installer may be considered as suitable trained and the conditions for supervision on site are up to the Member States in which the installation is done.
- Check the position of the existing rebars.

Table A1: Materials

Product form		**Bars and de-coiled rods**	
Class		B	C
Characteristic yield strength f_{yk} or $f_{0,2k}$ (MPa)		400 to 600	
Minimum value of $k = (f_t / f_y)_k$		≥ 1,08	≥ 1,15 < 1,35
Characteristic strain at maximum force ε_{uk} (%)		≥ 5,0	≥ 7,5
Bendability		Bend / Rebend test	
Maximum deviation from nominal mass (individual bar) (%)	Nominal bar size (mm) ≤ 8 > 8	 ± 6,0 ± 4,5	
Bond: Minimum relative rib area, $f_{R,min}$	Nominal bar size (mm) 8 to 12 > 12	 0,040 0,056	

Table B1: Minimum concrete cover min c of the bonded-in rebar depending on drilling method

Drilling method	Without drilling aid
Hammer drilling	30mm + 0,06 $\ell_v \geq 2\ d_s$
Compressed air drilling	50 mm + 0,08 ℓ_v

Table B2: Minimum anchorage length[1)] and lap lengths for C20/25 and maximum installation length l_{max} for good bond conditions.

Rebar		$\ell_{b,min}$	$\ell_{0,min}$	ℓ_{max}
$Ød_s$ [mm]	$f_{y,k}$ [N/mm²]	[mm]	[mm]	[mm]
8	500	170	300	400
10	500	212	300	500
12	500	255	300	600
14	500	298	315	700
16	500	340	360	800
20	500	425	450	1000
25	500	532	563	1000
28	500	595	630	1000
32	500	681	720	1000
40	500	851	900	1000

1)
According to EN 1992-1-1: $\ell_{b,min}$ (8.6) and $\ell_{0,min}$ (8.11) for good bond conditions and $\alpha_6 = 1,0$ with maximum yield stress $\sigma_{sd} = 435$ N/mm² for rebar B500-B and $\gamma_M = 1,15$ and maximum installation length.

Table B3: Drilling diameter and maximum anchorage depth

Rebar diameter d_{nom} [1)]	Nominal drilling diameter d_{cut}	Max permissible embedment depth ℓ_v
[mm	[mm]	[mm]
8	12	400
10	14	500
12	16	600
14	18	700
16	20	800
20	25	1000
25	32	1000
28	35	1000
32	40	1000
40	55	1000

[1)] The maximum outer rebar diameter over the ribs shall be:
nominal diameter of the bar d_{nom} + 0,20 d_{nom}

Table B4: Processing and Cure time

Concrete temperature [°C]	**Gel time [minutes]**	**Cure time [hours]**
+5 to +10	20	24
+10 to +15		12
+15 to +20	15	8
+20 to +25	11	7
+25 to +30	8	6
+30 to +35	6	5
+35 to +40	4	4
+40	3	3

Table B6: Brush

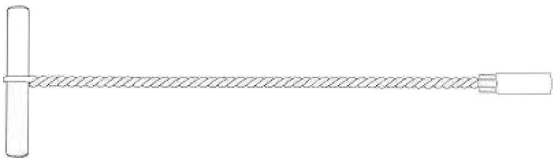
Sizes		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32	Ø40
Drill hole diameter d_0	[mm]	12	14	16	18	20	25	32	35	40	55
Steel brush diameter	[mm]	S12HF S13HF	S14HF S15HF	S18HF	S22HF		S27HF	S35HF	S38HF	S43HF	S58HF
Brushes head length	[mm]	7									

If required use additional accessories and extension for air nozzle and brush to reach back of hole.

Max. hole depth	Brush / extension configuration	Part
375 mm	Brush head unit + handle unit	(a)+(b)
675 mm	Brush head unit + extension piece + handle unit	(a)+(c)+(b)
975 mm	Brush head unit + 2x extension piece + handle unit	(a)+(c)+(c)+(b)

Part (a)

Part (b)



Part (c)

Table B7: Extension hose for deep holes

Sizes		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32	Ø40
Hole diameter	[mm]	12	14	16	18	20	25	32	35	40	55
Extension hose	[mm]	6		9							
Resin stopper	[mm]	-	-	-	-	18	22	3		36	50

Table C1: Design values of the ultimate bond resistance f_{bd} [1)] in N/mm^2 for all drilling methods for good bond conditions

Size d_s [mm]	Concrete class								
	C12/15	C16/20	C20/25	C25/30	C30/37	C35/45	C40/50	C45/55	C50/60
8	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	
10									
12									
14									
16									
20									
25									
28								3,7	
32					2,7				
40		1,6							

[2)] Tabulated values f_{bd} are valid for good bond conditions according to EN 1992-1-1. For all other bond conditions multiply the values for f_{bd} by 0,7.

http://dop.sika.com

LABEL CE DA INSERIRE SULL'ETICHETTA

CE
14
Sika Services AG, Zurich, Switzerland
DoP No. 51057369
ETAG 001, Part 1 "Anchors in general", Part 5 "Bonded anchors"
Notified Body 1020
Resina per fissaggio di ferri di ripresa post-installati
For details see accompanying documents
http://dop.sika.com

ECOLOGY, HEALTH AND SAFETY INFORMATION (REACH)

Per informazioni e consigli sulla manipolazione, sullo stoccaggio e sullo smaltimento sicuro di prodotti chimici, chi fa uso dei prodotti deve consultare la versione più recente della Scheda di sicurezza (SDS) che riporta le informazioni sulle caratteristiche fisiche, ecologiche e tossicologiche dei prodotti, insieme ad altri informazioni sulla sicurezza.

NOTE LEGALI

Sika Italia Spa
Via Luigi Einaudi, 6
20068 Peschiera Borromeo
(MI)
Italia
www.sika.com

Dichiarazione di Prestazione
Sika AnchorFix®-3001

51057369
2017.07 , ver. 1
1138