

# Sika AnchorFix®-3030

# DECLARATION OF PERFORMANCE

# No. 68247540

1	CODE D'IDENTIFICATION UNIQUE DU PRODUIT TYPE :	68247540
2	USAGES PRÉVUS :	Scellement chimique de tiges filetées pour utilisation dans du béton fissuré et non fissuré
3	FABRICANT :	Sika Services AG Tüffenwies 16 8064 Zürich
4	SYSTEME(S) D'EVALUATION ET DE VERIFICATION DE LA CONSTANCE DES PERFORMANCES :	Système 1
5b	DOCUMENT D'ÉVALUATION EUROPÉEN :	EAD 330499-02-0601 ; édition septembre 2022
	Agrément Technique Européen :	ETA 17/0694 de 09/09/2025
	Organisme d'Evaluation Technique :	Institut technique et d'essais pour la construction de Prague
	Organisme notifié :	1020

#### 6 **PERFORMANCES DECLAREES**

Caractéristiques essentielles	Performances	AVCP	Spécifications techniques harmonisées
Résistance mécanique et stabilité (BWR 1)			
Résistance caractéristique en traction sous charges statiques et quasi-statiques	Voir Annexe C 1 à C 7	Système 1	e 2022
Résistance caractéristique au cisaillement sous charges statiques et quasi-statiques	Voir Annexe C 8 à C 10	Système 1	eptembr
Déplacements sous charge de long ou de court durées	Voir Annexe C 11	Système 1	tion s
Résistance caractéristique et déplacement sous charge sismique de catégories C1, C2	Voir Annexe C 12 à C 14	Système 1	330499-02-0601 ; édition septembre 2022
Sécurité en cas d'incendie (BWR 2)			7-00
Voir Annexe C 12 à C 14	Réaction au feu de Classe A 1	Système 1	0-6
Résistance au feu	Voir Annexe C 15 à C 16	Système 1	049
Hygiène, santé et environnement (BWR 3)	NPD	Système 1	- EAD 33(
Durabilité et l'aptitude à l'usage	Ne sont garanties que si les spécifications relatives	Système 1	<u> </u>
Dui abilite et i aptitude a i usage	à l'usage prévu visées à l'Annexe B 1 sont respectées	Systeme 1	

**Table C1:** Design method EN 1992-4 Steel failure - Characteristic values of resistance to tension load of threaded rod

Steel failure - Characteristic resista	ance									
Size			M8	M10	M12	M16	M20	M24	M27	M30
Steel grade 4.6	$N_{Rk,s}$	[kN]	15	23	34	63	98	141	184	224
Partial safety factor	γMs	[-]				2,	00			
Steel grade 5.8	N <sub>Rk,s</sub>	[kN]	18	29	42	79	123	177	230	281
Partial safety factor	γMs	[-]				1,	50			
Steel grade 8.8	$N_{Rk,s}$	[kN]	29	46	67	126	196	282	367	449
Partial safety factor	γMs	[-]				1,	50			
Steel grade 10.9	$N_{Rk,s}$	[kN]	37	58	84	157	245	353	459	561
Partial safety factor	γMs	[-]				1,	40			
Stainless steel grade A2-70, A4-70	$N_{Rk,s}$	[kN]	26	41	59	110	172	247	321	393
Partial safety factor	γMs	[-]				1,	87			
Stainless steel grade A4-80	$N_{Rk,s}$	[kN]	29	46	67	126	196	282	367	449
Partial safety factor	γMs	[-]				1,	60			
Stainless steel grade 1.4529	$N_{Rk,s}$	[kN]	26	41	59	110	172	247	321	393
Partial safety factor	γMs	[-]				1,	50			
Stainless steel grade 1.4565	$N_{Rk,s}$	[kN]	26	41	59	110	172	247	321	393
Partial safety factor	γMs	[-]				1,	87			

**Table C2:** Design method EN 1992-4 Steel failure - Characteristic values of resistance to tension load of threaded socket

Steel failure - Characteristic resista	ince							
Size			M6	M8	M10	M12	M16	M20
Steel grade 4.6	$N_{Rk,s}$	[kN]	8	15	23	34	63	98
Partial safety factor	γMs	[-]			2,	00		
Steel grade 5.8	$N_{Rk,s}$	[kN]	10	18	29	42	79	123
Partial safety factor	γMs	[-]			1,	50		
Steel grade 8.8	$N_{Rk,s}$	[kN]	16	29	46	67	126	196
Partial safety factor	γMs	[-]			1,	50		
Steel grade 10.9	$N_{Rk,s}$	[kN]	20	37	58	84	157	245
Partial safety factor	γMs	[-]			1,	40		
Stainless steel grade A2-70, A4-70	$N_{Rk,s}$	[kN]	14	26	41	59	110	172
Partial safety factor	γMs	[-]			1,	87		
Stainless steel grade A4-80	$N_{Rk,s}$	[kN]	16	29	46	67	126	196
Partial safety factor	γMs	[-]			1,	60		
Stainless steel grade 1.4529	$N_{Rk,s}$	[kN]	14	26	41	59	110	172
Partial safety factor	γMs	[-]			1,	50		
Stainless steel grade 1.4565	$N_{Rk,s}$	[kN]	14	26	41	59	110	172
Partial safety factor	γMs	[-]			1,	87		

**Table C3:** Design method EN 1992-4 Steel failure - Characteristic values of resistance to tension load of rebar

Steel failure – Characteristic resistance									
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Rebar BSt 500 S	$N_{Rk,s}$	[kN]	28	43	62	111	173	270	442
Partial safety factor	γMs	[-]				1,4			

Sika AnchorFix®-3030	
Performances Steel failure characteristic resistance	Annex C 1



Table C4: Design method EN 1992-4

Characteristic values of resistance to tension load of threaded rod

## Hammer drilling, Dustless drilling

Combined pullout and concrete cone f	unule	III COIICIE							_	
Size			M8	M10	M12	M16	M20	M24	M27	M30
Characteristic bond resistance in und									,	
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]		14,8		12,2	12,2	12,2	10,7	9,6
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	16,6	14,3	14,3	11,8	11,8	11,8	10,4	9,3
Installation safety factor										
Dry, wet concrete	γinst	[-]					,0			
Hammer drilling – Flooded hole	γinst	[-]					,0			
Dustless drilling – Flooded hole	γinst					1	,2			
Characteristic bond resistance in cra										
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	9,7	9,7	9,7	9,5	9,1	8,8	6,2	6,1
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	9,4	9,4	9,4	9,2	8,8	8,5	6,0	5,9
Installation safety factor										
Dry, wet concrete	γinst	[-]					,0			
Hammer drilling – Flooded hole	γinst	[-]					,0			
Dustless drilling – Flooded hole	γinst	[-]				1	2			
Factor for influence of T3: 50°C / 70°C						0,	72			
sustained load for a	$\Psi^0_{\text{sus}}$	[-]	i			1	00			
working life 50 years										
C25/30							02			
C30/37						1,				
Factor for concrete C35/45	Ψс	[-]	1,06 1,07							
C40/50	•	.,								
C45/55							08			
C50/60						1,	09			
Concrete cone failure Factor for concrete cone failure										
factor for concrete cone failure for uncracked concrete	Kucr,N					1	1			
Factor for concrete cone failure	k	[-]				7	,7			
for cracked concrete	k <sub>cr,N</sub>						·			
Edge distance	C <sub>cr,N</sub>	[mm]				1,5	h <sub>ef</sub>			
Splitting failure										
Size			M8	M10	M12	M16	M20	M24	M27	M30
Edge distance	Ccr,sp	[mm]				2 •	hef			
Spacing	Scr,sp	[mm]				2 • 0	Ccr,sp			

Sika AnchorFix®-3030	
Performances	Annex C 2
Hammer drilling, Dustless drilling	
Characteristic resistance for tension loads - threaded rod	

## **Déclaration de Performances**



**Table C5:** Design method EN 1992-4 Characteristic values of resistance to tension load of threaded socket

## Hammer drilling, Dustless drilling

Combined pullout and concrete co	ne failure i	in concret	te C20/2	for a wo	rking life	of 50 ye	ars and 1	00 year
Size			M6	M8	M10	M12	M16	M20
Nominal external diameter of socket	t		M10	M12	M16	M20	M24	M30
Characteristic bond resistance in	uncracke	d concre	te					
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	14,8	14,8	12,2	12,2	12,2	9,6
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	14,3	14,3	11,8	11,8	11,8	9,3
Installation safety factor								
Dry, wet concrete	γinst	[-]			1	,0		
Hammer drilling – Flooded hole	γinst	[-]				,0		
Dustless drilling – Flooded hole	γinst	[-]			1	,2		
Characteristic bond resistance in	cracked o	concrete						
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	9,7	9,7	9,5	9,1	8,8	6,1
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	9,4	9,4	9,2	8,8	8,5	5,9
Installation safety factor								
Dry, wet concrete	$\gamma$ inst	[-]				,0		
Hammer drilling – Flooded hole	$\gamma$ inst	[-]				,0		
Dustless drilling – Flooded hole	γinst	[-]			1	,2		
Factor for influence of T3: 50°C / 7	0°C				0,	72		
sustained load for a	W <sup>0</sup> eue	[-]			1	00		
working life 30 years						00		
	5/30					02		
	0/37					04		
Factor for concrete	5/45 VEO Ψο	[-]				06		
	1/50	.,				07		
	5/55					08		
	0/60				1,	09		
Concrete cone failure								
Factor for concrete cone failure	k <sub>ucr,N</sub>				1	1		
for uncracked concrete		[-]						
Factor for concrete cone failure for cracked concrete	k <sub>cr,N</sub>				7	,7		
Edge distance	C	[mm]			1.5	h <sub>ef</sub>		
Splitting failure	C <sub>cr,N</sub>	[IIIIII]			1,5	/I lef		
Size			M6	M8	M10	M12	M16	M20
		[mm]	IVIO	IVIO			INITO	IVIZU
Edge distance	Ccr,sp	[mm]				hef		
Spacing	Scr,sp	[mm]			2 • (	Cor,sp		

Sika AnchorFix®-3030	
Performances	Annex C 3
Hammer drilling, Dustless drilling	
Characteristic resistance for tension loads - threaded socket	

## **Déclaration de Performances**



**Table C6:** Design method EN 1992-4 Characteristic values of resistance to tension load of rebar

## Hammer drilling, Dustless drilling

Combined pullout and concrete cone fa	allure i	n concret			_		_		
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Characteristic bond resistance in un	cracke	ed concre	ete						
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	13,3	13,3	13,3	11,7	11,7	11,7	8,1
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	12,9	12,9	12,9	11,3	11,3	11,3	7,8
Installation safety factor									
Hammer drilling - Dry, wet concrete	γinst	[-]				1,0			
Dustless drilling - Dry, wet concrete	γinst	[-]				1,2			
Flooded hole	γinst	[-]				1,2			
Characteristic bond resistance in cra	cked	concrete							
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	8,1	11,4	10,7	10,4	9,9	8,6	6,4
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	7,8	11,0	10,3	10,1	9,6	8,4	6,2
Installation safety factor									
Hammer drilling - Dry, wet concrete	γinst	[-]				1,0			
Dustless drilling - Dry, wet concrete	γinst	[-]				1,2			
Flooded hole	γinst	[-]				1,2			
Factor for influence of T3: 50°C / 70°C						0,72			
sustained load for a working life 50 years T4: 55°C / 75°C	Ψ <sup>0</sup> sus	[-]				1,00			
C25/30						1,02			
C30/37			1,04						
Factor for concrete C35/45	Ψс	[-]	1,06						
C40/50	40	.,				1,07			
C45/55						1,08			
C50/60						1,09			

Concrete cone failure			
Factor for concrete cone failure for uncracked concrete	Kucr,N		11
Factor for concrete cone failure for cracked concrete	k <sub>cr,N</sub>	[-]	7,7
Edge distance	Ccr,N	[mm]	1,5hef

Splitting failure										
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	
Edge distance	C <sub>cr,sp</sub>	[mm]	2 • h <sub>ef</sub>							
Spacing	S <sub>cr,sp</sub>	[mm]	2 • c <sub>cr,sp</sub>							

Sika AnchorFix®-3030	
Performances	Annex C 4
Hammer drilling, Dustless drilling	
Characteristic resistance for tension loads - rebar	

## **Déclaration de Performances**



Table C7: Design method EN 1992-4

Characteristic values of resistance to tension load of threaded rod

## Diamond core drilling

Combined pullout and concrete con	e failure	in concre	to C20	125							
Size	e iaiiuie	III CONCIE	M8	M10	M12	M16	M20	M24	M27	M30	
Characteristic bond resistance in u	ıncracke	d concre									
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]				_	12,2	12,2	10,7	9,6	
Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ]		14,3	14,3	11,8	11,8	11,8	10,4	9,3	
Installation safety factor											
Dry, wet concrete	γinst	[-]				1	,0				
Flooded hole	γinst	[-]				1	,2				
Characteristic bond resistance in o	racked o	concrete	for a w	orking	life of	50 yea	rs				
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	9,7	9,7	9,7	9,5	8,7	8,7	6,2	6,1	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	9,4	9,4	9,4	9,2	8,4	8,4	6,0	5,9	
Characteristic bond resistance in o	racked o	concrete	for a w	orking	life of	100 ye	ars				
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	8,6	8,6	8,6	8,6	8,2	8,2	6,2	5,5	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	8,3	8,3	8,3	8,3	7,9	7,9	6,0	5,3	
Installation safety factor											
Dry, wet concrete	γinst	[-]					,0				
Flooded hole	γinst	[-]	1,2								
Factor for influence of T3: 50°C / 70	°C					0.	76				
sustained load for a	Ç Ψ <sup>0</sup> sus	[-]	0,76								
Working life 50 years						,					
C25/			1,02								
C30/			1,04								
Factor for concrete C35/	111	[-]	1,06								
C40/	50 .	.,	1,07								
C45/			1,08 1,09								
C50/	bU					1,	09				
Concrete cone failure											
Factor for concrete cone failure for uncracked concrete	k <sub>ucr,N</sub>					1	1				
Factor for concrete cone failure		[-]									
for cracked concrete	Kcr,N					7	,7				
Edge distance	C <sub>cr,N</sub>	[mm]				1 F	h <sub>ef</sub>				
Splitting failure	Ccr,N	[11111]				1,0	/i ier				
Size			M8	M10	M12	M16	M20	M24	M27	M30	
Edge distance	C <sub>cr,sp</sub>	[mm]					h <sub>ef</sub>				
Spacing	S <sub>cr,sp</sub>	[mm]					Cor,sp				
Opacing	ocr,sp	[mm]				2 * (	-cr,sp				

Sika AnchorFix®-3030	
Performances	Annex C 5
Diamond core drilling	
Characteristic resistance for tension loads - threaded rod	

## **Déclaration de Performances**



Table C8: Design method EN 1992-4

Characteristic values of resistance to tension load of threaded socket

## Diamond core drilling

Size			M6	M8	M10	M12	M16	M20			
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30			
Characteristic bond resistance in u	ıncracke	d concre					100 year	s			
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	14,8	14,8	12,2	12,2	12.2	9,6			
Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ]	14,3	14,3	11,8	11,8	11,8	9,3			
Installation safety factor											
Dry, wet concrete	γinst	[-]			1	,0					
Flooded hole	γinst				1	,2					
Characteristic bond resistance in o	cracked o	concrete	or a wor	king life	of 50 yea	rs					
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	9,7	9,7	9,5	8,7	8,7	6,1			
Temperature T4: 55°C / 75°C	TRk.ucr	[N/mm <sup>2</sup> ]	9,4	9,4	9,2	8,4	8,4	5,9			
Characteristic bond resistance in o			or a wor	king life	of 100 ye	ars					
Temperature T3: 50°C / 70°C	TRk.ucr	[N/mm <sup>2</sup> ]	8,6	8,6	8,6	8,2	8,2	5,5			
Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ]	8,3	8,3	8,3	7,9	7,9	5,3			
Installation safety factor											
Dry, wet concrete	γinst	[-]			1	,0					
Flooded hole	γinst		1,2								
Factor for influence of T3: 50°C / 70	°C		0,76 0,76								
sustained load for a	W <sub>0</sub> eue	[-]									
working life 50 years T4: 55°C / 75											
C25/			1,02								
C30/			1,04								
Factor for concrete C35/	111	[-]	1,06								
C40/	50 .	.,	1,07 1,08								
C45/											
C50/	60				1,	09					
Concrete cone failure											
Factor for concrete cone failure	k <sub>ucr,N</sub>				1	1					
for uncracked concrete  Factor for concrete cone failure		[-]									
for cracked concrete	k <sub>cr,N</sub>		7,7								
Edge distance	Ccr.N		1,5hef								
Splitting failure	Ccr,N	[111111]			1,5	A let					
Size			M6	M8	M10	M12	M16	M20			
Edge distance	6	[mm]	IVIO	IVIO		h <sub>ef</sub>	IVITO	IVIZ			
Eage distance Spacing	C <sub>cr,sp</sub>	[HIIII]				Tlef C <sub>cr,sp</sub>					

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	Sika AnchorFix®-3030		
	Performances	Annex C 6	
	Diamond core drilling		
	Characteristic resistance for tension loads - threaded socket		

**Déclaration de Performances** 



**Table C9:** Design method EN 1992-4 Characteristic values of resistance to tension load of rebar

Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Characteristic bond resistance	in uncracke	ed concre	ete						
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	13,3	12,3	12,3	11,7	11,0	10,9	8,1
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	12,9	11,9	11,9	11,9	10,7	10,5	7,8
Installation safety factor									
Dry, wet concrete	γinst	[-]				1,0			
Flooded hole	γinst	[-]				1,2			
Characteristic bond resistance	in cracked	concrete	for a w	orking l	ife of 50	years			
Temperature T3: 50°C / 70°C	TRkum	[N/mm <sup>2</sup> ]	8.1	8.3	8.1	8.1	7.3	6.6	6.4

i looded floid		/ inst	[-]	1,2									
Characteristic bond r	esistance in cra	cked	concrete	for a w	orking l	ife of 50	years						
Temperature T3: 50°C /	/70°C	TRk,ucr	[N/mm <sup>2</sup> ]	8,1	8,3	8,1	8,1	7,3	6,6	6,4			
Temperature T4: 55°C /	/75°C	TRk,ucr	[N/mm <sup>2</sup> ]	7,8	8,0	7,8	7,8	7,1	6,4	6,2			
Characteristic bond r	esistance in cra	cked	concrete	for a w	orking l	ife of 10	0 years						
Temperature T3: 50°C /	/70°C	TRk,ucr	[N/mm <sup>2</sup> ]	6,4	7,2	7,2	7,2	6,9	6,3	5,8			
Temperature T4: 55°C	/75°C	TRk,ucr	[N/mm <sup>2</sup> ]	6,2	7,0	7,0	7,0	6,7	6,1	5,6			
Installation safety factor	or												
Dry, wet concrete		γinst	[-]				1,0						
Flooded hole		γinst	[-]				1,2						
Factor for influence of	T3: 50°C / 70°C			0,76									
sustained load for a working life 50 years	T4: 55°C / 75°C	Ψ <sup>0</sup> sus	Ψ <sup>0</sup> sus [-]		0,76								
Factor for concrete	C25/30 C30/37 C35/45 C40/50	Ψα	[-]				1,02 1,04 1,06 1,07						
	C45/55 C50/60						1,08 1.09						

Concrete cone failure			
Factor for concrete cone failure for uncracked concrete	k <sub>ucr,N</sub>		11
Factor for concrete cone failure for cracked concrete	k <sub>cr,N</sub>	[-]	7,7
Edge distance	C <sub>cr,N</sub>	[mm]	1,5h <sub>ef</sub>

Splitting failure										
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	
Edge distance	C <sub>cr,sp</sub>	[mm]	2 • h <sub>ef</sub>							
Spacing	S <sub>cr,sp</sub>	[mm]	2 • c <sub>cr,sp</sub>							

Sika AnchorFix®-3030	
Performances	Annex C 7
Diamond core drilling	
Characteristic resistance for tension loads - rebar	



**Table C10:** Design method EN 1992-4 Characteristic values of resistance to shear load of threaded rod

Partial safety factor         γ <sub>Ms</sub> [-]         1,67           Steel grade 5.8         V <sub>Rk,s</sub> [kN]         11         17         25         47         74         106         138         168           Partial safety factor         γ <sub>Ms</sub> [-]         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25	Size			M8	M10	M12	M16	M20	M24	M27	M30
Partial safety factor         γ <sub>Ms</sub> [-]         1,67           Steel grade 5.8         V <sub>Rk,s</sub> [kN]         11         17         25         47         74         106         138         168           Partial safety factor         γ <sub>Ms</sub> [-]         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,24         161         196         1,25         1,25         1,25         1,25	Steel grade 4.6	$V_{Rk,s}$	[kN]	9	14	20	38	59	85	110	135
Partial safety factor         γMs         [-]         1,25           Steel grade 8.8         V <sub>Rk,s</sub> [kN]         15         23         34         63         98         141         184         224           Partial safety factor         γMs,s         [F]         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,26         1,24         161         196         1,24         161         196         1,24         161         196         1,24         161         196         1,24         161         196         1,25         1,25         1,2	Partial safety factor						1,	67			
Steel grade 8.8   VRk,s   [kN]   15   23   34   63   98   141   184   224	Steel grade 5.8	$V_{Rk,s}$	[kN]	11	17	25	47	74	106	138	168
Partial safety factor       γ <sub>Ms</sub> [-]       1,25         Steel grade 10.9       V <sub>Rk,s</sub> [kN]       18       29       42       79       123       177       230       281         Partial safety factor       γ <sub>Ms</sub> [-]       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,2       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,	Partial safety factor	γMs	[-]				1,	25			
Steel grade 10.9   VRk,s   [kN]   18   29   42   79   123   177   230   281	Steel grade 8.8	$V_{Rk,s}$	[kN]	15	23	34	63	98	141	184	224
Partial safety factor       γ <sub>Ms</sub> [-]       1,5         Stainless steel grade A2-70, A4-70       V <sub>Rk,s</sub> [kN]       13       20       30       55       86       124       161       196         Partial safety factor       γ <sub>Ms,s</sub> [kN]       15       23       34       63       98       141       184       224         Partial safety factor       γ <sub>Ms</sub> [-]       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       <	Partial safety factor	γMs	[-]				1,	25			
Stainless steel grade A2-70, A4-70   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Partial safety factor   γ <sub>Ms</sub>   [-]   1,56     Stainless steel grade A4-80   V <sub>Rk,s</sub>   [kN]   15   23   34   63   98   141   184   224     Partial safety factor   γ <sub>Ms</sub>   [-]   1,33     Stainless steel grade 1.4529   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Partial safety factor   γ <sub>Ms</sub>   [-]   1,25     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   V <sub></sub>	Steel grade 10.9	V <sub>Rk,s</sub>	[kN]	18	29	42	79	123	177	230	281
Partial safety factor         γ <sub>Ms</sub> [-]         1,56           Stainless steel grade A4-80         V <sub>Rk,s</sub> [kN]         15         23         34         63         98         141         184         224           Partial safety factor         γ <sub>Ms</sub> [-]         1,33           Stainless steel grade 1.4529         V <sub>Rk,s</sub> [kN]         13         20         30         55         86         124         161         196           Partial safety factor         γ <sub>Ms</sub> [-]         1,25           Stainless steel grade 1.4565         V <sub>Rk,s</sub> [kN]         13         20         30         55         86         124         161         196	Partial safety factor	γMs	[-]	1,5							
Stainless steel grade A4-80     V <sub>Rk,s</sub> [kN]     15     23     34     63     98     141     184     224       Partial safety factor     γ <sub>Ms</sub> [-]     1,33       Stainless steel grade 1.4529     V <sub>Rk,s</sub> [kN]     13     20     30     55     86     124     161     196       Partial safety factor     γ <sub>Ms</sub> [-]     1,25       Stainless steel grade 1.4565     V <sub>Rk,s</sub> [kN]     13     20     30     55     86     124     161     196	Stainless steel grade A2-70, A4-70	$V_{Rk,s}$	[kN]	13	20	30	55	86	124	161	196
Partial safety factor       γMs       [-]       1,33         Stainless steel grade 1.4529       VRk,s       [kN]       13       20       30       55       86       124       161       196         Partial safety factor       γMs       [-]       1,25         Stainless steel grade 1.4565       VRk,s       [kN]       13       20       30       55       86       124       161       196	Partial safety factor	γMs	[-]	1,56							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Stainless steel grade A4-80	$V_{Rk,s}$	[kN]	15	23	34	63	98	141	184	224
Partial safety factor         γ <sub>Ms</sub> [-]         1,25           Stainless steel grade 1.4565         V <sub>Rk,s</sub> [kN]         13         20         30         55         86         124         161         196	Partial safety factor	γMs	[-]	1,33							
Stainless steel grade 1.4565 VRk,s [kN] 13 20 30 55 86 124 161 196	Stainless steel grade 1.4529	$V_{Rk,s}$	[kN]	13	20	30	55	86	124	161	196
	Partial safety factor	γMs	[-]				1,	25			
Partial safety factor γ <sub>Ms</sub> [-] 1,56	Stainless steel grade 1.4565	$V_{Rk,s}$	[kN]	13	20	30	55	86	124	161	196
	Partial safety factor	γMs	[-]				1,	56			

Steel failure with lever arm									
Size		M8	M10	M12	M16	M20	M24	M27	M30
Steel grade 4.6	M <sup>o</sup> Rk,s [N.m]	15	30	52	133	260	449	666	900
Partial safety factor	γMs [-]				1,	,67			
Steel grade 5.8	M° <sub>Rk,s</sub> [N.m]	19	37	66	166	325	561	832	1125
Partial safety factor	γMs [-]				1,	,25			
Steel grade 8.8	Mork,s [N.m]	30	60	105	266	519	898	1332	1799
Partial safety factor	γMs [-]				1,	,25			
Steel grade 10.9	Mº <sub>Rk,s</sub> [N.m]	37	75	131	333	649	1123	1664	2249
Partial safety factor	γ <sub>Ms</sub> [-]				1,	,50			
Stainless steel grade A2-70, A4-70	Mº <sub>Rk,s</sub> [N.m]	26	52	92	233	454	786	1165	1574
Partial safety factor	γMs [-]				1,	,56			
Stainless steel grade A4-80	M° <sub>Rk,s</sub> [N.m]	30	60	105	266	519	898	1332	1799
Partial safety factor	γMs [-]				1,	,33			
Stainless steel grade 1.4529	M° <sub>Rk,s</sub> [N.m]	26	52	92	233	454	786	1165	1574
Partial safety factor	γMs [-]				1,	,25			
Stainless steel grade 1.4565	Mº <sub>Rk,s</sub> [N.m]	26	52	92	233	454	786	1165	1574
Partial safety factor	γMs [-]	1,56							
Concrete pryout failure		·	·		·	·		·	·
Factor for resistance to pry-out failure	k <sub>8</sub> [-]					2			

Concrete edge failure										
Size			M8	M10	M12	M16	M20	M24	M27	M30
Outside diameter of fastener	d <sub>nom</sub>	[mm]	8	10	12	16	20	24	27	30
Effective length of fastener	<b>l</b> f	[mm]	min (hef, 8 dnom)							

Sika AnchorFix®-3030	
Performances	Annex C 8
Design according to EN 1992-4	
Characteristic resistance for shear loads - threaded rod	



**Table C11:** Design method EN 1992-4 Characteristic values of resistance to shear load of threaded socket

Size			M6	M8	M10	M12	M16	M20
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30
Steel grade 4.6	V <sub>Rk,s</sub>	[kN]	5	9	14	20	38	59
Partial safety factor	γMs	[-]			1,	67		
Steel grade 5.8	$V_{Rk,s}$	[kN]	6	11	17	25	47	74
Partial safety factor	γMs	[-]			1,	25		
Steel grade 8.8	$V_{Rk,s}$	[kN]	8	15	23	34	63	98
Partial safety factor	γMs	[-]			1,	25		
Steel grade 10.9	$V_{Rk,s}$	[kN]	10	18	29	42	79	123
Partial safety factor	γMs	[-]			1	,5		
Stainless steel grade A2-70, A4-70	V <sub>Rk,s</sub>	[kN]	7	13	20	30	55	86
Partial safety factor	γMs	[-]			1,	56		
Stainless steel grade A4-80	$V_{Rk,s}$	[kN]	8	15	23	34	63	98
Partial safety factor	γMs	[-]			1,	33		
Stainless steel grade 1.4529	$V_{Rk,s}$	[kN]	7	13	20	30	55	86
Partial safety factor	γMs	[-]			1,	25		
Stainless steel grade 1.4565	$V_{Rk,s}$	[kN]	7	13	20	30	55	86
Partial safety factor	γMs	[-]			1,	56		

Steel failure with lever arm										
Size		П	М6	M8	M10	M12	M16	M20		
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30		
Steel grade 4.6	Mº <sub>Rk,s</sub> [N	l.m]	6	15	30	52	133	260		
Partial safety factor YMs [-]					1,	67				
Steel grade 5.8	Mº <sub>Rk,s</sub> [N	l.m]	8	19	37	66	166	325		
Partial safety factor YMs [-]				1,25						
Steel grade 8.8	MºRk,s [N	l.m]	12	30	60	105	266	519		
Partial safety factor	γMs	[-]	1,25							
Steel grade 10.9	Mº <sub>Rk,s</sub> [N	l.m]	15	37	75	131	333	649		
Partial safety factor	γMs	-]			1,	50				
Stainless steel grade A2-70, A4-70	Mº <sub>Rk,s</sub> [N	l.m]	11	26	52	92	233	454		
Partial safety factor	γMs	[-]	1,56							
Stainless steel grade A4-80	Mº <sub>Rk,s</sub> [N	l.m]	12	30	60	105	266	519		
Partial safety factor	γMs	-	1,33							
Stainless steel grade 1.4529	Mº <sub>Rk,s</sub> [N	l.m]	11	26	52	92	233	454		
Partial safety factor	γMs	-1	1,25							
Stainless steel grade 1.4565	Mº <sub>Rk,s</sub> [N	l.m]	11	26	52	92	233	454		
Partial safety factor	[-]			1,	56					
Concrete pryout failure	Concrete pryout failure									
Factor for resistance to pry-out failure	[-]	2								

Concrete edge failure								
Size			M6	M8	M10	M12	M16	M20
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30
Outside diameter of fastener	dnom	[mm]	10	12	16	20	24	30
Effective length of fastener	lf	[mm]	min (h <sub>ef</sub> , 8 d <sub>nom</sub> )					

Sika AnchorFix®-3030	
Performances	Annex C 9
Design according to EN 1992-4	7
Characteristic resistance for shear loads - threaded socket	



## Table C12: Design method EN 1992-4

Characteristic values of resistance to shear load of rebar

Steel failure without lever arm														
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32						
Rebar BSt 500 S	V <sub>Rk,s</sub> [kN]	14	22	31	55	86	135	221						
Partial safety factor	γMs [-]				1,5									
Characteristic resistance of group of fasteners														
Ductility factor	k <sub>7</sub> = 1,0 for steel with rup	ture elor	ngation A	5 > 8%										

Steel failure with lever arm										
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32		
Rebar BSt 500 S	Mº <sub>Rk,s</sub> [N.m]	33	65	112	265	518	1013	2122		
Partial safety factor	γMs [-]				1,5					
Concrete pryout failure										
Factor for resistance to pry-out failure	ks [-]				2					

Concrete edge failure									
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	
Outside diameter of fastener	d <sub>nom</sub> [mm]	8	10	12	16	20	25	32	
Effective length of fastener	ել [mm]	min (h <sub>ef</sub> , 8 d <sub>nom</sub> )							

Sika AnchorFix®-3030	
Performances	Annex C 10
Design according to EN 1992-4	7 miles C 16
Characteristic resistance for shear loads - rebar	

#### **Déclaration de Performances**



**Table C13:** Displacement of threaded rod under tension and shear load Hammer drilling, dustless drilling

	riammer arming, adeleses arming												
Size		M8	M10	M12	M16	M20	M24	M27	M30				
Tensio	n load												
Uncrad	Uncracked concrete												
ŌN0	[mm/kN]	0,03	0,02	0,02	0,02	0,01	0,01	0,01	0,01				
ŌN∞	[mm/kN]	0,05	0,04	0,03	0,03	0,02	0,02	0,01	0,01				
Cracke	Cracked concrete												
ŌN0	[mm/kN]	0,05	0,04	0,03	0,03	0,02	0,02	0,02	0,02				
ŌN∞	[mm/kN]	0,35	0,21	0,14	0,12	0,08	0,07	0,07	0,07				
Shear	Shear load												
δνο	[mm/kN]	0,71	0,45	0,31	0,17	0,11	0,07	0,06	0,05				
δν∞	[mm/kN]	1,06	0,67	0,46	0,25	0,16	0,11	0,08	0,07				

**Table C14:** Displacement of threaded rod under tension and shear load Diamond core drilling

Size		M8	M10	M12	M16	M20	M24	M27	M30	
Tensio	Tension load									
Uncrac	ked concre	ete								
ŌΝO	[mm/kN]	0,01	0,01	0,02	0,02	0,02	0,02	0,01	0,02	
ŌN∞	[mm/kN]	0,09	0,07	0,05	0,04	0,03	0,02	0,02	0,02	
Cracke	ed concrete									
ŌNO	[mm/kN]	0,03	0,04	0,04	0,04	0,03	0,03	0,04	0,04	
ŌN∞	[mm/kN]	0,33	0,28	0,20	0,14	0,12	0,09	0,09	0,08	
Shear	load									
δνο	[mm/kN]	0,71	0,45	0,31	0,17	0,11	0,07	0,06	0,05	
Ō∨∞	[mm/kN]	1,06	0,67	0,46	0,25	0,16	0,11	0,08	0,07	

**Table C15:** Displacement of rebar under tension and shear load Hammer drilling, dustless drilling

				91						
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32		
Tensio	on load									
Uncra	Uncracked concrete									
ŌNO	[mm/kN]	0,04	0,03	0,02	0,01	0,01	0,01	0,01		
ŌN∞	[mm/kN]	0,08	0,05	0,04	0,02	0,02	0,01	0,01		
Crack	Cracked concrete									
ŌΝο	[mm/kN]	0,05	0,04	0,03	0,03	0,02	0,02	0,02		
ŌN∞	[mm/kN]	0,35	0,21	0,17	0,11	0,08	0,07	0,06		
Shear	load									
Ōνο	[mm/kN]	0,38	0,24	0,17	0,10	0,06	0,04	0,02		
δν∞	[mm/kN]	0,56	0,36	0,25	0,14	0,09	0,06	0,04		

**Table C16:** Displacement of rebar under tension and shear load Diamond drilling

		dunion	a armir	9							
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32			
Tensio	on load										
Uncra	Uncracked concrete										
ŌΝΟ	[mm/kN]	0,02	0,02	0,02	0,01	0,01	0,01	0,01			
ŌN∞	[mm/kN]	0,09	0,06	0,04	0,03	0,02	0,01	0,01			
Crack	ed concrete	;									
ŌNO	[mm/kN]	0,04	0,03	0,03	0,02	0,02	0,01	0,01			
ŌN∞	[mm/kN]	0,39	0,26	0,18	0,10	0,07	0,04	0,03			
Shear	load										
Ōνο	[mm/kN]	0,38	0,24	0,17	0,10	0,06	0,04	0,02			
δν∞	[mm/kN]	0,56	0,36	0,25	0,14	0,09	0,06	0,04			

Sika AnchorFix®-3030	
Performances Displacements	Annex C 11



Table C17: Seismic performance category C1 of threaded rod - Hammer drilling, Dustless drilling

Size			M8	M10	M12	M16	M20	M24	M27	M30
Tension load										
Steel failure										
Characteristic resistance grade 4.6	N <sub>Rk,s,C1</sub>	[kN]	15	23	34	63	98	141	184	224
Partial safety factor	γMs	[-]					00			
Characteristic resistance grade 5.8	N <sub>Rk,s,C1</sub>		18	29	42	79	123	177	230	281
Partial safety factor	γMs	[-]		20			50		200	
Characteristic resistance grade 8.8	N <sub>Rk,s,C1</sub>		29	46	67	_	196	282	367	449
Partial safety factor	γMs	[-]			٥.		50	Loz	00.	
Characteristic resistance grade 10.9	N <sub>Rk,s,C1</sub>		37	58	84		245	353	459	561
Partial safety factor	γMs	[-]	- 01	- 00	04		40	000	403	00
Characteristic resistance A2-70, A4-70	N <sub>Rk,s,C1</sub>	[kN]	26	41	59		172	247	321	393
Partial safety factor	γMs	[-]	-20	7.	00		87	241	021	030
Characteristic resistance A4-80	N <sub>Rk,s,C1</sub>		29	46	67		196	282	367	449
Partial safety factor	γMs	[-]	23	40	01		60	202	007	44.
Characteristic resistance 1.4529	N <sub>Rk,s,C1</sub>		26	41	59		172	247	321	393
Partial safety factor	γMs	[-]	-20	71	00		50	241	021	550
Characteristic resistance 1.4565	NRk,s,C1	[kN]	26	41	59	_	172	247	321	393
Partial safety factor	NRK,S,C1 γMs	[-]	20	41	33		87	241	321	330
Combined pullout and concrete cone failu			for a	workin	a life o			d 100	Veare	
Characteristic bond resistance	ile ili colici	ele 020/20	ioi a	WOIKIII	g ille o	1 50 ye	ai S ai	100	year 5	
		FN1/mm21	0.4	0.5	10.0	0.7	7.4	77	E 7	4.0
Temperature T3: 50°C / 70°C Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ] [N/mm <sup>2</sup> ]	9,4 9,1	8,5 8,2	10,0 10,0	8,7 8,4	7,4	7,7 7,5	5,7 5,5	4,9
	₹Rk,p,C1	[IN/IIIIIT]	9,1	0,2	10,0	0,4	1,2	7,5	5,5	4,/
Installation safety factor Dry, wet concrete	20.	[1				- 1	.0			
Hammer drilling – Flooded hole	γinst	[-]					,0 .0			
Dustless drilling – Flooded hole	γinst γinst	[-] [-]					.2			
Dusticss drilling - 1 looded floic	rinst	1-1					,2			
Shear load										
Steel failure without lever arm										
Characteristic resistance grade 4.6	VRk,s,C1	[kN]	5	9	13	20	32	28	37	45
Partial safety factor	γMs	[-]				1,	67			
Characteristic resistance grade 5.8	$V_{Rk,s,C1}$	[kN]	7	11	16	26	40	35	46	56
Partial safety factor	γMs	[-]				1,	25		•	
Characteristic resistance grade 8.8	$V_{Rk,s,C1}$	[kN]	11	17	25	41	64	56	73	90
Partial safety factor	γMs	[-]				1,	25			
Characteristic resistance grade 10.9	$V_{Rk,s,C1}$	[kN]	14	22	32	51	80	71	92	113
Partial safety factor	γMs	[-]				1,	50		•	
Characteristic resistance A2-70, A4-70	VRk,s,C1	[kN]	10	15	22	36	56	49	64	79
Partial safety factor	γMs	[-]				1,	56			
Characteristic resistance A4-80	VRk,s,C1	[kN]	11	17	25	41	64	56	73	90
Partial safety factor	γMs	[-]				1,	33		•	
Characteristic resistance 1.4529	V <sub>Rk,s,C1</sub>	[kN]	10	15	22	36	56	49	64	79
Partial safety factor	γMs	[-]					25			
Characteristic resistance 1.4565	V <sub>Rk,s,C1</sub>		10	15	22	36	56	49	64	79
Partial safety factor	γMs	[-]					56			
Characteristic shear load resistance V <sub>Rk,s,eq</sub>			be mu	Itiplied	by follo			n facto	r for ho	t-dir
	Ivanized co				,	3				
Reduction factor for hot-dip galvanized rods	α <sub>v,h-dg,c1</sub>		0,47		0,47	0,54	0,54	0,88	0,88	0,8
Factor for annular gap without filling gap	αgap						,5			
Factor for annular gan with filling gan	(/gap						n			

The anchor shall be used with minimum rupture elongation after fracture  $A_5 \ge 9\%$ .

αgap

Sika AnchorFix®-3030	
Performances	Annex C 12
Hammer drilling, Dustless drilling	
Seismic performance category C1 of threaded rod	

Déclaration de Performances

Factor for annular gap with filling gap



## Table C18: Seismic performance category C1 of rebar - Hammer drilling, Dustless drilling

Size			Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Tension load								
Steel failure								
Rebar BSt 500 S	NRk,s,C1	[kN]	43	62	111	173	270	442
Partial safety factor	γMs	[-]			1	,4		
Combined pullout and concrete cone fa	ilure in concr	ete C20/25	for a wo	orking life	e of 50 ye	ears and	100 year	s
Characteristic bond resistance								
Temperature T3: 50°C / 70°C	TRk,p,C1	[N/mm <sup>2</sup> ]	9,4	9,8	9,5	8,8	8,0	5,3
Temperature T4: 55°C / 75°C	TRk,p,C1	[N/mm <sup>2</sup> ]	9,1	9,5	9,2	8,5	7,7	5,2
Installation safety factor								
Hammer drilling - Dry, wet concrete	γinst	[-]			1	,0		
Dustless drilling - Dry, wet concrete	γinst	[-]			1	,2		
Flooded hole	γinst	[-]			1	,2		
Shear load								
Steel failure without lever arm								
Rebar BSt 500 S	V <sub>Rk,s,C1</sub>	[kN]	16	23	41	69	67	111
Partial safety factor	γMs	[-]			1	,5		

Sika AnchorFix®-3030	
Performances	Annex C 13
Hammer drilling, Dustless drilling	
Seismic performance category C1 of rebar	

#### **Déclaration de Performances**

Factor for annular gap without filling gap

Factor for annular gap with filling gap

Sika AnchorFix®-3030 68247540 2025.09 , ver.2 1138



0,5

1,0

Size			M12	M16	M20
Tension load					
Steel failure					
Characteristic resistance grade 4.6	NRk,s,C2	[kN]	34	63	98
Partial safety factor	γMs	[-]		2,00	
Characteristic resistance grade 5.8	N <sub>Rk,s,C2</sub>	[kN]	42	79	123
Partial safety factor	γMs	[-]		1,50	
Characteristic resistance grade 8.8	N <sub>Rk,s,C2</sub>	[kN]	67	126	196
Partial safety factor	γMs	[-]		1.50	
Characteristic resistance grade 10.9	N <sub>Rk,s,C2</sub>	[kN]	84	157	245
Partial safety factor	γMs	[-]		1,40	
Characteristic resistance A2-70, A4-70	NRk,s,C2	[kN]	59	110	172
Partial safety factor	γMs	[-]		1.87	
Characteristic resistance A4-80	N <sub>Rk,s,C2</sub>	[kN]	67	126	196
Partial safety factor	γMs	[-]		1,60	
Characteristic resistance 1.4529	N <sub>Rk,s,C2</sub>	[kN]	59	110	172
Partial safety factor	γMs	[-]		1,50	
Characteristic resistance 1.4565	N <sub>Rk,s,C2</sub>		59	110	172
Partial safety factor	γMs	[-]		1.87	
Combined pullout and concrete cone fail		ete C20/25 f	or a working lif		100 years
Characteristic bond resistance					
Temperature T3: 50°C / 70°C	TRk.p.C2	[N/mm <sup>2</sup> ]	3,5	4,0	4,5
Temperature T4: 55°C / 75°C	TRk.p.C2	[N/mm <sup>2</sup> ]	3,3	3,8	4,4
Installation safety factor	γinst	[-]	•	1,0	•
Dry and wet concrete, Flooded hole	γinst	[-]		1,0	
Dustless drilling – Flooded hole	γinst	[-]		1,2	
Shear load					
Steel failure without lever arm					
Characteristic resistance grade 4.6	V <sub>Rk,s,C2</sub>	[kN]	13	18	28
Partial safety factor	V RK,S,C2 γMs	[-]	10	1,67	20
Characteristic resistance grade 5.8	V <sub>Rk,s,C2</sub>	[kN]	16	22	35
Partial safety factor	V Rk,s,C2 γMs	[-]	10	1,25	- 55
Characteristic resistance grade 8.8	V <sub>Rk,s,C2</sub>	[kN]	25	36	56
Partial safety factor	ν κκ,s,υ2 γMs	[-]	20	1,25	- 50
Characteristic resistance grade 10.9	VRk,s,C2	[kN]	32	45	70
Partial safety factor	γκκ,s,02 γMs	[-]	32	1,50	70
Characteristic resistance A2-70, A4-70	V <sub>Rk,s,C2</sub>	[kN]	22	31	49
Partial safety factor	VRk,s,C2 γMs	[-]	££	1.56	45
Characteristic resistance A4-80	V <sub>Rk,s,C2</sub>	[kN]	25	36	56
Partial safety factor	VRk,s,C2 γMs	[-]	20	1,33	
Characteristic resistance 1.4529	V <sub>Rk,s,C2</sub>	[kN]	22	31	49
Partial safety factor		**	22	1,25	43
Characteristic resistance 1.4565	γMs Vol 02		22	31	49
Partial safety factor	V <sub>Rk,s,C2</sub>	[-]		1,56	43
Characteristic shear load resistance V <sub>Rk,s,e</sub>	γMs in the Table		e multiplied by fo		actor for bot
Characteristic shedi ludu resistdire VRk,s,e	alvanized co	mmercial sta	e mulupileu by it indard rods	mowing reduction i	actor for not-
بو Reduction factor for hot-dip galvanized rods		[-]	0,46	0,61	0,61
			0,40	0,5	0,01
Factor for annular gap without filling gap	αgap	[-]		11.5	

Table C20: Displacement under tensile and shear load - seismic category C2 of threaded rod

Size		M12	M16	M20
δN,C2(50%)	[mm]	0,20	0,40	0,77
δN,C2(100%)	[mm]	0,76	0,74	1,68
δv,C2(50%)	[mm]	5,29	4,12	4,94
ôV,C2(100%)	[mm]	10,20	9,05	10,99

The anchor shall be used with minimum rupture elongation after fracture  $A_5 \ge 9\%$ .

Sika AnchorFix®-3030	
Performances Hammer drilling, Dustless drilling Seismic performance category C2 of threaded rod	Annex C 14

#### **Déclaration de Performances**



## Characteristic resistance to combined pull-out and concrete failure $\tau_{Rk,fi}(\theta)$ under fire exposure for threaded rods for hammer or dustless drilling

The characteristic resistance to combined pull-out and concrete failure under fire  $\tau_{Rk,fi,p}(\theta)$  shall be determined according to following equation:

$$\tau_{Rk,fi,p}(\theta) = k_{fi,p}(\theta) \cdot \tau_{Rk,cr}$$

where:

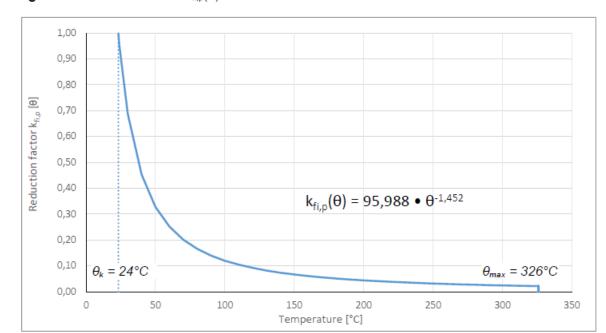
$$k_{\text{fi,p}}(\theta) = 1$$
 for  $\theta < \theta_k$   
 $k_{\text{fi,p}}(\theta) = 95,988 \cdot \theta^{-1,452} \le 1$  for  $\theta \le \theta_{\text{max}}$   
 $k_{\text{fi,p}}(\theta) = 0$  for  $\theta > \theta_{\text{max}}$ 

 $\theta_k = 21^{\circ}C$  $\theta_{max} = 326^{\circ}C$ 

τ<sub>Rk,fi,p</sub> = characteristic bond resistance for cracked concrete under fire exposure tor given temperature (θ)

 $\tau_{Rk,cr}$  = characteristic bond resistance for cracked concrete for concrete strength class C20/25  $k_{f,p}(\theta)$  = reduction factor for bond resistance under fire conditions

Figure C1: Reduction factor  $k_{fi,p}(\theta)$ 



Sika AnchorFix®-3030	
Performances Bond resistance under fire conditions	Annex C 15

**Déclaration de Performances** 



**Table C21:** Steel failure - Characteristic resistance under tension load under fire conditions for threaded rod

Size			M8	M10	M12	M16	M20	M24	M27	M30
	NRk,s,fi(30)	[kN]	0,37	0,87	1,69	3,14	4,90	7,06	9,18	11,22
Steel grade:	N <sub>Rk,s,fi(60)</sub>	[kN]	0,33	0,75	1,26	2,36	3,68	5,30	6,89	8,42
4.6; 5.8; 8.8; 10.9	N <sub>Rk,s,fi(90)</sub>	[kN]	0,26	0,58	1,10	2,04	3,19	4,59	5,97	7,29
	NRk,s,fi(120)	[kN]	0,18	0,46	0,84	1,57	2,45	3,53	4,59	5,61
Stainless steel grade:	$N_{Rk,s,fi(30)}$	[kN]	0,73	1,45	2,53	4,71	7,35	10,59	13,77	16,83
A2-70; A4-70; A4-80	N <sub>Rk,s,fi(60)</sub>	[kN]	0,59	1,16	2,11	3,93	6,13	8,83	11,48	14,03
High corrosion resistant steel grade:	NRk,s,fi(90)	[kN]	0,44	0,93	1,69	3,14	4,90	7,06	9,18	11,22
1.4529; 1.4565	N <sub>Rk,s,fi</sub> (120)	[kN]	0,37	0,81	1,35	2,51	3,92	5,65	7,34	8,98

**Table C22:** Steel failure - Characteristic resistance under tension load under fire conditions for rebar

Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Rebar BSt 500 S	N <sub>Rk,s,fi(30)</sub>	[kN]	0,50	1,18	2,26	4,02	6,28	9,82	16,08
	NRk,s,fi(60)	[kN]	0,45	1,02	1,70	3,02	4,71	7,36	12,06
	N <sub>Rk,s,fi(90)</sub>	[kN]	0,35	0,79	1,47	2,61	4,08	6,38	10,45
	N <sub>Rk,s,fi</sub> (120)	[kN]	0,25	0,63	1,13	2,01	3,14	4,91	8,04

**Table C23:** Steel failure - Characteristic resistance under shear load under fire conditions for threaded rod

Size			M8	M10	M12	M16	M20	M24	M27	M30
	V <sub>Rk,s,fi(30)</sub>	[kN]	0,37	0,87	1,69	3,14	4,90	7,06	9,18	11,22
	V <sub>Rk,s,fi(60)</sub>	[kN]	0,33	0,75	1,26	2,36	3,68	5,30	6,89	8,42
	VRk,s,fi(90)	[kN]	0,26	0,58	1,10	2,04	3,19	4,59	5,97	7,29
Steel grade: 4.6; 5.8; 8.8; 10.9	V <sub>Rk,s,fi(120)</sub>	[kN]	0,18	0,46	0,84	1,57	2,45	3,53	4,59	5,61
	Mo <sub>Rk,s,fi(30)</sub>	[N.m]	0,4	1,1	2,6	6,7	13,0	22,5	33,3	45,0
	M <sup>o</sup> Rk,s,fi(60)	[N.m]	0,3	1,0	2,0	5,0	9,7	16,8	25,0	33,7
	Mo <sub>Rk,s,fi(90)</sub>	[N.m]	0,3	0,7	1,7	4,3	8,4	14,6	21,6	29,2
	Mo <sub>Rk,s,fi(120)</sub>	[N.m]	0,2	0,6	1,3	3,3	6,5	11,2	16,6	22,5
	VRk,s,fi(30)	[kN]	0,73	1,45	2,53	4,71	7,35	10,59	13,77	16,83
	$V_{Rk,s,fi(60)}$	[kN]	0,59	1,16	2,11	3,93	6,13	8,83	11,48	14,03
Stainless steel grade:	$V_{Rk,s,fi(90)}$	[kN]	0,44	0,93	1,69	3,14	4,90	7,06	9,18	11,22
A2-70; A4-70; A4-80	V <sub>Rk,s,fi(120)</sub>	[kN]	0,37	0,81	1,35	2,51	3,92	5,65	7,34	8,98
High corrosion resistant steel grade:	Mo <sub>Rk,s,fi(30)</sub>	[N.m]	0,7	1,9	3,9	10,0	19,5	33,7	49,9	67,5
1.4529; 1.4565	Mo <sub>Rk,s,fi(60)</sub>	[N.m]	0,6	1,5	3,3	8,3	16,2	28,1	41,6	56,2
	Mo <sub>Rk,s,fi(90)</sub>	[N.m]	0,4	1,2	2,6	6,7	13,0	22,5	33,3	45,0
	M <sup>o</sup> Rk,s,fi(120)	[N.m]	0,4	1,0	2,1	5,3	10,4	18,0	26,6	36,0

**Table C24:** Steel failure - Characteristic resistance under shear load under fire conditions for rebar

Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
	V <sub>Rk,s,fi(30)</sub>	[kN]	0,50	1,18	2,26	4,02	6,28	9,82	16,08
1	VRk,s,fi(60)	[kN]	0,45	1,02	1,70	3,02	4,71	7,36	12,06
	V <sub>Rk,s,fi(90)</sub>	[kN]	0,35	0,79	1,47	2,61	4,08	6,38	10,45
	$V_{Rk,s,fi(120)}$	[kN]	0,25	0,63	1,13	2,01	3,14	4,91	8,04
	M <sup>o</sup> Rk,s,fi(30)	[N.m]	0,6	1,8	4,1	9,7	18,9	36,8	77,2
	Mo <sub>Rk,s,fi(60)</sub>	[N.m]	0,5	1,5	3,1	7,2	14,1	27,6	57,9
	Mo <sub>Rk,s,fi(90)</sub>	[N.m]	0,4	1,2	2,6	6,3	12,3	23,9	50,2
	M <sup>o</sup> Rk,s,fi(120)		0,3	0,9	2,0	4,8	9,4	18,4	38,6

Sika AnchorFix®-3030	
Performances Bond resistance under fire conditions	Annex C 16



#### Specifications of intended use

#### Anchorages subject to:

- Static and quasi-static load:
  - threaded rod
  - threaded socket
  - rebar
- Seismic actions category C1 (max w = 0,5 mm):
  - threaded rod size M8, M10, M12, M16, M20, M24, M27, M30
  - rebar size Ø10, Ø12, Ø16, Ø20, Ø24, Ø25, Ø32
- Seismic actions category C2 (max w = 0,8 mm):
  - threaded rod size M12, M16, M20

#### Base materials

- Cracked and uncracked concrete
- Reinforced or unreinforced normal weight concrete without fibres of strength class C20/25 at minimum and C50/60 at maximum according EN 206:2013 + A2:2021.

#### Temperature range:

- T3: -40°C to +70°C (max. short. term temperature +70°C and max. long term temperature +50°C)
- T4: -40°C to +75°C (max. short. term temperature +75°C and max. long term temperature +55°C)

#### Use conditions (Environmental conditions)

- · Structures subject to dry, internal conditions (all materials)
- For all other conditions according to EN 1993-1-4 corresponding to corrosion resistance class:
  - Stainless steel A2 according to Annex A 4, Table A1: CRC II
  - Stainless steel A4 according to Annex A 4, Table A1: CRC III
  - High corrosion resistance steel HCR according to Annex A 4, Table A1: CRC V

#### Concrete conditions:

- 11 installation in dry or wet (water saturated) concrete and use in service in dry or wet concrete.
- I2 installation in water-filled (not sea water) and use in service in dry or wet concrete

#### Design:

- The anchorages are designed in accordance with the EN 1992-4 under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored.
   The position of the anchor is indicated on the design drawings.
- Anchorages under seismic actions (cracked concrete) are designed in accordance with EN 1992-4.
- · Anchorages under fire exposure are designed in accordance with EOTA TR 082.

#### Installation:

- Hole drilling by hammer drilling, dustless drilling or diamond core drilling mode.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the
  person responsible for technical matters of the site.

#### Installation direction:

• D3 – downward and horizontal and upwards (e.g. overhead) installation

Sika AnchorFix®-3030	
Intended use Specifications	Annex B 1

#### Déclaration de Performances



#### 7 DOCUMENTATION TECHNIQUE APPROPRIEE ET/OU DOCUMENTATION TECHNIQUE **SPECIFIQUE**

Les performances du produit identifié ci-dessus sont conformes aux performances déclarées. Conformément au règlement (UE) no 305/2011, la présente déclaration des performances est établie sous la seule responsabilité du fabricant mentionné ci-dessus.

Signé pour le fabricant et en son nom par :

Nom : Tetyana Kuryatnyk Fonction: Ingénieur Produits

Le Bourget, le 13/09/2025

Nom: Laurent Galloux Fonction: Directeur Général

Date et lieu: Le Bourget, le 24/10/2025



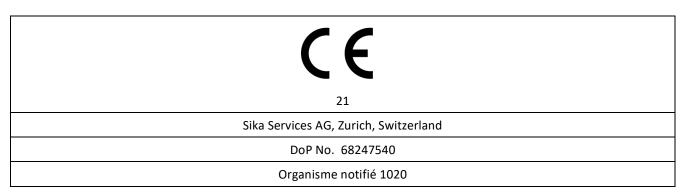


End of information as required by Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC Text with EEA relevance

#### Autre DECLARATION de PERFORMANCES relative au Sika AnchorFix-3030

Nom du Produit	Evaluation Technique Européenne (ETE)	N° DoP
Sika AnchorFix®-3030	ETA 17/0693 du 06/05/2024	62770367

## MARQUAGE CE COMPLET





**Table C1:** Design method EN 1992-4 Steel failure - Characteristic values of resistance to tension load of threaded rod

Size			M8	M10	M12	M16	M20	M24	M27	M30	
Steel grade 4.6	$N_{Rk,s}$	[kN]	15	23	34	63	98	141	184	224	
Partial safety factor	γMs	[-]				2,	00				
Steel grade 5.8	$N_{Rk,s}$	[kN]	18	29	42	79	123	177	230	281	
Partial safety factor	γMs	[-]				1,	50				
Steel grade 8.8	$N_{Rk,s}$	[kN]	29	46	67	126	196	282	367	449	
Partial safety factor	γMs	[-]	1,50								
Steel grade 10.9	$N_{Rk,s}$	[kN]	37	58	84	157	245	353	459	561	
Partial safety factor	γMs	[-]				1,	40				
Stainless steel grade A2-70, A4-70	$N_{Rk,s}$	[kN]	26	41	59	110	172	247	321	393	
Partial safety factor	γMs	[-]				1,	87				
Stainless steel grade A4-80	$N_{Rk,s}$	[kN]	29	46	67	126	196	282	367	449	
Partial safety factor	γMs	[-]				1,	60				
Stainless steel grade 1.4529	$N_{Rk,s}$	[kN]	26	41	59	110	172	247	321	393	
Partial safety factor	γMs	[-]	1,50								
Stainless steel grade 1.4565	$N_{Rk,s}$	[kN]	26	41	59	110	172	247	321	393	
Partial safety factor	γMs	[-]	1,87								

**Table C2**: Design method EN 1992-4 Steel failure - Characteristic values of resistance to tension load of threaded socket

Steel failure - Characteristic resista	nce											
Size			M6	M8	M10	M12	M16	M20				
Steel grade 4.6	$N_{Rk,s}$	[kN]	8	15	23	34	63	98				
Partial safety factor	γMs	[-]	2,00									
Steel grade 5.8	$N_{Rk,s}$	[kN]	10	18	29	42	79	123				
Partial safety factor	γMs	[-]	1,50									
Steel grade 8.8	$N_{Rk,s}$	[kN]	16	29	46	67	126	196				
Partial safety factor	γMs	[-]	1,50									
Steel grade 10.9	$N_{Rk,s}$	[kN]	20	37	58	84	157	245				
Partial safety factor	γMs	[-]			1,	40						
Stainless steel grade A2-70, A4-70	$N_{Rk,s}$	[kN]	14	26	41	59	110	172				
Partial safety factor	γMs	[-]			1,	87						
Stainless steel grade A4-80	$N_{Rk,s}$	[kN]	16	29	46	67	126	196				
Partial safety factor	γMs	[-]			1,	60						
Stainless steel grade 1.4529	$N_{Rk,s}$	[kN]	14	26	41	59	110	172				
Partial safety factor	γMs	[-]	1,50									
Stainless steel grade 1.4565	$N_{Rk,s}$	[kN]	14	26	41	59	110	172				
Partial safety factor	γMs	[-]			1,	87	·	·				

**Table C3:** Design method EN 1992-4 Steel failure - Characteristic values of resistance to tension load of rebar

Steel failure – Characteristic resistance										
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32	
Rebar BSt 500 S	$N_{Rk,s}$	[kN]	28	43	62	111	173	270	442	
Partial safety factor	γMs	[-]				1,4				

Sika AnchorFix®-3030	
Performances Steel failure characteristic resistance	Annex C 1



Table C4: Design method EN 1992-4

Characteristic values of resistance to tension load of threaded rod

## Hammer drilling, Dustless drilling

Combined pullout and concrete cone f	unule	III COIICIE							_		
Size			M8	M10	M12	M16	M20	M24	M27	M30	
Characteristic bond resistance in und									,		
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]		14,8		12,2	12,2	12,2	10,7	9,6	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	16,6	14,3	14,3	11,8	11,8	11,8	10,4	9,3	
Installation safety factor											
Dry, wet concrete	γinst	[-]	1,0								
Hammer drilling – Flooded hole	γinst	[-]					,0				
Dustless drilling – Flooded hole	γinst					1	,2				
Characteristic bond resistance in cra											
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	9,7	9,7	9,7	9,5	9,1	8,8	6,2	6,1	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	9,4	9,4	9,4	9,2	8,8	8,5	6,0	5,9	
Installation safety factor											
Dry, wet concrete	γinst	[-]	1,0								
Hammer drilling – Flooded hole	γinst	[-]	1,0								
Dustless drilling – Flooded hole	γinst	[-]	1,2								
Factor for influence of T3: 50°C / 70°C			0,72								
sustained load for a	$\Psi^0_{\text{sus}}$	[-]	1,00								
working life 50 years											
C25/30							02				
C30/37						1,					
Factor for concrete C35/45	Ψс	[-]					06				
C40/50	•	.,				1,					
C45/55							08				
C50/60						1,	09				
Concrete cone failure Factor for concrete cone failure											
factor for concrete cone failure for uncracked concrete	Kucr,N					1	1				
Factor for concrete cone failure	k	[-]	7.7								
for cracked concrete	k <sub>cr,N</sub>		7,7								
Edge distance	C <sub>cr,N</sub>	[mm]				1,5	h <sub>ef</sub>				
Splitting failure											
Size			M8	M10	M12	M16	M20	M24	M27	M30	
Edge distance	Ccr,sp	[mm]				2 •	hef				
Spacing	Scr,sp	[mm]				2 • 0	Ccr,sp				

Sika AnchorFix®-3030	
Performances	Annex C 2
Hammer drilling, Dustless drilling	
Characteristic resistance for tension loads - threaded rod	

#### **Déclaration de Performances**



**Table C5:** Design method EN 1992-4 Characteristic values of resistance to tension load of threaded socket

## Hammer drilling, Dustless drilling

Combined pullout and concrete cone to Size			M6	M8	M10	M12	M16	M20	
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30	
Characteristic bond resistance in un	ara aka	d conore		IVITZ	IVITO	IVIZU	IVIZ4	IVISU	
				44.0	40.0	40.0	40.0	0.0	
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	14,8	14,8	12,2	12,2	12,2	9,6	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	14,3	14,3	11,8	11,8	11,8	9,3	
Installation safety factor		F 1			- 1	0			
Dry, wet concrete	γinst					,0			
Hammer drilling – Flooded hole	γinst					,0			
Dustless drilling – Flooded hole	γinst				1	,2			
Characteristic bond resistance in cra			0.7	0.7	0.5	0.4	0.0	0.4	
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	9,7	9,7	9,5	9,1	8,8	6,1	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	9,4	9,4	9,2	8,8	8,5	5,9	
Installation safety factor		r 1			4	0			
Dry, wet concrete	γinst					,0			
Hammer drilling – Flooded hole Dustless drilling – Flooded hole	γinst	[-] [-]	1,0						
	γinst	[-]	1,2						
Factor for influence of T3: 50°C / 70°C sustained load for a		[-]			0,	72			
working life 50 years T4: 55°C / 75°C	Ψ <sup>0</sup> sus	[-]	1,00						
C25/30						02			
C30/37						02 04			
C35/45						06			
Factor for concrete C40/50		[-]				07			
C45/55						08			
C50/60						09			
Concrete cone failure					٠,	00			
Factor for concrete cone failure	_								
for uncracked concrete	K <sub>ucr,N</sub>				1	1			
Factor for concrete cone failure .		[-]			7	7			
for cracked concrete	K <sub>cr,N</sub>		7,7						
Edge distance	C <sub>cr,N</sub>	[mm]	1,5h <sub>ef</sub>						
Splitting failure									
Size			M6	M8	M10	M12	M16	M20	
Edge distance	Ccr,sp	[mm]			2 •	hef			
Spacing	Scr.sp	[mm]			2 •	Ccr,sp			

Sika AnchorFix®-3030	
Performances	Annex C 3
Hammer drilling, Dustless drilling	
Characteristic resistance for tension loads - threaded socket	

## **Déclaration de Performances**



**Table C6:** Design method EN 1992-4 Characteristic values of resistance to tension load of rebar

## Hammer drilling, Dustless drilling

Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Characteristic bond resistance in u	ncracke	ed concre	ete						
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	13,3	13,3	13,3	11,7	11,7	11,7	8,1
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	12,9	12,9	12,9	11,3	11,3	11,3	7,8
Installation safety factor									
Hammer drilling - Dry, wet concrete	γinst	[-]				1,0			
Dustless drilling - Dry, wet concrete	γinst	[-]				1,2			
Flooded hole	γinst	[-]				1,2			
Characteristic bond resistance in c	racked	concrete							
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	8,1	11,4	10,7	10,4	9,9	8,6	6,4
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	7,8	11,0	10,3	10,1	9,6	8,4	6,2
Installation safety factor									
Hammer drilling - Dry, wet concrete	γinst	[-]				1,0			
Dustless drilling - Dry, wet concrete	γinst	[-]				1,2			
Flooded hole	γinst	[-]				1,2			
Factor for influence of T3: 50°C / 70° sustained load for a	C Ψ <sup>0</sup> sus	[-]				0,72			
working life 50 years T4: 55°C / 75°	C Ψ sus	[-]				1,00			
C25/3	_					1,02			
C30/3	-		1,04						
Factor for concrete C35/4	IIIa	[-]				1,06			
C40/5	υ.	.,				1,07			
C45/5						1,08			
C50/6	U					1,09			

Concrete cone failure			
Factor for concrete cone failure for uncracked concrete	Kucr,N		11
Factor for concrete cone failure for cracked concrete	k <sub>cr,N</sub>	[-]	7,7
Edge distance	Ccr,N	[mm]	1,5h <sub>ef</sub>

Splitting failure									
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Edge distance	C <sub>cr,sp</sub>	[mm]				2 • h <sub>ef</sub>			
Spacing	S <sub>cr,sp</sub>	[mm]	2 • c <sub>cr,sp</sub>						

Sika AnchorFix®-3030	
Performances	Annex C 4
Hammer drilling, Dustless drilling	
Characteristic resistance for tension loads - rebar	

## **Déclaration de Performances**



Table C7: Design method EN 1992-4

Characteristic values of resistance to tension load of threaded rod

## Diamond core drilling

Diamona core arming											
Combined pullout and concrete cone Size	failure	in concre	te C20/ M8	/25 M10	M12	M16	M20	M24	M27	M30	
					_			_		IVISU	
Characteristic bond resistance in u										0.0	
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]							10,7	9,6	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	15,6	14,3	14,3	11,8	11,8	11,8	10,4	9,3	
Installation safety factor							^				
Dry, wet concrete	γinst						,0				
Flooded hole	γinst	[-]					,2				
Characteristic bond resistance in c						_	_				
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]		9,7	9,7	9,5	8,7	8,7	6,2	6,1	
Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ]	9,4	9,4	9,4	9,2	8,4	8,4	6,0	5,9	
Characteristic bond resistance in c						_					
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]		8,6	8,6	8,6	8,2	8,2	6,2	5,5	
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	8,3	8,3	8,3	8,3	7,9	7,9	6,0	5,3	
Installation safety factor											
Dry, wet concrete	γinst	[-]					,0				
Flooded hole	γinst	[-]				1	,2				
Factor for influence of T3: 50°C / 70°	С		0,76								
sustained load for a	W <sup>0</sup> €…€	[-]	· · · · · · · · · · · · · · · · · · ·								
working life 50 years T4: 55°C / 75°							76				
C25/3			ļ				02				
C30/3			1,04								
Factor for concrete C35/4	111	[-]	1,06								
C40/5		ויו		1,07							
C45/5			1,08								
C50/6	0		<u> </u>			1,	09				
Concrete cone failure											
Factor for concrete cone failure	k <sub>ucr,N</sub>		l			1	1				
for uncracked concrete	Nuci, N	[-]					•				
Factor for concrete cone failure	Kcr.N	1.1	7,7								
for cracked concrete			1,5h <sub>ef</sub>								
Edge distance	C <sub>cr,N</sub>	[mm]				1,5	h <sub>ef</sub>				
Splitting failure											
Size			M8	M10	M12	_	M20	M24	M27	M30	
Edge distance	C <sub>cr,sp</sub>	[mm]					h <sub>ef</sub>				
Spacing	S <sub>cr,sp</sub>	[mm]				2 •	C <sub>cr,sp</sub>				

Sika AnchorFix®-3030	
Performances	Annex C 5
Diamond core drilling	
Characteristic resistance for tension loads - threaded rod	

## **Déclaration de Performances**



Table C8: Design method EN 1992-4

Characteristic values of resistance to tension load of threaded socket

## Diamond core drilling

Size			M6	M8	M10	M12	M16	M20	
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30	
Characteristic bond resistance in	uncracke	d concre							
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	14,8	14,8	12,2	12,2	12,2	9,6	
Temperature T4: 55°C / 75°C	TRk,ucr	E 1.1.	14,3	14,3	11,8	11,8	11,8	9,3	
Installation safety factor	-111,00		, -	1		1 - 1	,-	-,-	
Dry, wet concrete	γinst	[-]			1	.0			
Flooded hole	γinst				1	,2			
Characteristic bond resistance in	cracked o	concrete t	for a wor	king life	of 50 yea	rs			
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	9,7	9,7	9,5	8,7	8,7	6,1	
Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ]	9,4	9,4	9,2	8,4	8,4	5,9	
Characteristic bond resistance in			for a wor	king life	of 100 ye	ars	,		
Temperature T3: 50°C / 70°C		[N/mm <sup>2</sup> ]	8,6	8,6	8,6	8,2	8,2	5,5	
Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ]	8,3	8,3	8,3	7,9	7,9	5,3	
Installation safety factor									
Dry, wet concrete	γinst	[-]	1,0						
Flooded hole	γinst	[-]			1	,2			
Factor for influence of T3: 50°C / 70	)°C		0,76						
sustained load for a	$W^0_{sus}$	[-]							
working life 50 years T4: 55°C / 75						76			
C25						02			
C30.			1,04						
Factor for concrete C35		[-]	1,06						
C40	/50 .	.,	1,07						
C45						08			
C50.	/60				1,	09			
Concrete cone failure									
Factor for concrete cone failure	k <sub>ucr.N</sub>				1	1			
for uncracked concrete		[-]							
Factor for concrete cone failure	k <sub>cr,N</sub>		7,7						
for cracked concrete			1,5hef						
Edge distance	Ccr,N	[mm]			1,5	Πef			
Splitting failure			140	140	8440	8440	B440	1400	
Size		f1	M6	M8	M10	M12	M16	M20	
Edge distance	C <sub>cr,sp</sub>	[mm]				h <sub>ef</sub>			
Spacing	S <sub>cr,sp</sub>	[mm]			2 •	C <sub>cr,sp</sub>			

Sika AnchorFix®-3030	
Performances	Annex C 6
Diamond core drilling	
Characteristic resistance for tension loads - threaded socket	

**Déclaration de Performances** 



**Table C9:** Design method EN 1992-4

Characteristic values of resistance to tension load of rebar

	Characteristic values of resistance to tension load of rebar
Diamond co	ore drilling

Combined pullout and concrete cone fa	ilure i	n concret	e C20/2	5 for a v	vorking	life of 50	) years a	and 100	years		
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32		
Characteristic bond resistance in un	cracke	ed concre	ete								
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	13,3	12,3	12,3	11,7	11,0	10,9	8,1		
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	12,9 11,9 11,9			11,9	10,7	10,5	7,8		
Installation safety factor											
Dry, wet concrete	γinst	[-]				1,0					
Flooded hole	γinst	[-]				1,2					
Characteristic bond resistance in cra	cked	concrete	for a w	orking l	ife of 50	years					
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	8,1	8,3	8,1	8,1	7,3	6,6	6,4		
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	7,8	8,0	7,8	7,8	7,1	6,4	6,2		
Characteristic bond resistance in cra	concrete	for a w	orking l	ife of 10	0 years						
Temperature T3: 50°C / 70°C	TRk,ucr	[N/mm <sup>2</sup> ]	6,4	7,2	7,2	7,2	6,9	6,3	5,8		
Temperature T4: 55°C / 75°C	TRk,ucr	[N/mm <sup>2</sup> ]	6,2	7,0	7,0	7,0	6,7	6,1	5,6		
Installation safety factor											
Dry, wet concrete	γinst	[-]	1,0				1,0				
Flooded hole	γinst	[-]				1,2					
Factor for influence of T3: 50°C / 70°C						0,76					
sustained load for a working life 50 years T4: 55°C / 75°C	Ψ <sup>0</sup> sus	[-]	0,76								
C25/30 C30/37 - C35/45			1,02 1,04								
Factor for concrete C40/50 C45/55 C50/60		[-]				1,06 1,07 1,08 1,09					

Concrete cone failure			
Factor for concrete cone failure for uncracked concrete	k <sub>ucr,N</sub>	[-]	11
Factor for concrete cone failure for cracked concrete	k <sub>cr,N</sub>		7,7
Edge distance	C <sub>cr,N</sub>	[mm]	1,5h <sub>ef</sub>

Splitting failure									
Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Edge distance	C <sub>cr,sp</sub>	[mm]	2 • h <sub>ef</sub>						
Spacing	S <sub>cr,sp</sub>	[mm]	2 • c <sub>cr,sp</sub>						

Sika AnchorFix®-3030	
Performances	Annex C 7
Diamond core drilling	
Characteristic resistance for tension loads - rebar	



**Table C10:** Design method EN 1992-4 Characteristic values of resistance to shear load of threaded rod

Partial safety factor         γ <sub>Ms</sub> [-]         1,67           Steel grade 5.8         V <sub>Rk,s</sub> [kN]         11         17         25         47         74         106         138         168           Partial safety factor         γ <sub>Ms</sub> [-]         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25	Size			M8	M10	M12	M16	M20	M24	M27	M30
Partial safety factor         γ <sub>Ms</sub> [-]         1,67           Steel grade 5.8         V <sub>Rk,s</sub> [kN]         11         17         25         47         74         106         138         168           Partial safety factor         γ <sub>Ms</sub> [-]         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,24         161         196         1,25         1,25         1,25         1,25	Steel grade 4.6	$V_{Rk,s}$	[kN]	9	14	20	38	59	85	110	135
Partial safety factor         γMs         [-]         1,25           Steel grade 8.8         V <sub>Rk,s</sub> [kN]         15         23         34         63         98         141         184         224           Partial safety factor         γMs,s         [F]         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,25         1,26         1,24         161         196         1,24         161         196         1,24         161         196         1,24         161         196         1,24         161         196         1,25         1,25         1,2	Partial safety factor						1,	67			
Steel grade 8.8   VRk,s   [kN]   15   23   34   63   98   141   184   224	Steel grade 5.8	$V_{Rk,s}$	[kN]	11	17	25	47	74	106	138	168
Partial safety factor       γ <sub>Ms</sub> [-]       1,25         Steel grade 10.9       V <sub>Rk,s</sub> [kN]       18       29       42       79       123       177       230       281         Partial safety factor       γ <sub>Ms</sub> [-]       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,5       1,2       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,3       1,	Partial safety factor	γMs	[-]				1,	25			
Steel grade 10.9   VRk,s   [kN]   18   29   42   79   123   177   230   281	Steel grade 8.8	$V_{Rk,s}$	[kN]	15	23	34	63	98	141	184	224
Partial safety factor       γ <sub>Ms</sub> [-]       1,5         Stainless steel grade A2-70, A4-70       V <sub>Rk,s</sub> [kN]       13       20       30       55       86       124       161       196         Partial safety factor       γ <sub>Ms,s</sub> [kN]       15       23       34       63       98       141       184       224         Partial safety factor       γ <sub>Ms</sub> [-]       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       1,33       <	Partial safety factor	γMs	[-]				1,	25			
Stainless steel grade A2-70, A4-70   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Partial safety factor   γ <sub>Ms</sub>   [-]   1,56     Stainless steel grade A4-80   V <sub>Rk,s</sub>   [kN]   15   23   34   63   98   141   184   224     Partial safety factor   γ <sub>Ms</sub>   [-]   1,33     Stainless steel grade 1.4529   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Partial safety factor   γ <sub>Ms</sub>   [-]   1,25     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   [kN]   13   20   30   55   86   124   161   196     Stainless steel grade 1.4565   V <sub>Rk,s</sub>   V <sub></sub>	Steel grade 10.9	V <sub>Rk,s</sub>	[kN]	18	29	42	79	123	177	230	281
Partial safety factor         γ <sub>Ms</sub> [-]         1,56           Stainless steel grade A4-80         V <sub>Rk,s</sub> [kN]         15         23         34         63         98         141         184         224           Partial safety factor         γ <sub>Ms</sub> [-]         1,33           Stainless steel grade 1.4529         V <sub>Rk,s</sub> [kN]         13         20         30         55         86         124         161         196           Partial safety factor         γ <sub>Ms</sub> [-]         1,25           Stainless steel grade 1.4565         V <sub>Rk,s</sub> [kN]         13         20         30         55         86         124         161         196	Partial safety factor	γMs	[-]				1	,5			
Stainless steel grade A4-80     V <sub>Rk,s</sub> [kN]     15     23     34     63     98     141     184     224       Partial safety factor     γ <sub>Ms</sub> [-]     1,33       Stainless steel grade 1.4529     V <sub>Rk,s</sub> [kN]     13     20     30     55     86     124     161     196       Partial safety factor     γ <sub>Ms</sub> [-]     1,25       Stainless steel grade 1.4565     V <sub>Rk,s</sub> [kN]     13     20     30     55     86     124     161     196	Stainless steel grade A2-70, A4-70	$V_{Rk,s}$	[kN]	13	20	30	55	86	124	161	196
Partial safety factor       γMs       [-]       1,33         Stainless steel grade 1.4529       VRk,s       [kN]       13       20       30       55       86       124       161       196         Partial safety factor       γMs       [-]       1,25         Stainless steel grade 1.4565       VRk,s       [kN]       13       20       30       55       86       124       161       196	Partial safety factor	γMs	[-]				1,	56			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Stainless steel grade A4-80	$V_{Rk,s}$	[kN]	15	23	34	63	98	141	184	224
Partial safety factor         γ <sub>Ms</sub> [-]         1,25           Stainless steel grade 1.4565         V <sub>Rk,s</sub> [kN]         13         20         30         55         86         124         161         196	Partial safety factor	γMs	[-]				1,	33			
Stainless steel grade 1.4565 VRk,s [kN] 13 20 30 55 86 124 161 196	Stainless steel grade 1.4529	$V_{Rk,s}$	[kN]	13	20	30	55	86	124	161	196
	Partial safety factor	γMs	[-]				1,	25			
Partial safety factor γ <sub>Ms</sub> [-] 1,56	Stainless steel grade 1.4565	$V_{Rk,s}$	[kN]	13	20	30	55	86	124	161	196
	Partial safety factor	γMs	[-]				1,	56			

Steel failure with lever arm									
Size		M8	M10	M12	M16	M20	M24	M27	M30
Steel grade 4.6	M <sup>o</sup> Rk,s [N.m]	15	30	52	133	260	449	666	900
Partial safety factor	γMs [-]				1,	67			
Steel grade 5.8	M° <sub>Rk,s</sub> [N.m]	19	37	66	166	325	561	832	1125
Partial safety factor	γMs [-]				1,	25			
Steel grade 8.8	Mº <sub>Rk,s</sub> [N.m]	30	60	105	266	519	898	1332	1799
Partial safety factor	γMs [-]				1	,25			
Steel grade 10.9	Mº <sub>Rk,s</sub> [N.m]	37	75	131	333	649	1123	1664	2249
Partial safety factor	γ <sub>Ms</sub> [-]				1,	,50			
Stainless steel grade A2-70, A4-70	Mº <sub>Rk,s</sub> [N.m]	26	52	92	233	454	786	1165	1574
Partial safety factor	γ <sub>Ms</sub> [-]				1,	,56			
Stainless steel grade A4-80	Mº <sub>Rk,s</sub> [N.m]	30	60	105	266	519	898	1332	1799
Partial safety factor	γMs [-]				1,	,33			
Stainless steel grade 1.4529	M° <sub>Rk,s</sub> [N.m]	26	52	92	233	454	786	1165	1574
Partial safety factor	γMs [-]	1,25							
Stainless steel grade 1.4565	Mº <sub>Rk,s</sub> [N.m]	26	52	92	233	454	786	1165	1574
Partial safety factor	γMs [-]				1	,56			
Concrete pryout failure					·			·	
Factor for resistance to pry-out failure	k <sub>8</sub> [-]					2			

Concrete edge failure										
Size			M8	M10	M12	M16	M20	M24	M27	M30
Outside diameter of fastener d <sub>no</sub>	m	[mm]	8	10	12	16	20	24	27	30
Effective length of fastener	<b>€</b> f	[mm]	min (hef, 8 d <sub>nom</sub> )							

Sika AnchorFix®-3030	
Performances	Annex C 8
Design according to EN 1992-4	
Characteristic resistance for shear loads - threaded rod	



**Table C11:** Design method EN 1992-4 Characteristic values of resistance to shear load of threaded socket

Size			M6	M8	M10	M12	M16	M20		
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30		
Steel grade 4.6	$V_{Rk,s}$	[kN]	5 9 14 20 38 59							
Partial safety factor	γMs	[-]			1,	67				
Steel grade 5.8	$V_{Rk,s}$	[kN]	6	11	17	25	47	74		
Partial safety factor	γMs	[-]			1,	25				
Steel grade 8.8	$V_{Rk,s}$	[kN]	8	15	23	34	63	98		
Partial safety factor	γMs	[-]	1,25							
Steel grade 10.9	$V_{Rk,s}$	[kN]	10	18	29	42	79	123		
Partial safety factor	γMs	[-]			1,	,5				
Stainless steel grade A2-70, A4-70	$V_{Rk,s}$	[kN]	7	13	20	30	55	86		
Partial safety factor	γMs	[-]			1,	56				
Stainless steel grade A4-80	$V_{Rk,s}$	[kN]	8	15	23	34	63	98		
Partial safety factor	γMs	[-]			1,	33				
Stainless steel grade 1.4529	$V_{Rk,s}$	[kN]	7	13	20	30	55	86		
Partial safety factor	γMs	[-]	1,25							
Stainless steel grade 1.4565	$V_{Rk,s}$	[kN]	7	13	20	30	55	86		
Partial safety factor	γMs	[-]			1,	56				

Steel failure with lever arm								
Size		M6	M8	M10	M12	M16	M20	
Nominal external diameter of socket		M10	M12	M16	M20	M24	M30	
Steel grade 4.6	Mº <sub>Rk,s</sub> [N.m	6	15	30	52	133	260	
Partial safety factor	γMs [-]			1,	67			
Steel grade 5.8	Mº <sub>Rk,s</sub> [N.m	8	19	37	66	166	325	
Partial safety factor	γMs [-]			1,	25			
Steel grade 8.8	MºRk,s [N.m	12	30	60	105	266	519	
Partial safety factor	γMs [-]			1,	25			
Steel grade 10.9	Mº <sub>Rk,s</sub> [N.m	15	37	75	131	333	649	
Partial safety factor	γMs [-]		1,50					
Stainless steel grade A2-70, A4-70	Mº <sub>Rk,s</sub> [N.m	11	26	52	92	233	454	
Partial safety factor	γMs [-]			1,	56			
Stainless steel grade A4-80	Mº <sub>Rk,s</sub> [N.m	12	30	60	105	266	519	
Partial safety factor	γMs [-]			1,	33			
Stainless steel grade 1.4529	Mº <sub>Rk,s</sub> [N.m	11	26	52	92	233	454	
Partial safety factor	γMs [-]	1,25						
Stainless steel grade 1.4565	Mº <sub>Rk,s</sub> [N.m	11	26	52	92	233	454	
Partial safety factor	γMs [-]			1,	56			
Concrete pryout failure								
Factor for resistance to pry-out failure	k <sub>8</sub> [-]				2			

Concrete edge failure								
Size			M6	M8	M10	M12	M16	M20
Nominal external diameter of socket			M10	M12	M16	M20	M24	M30
Outside diameter of fastener	dnom	[mm]	10	12	16	20	24	30
Effective length of fastener	l <sub>f</sub>	[mm]	min (h <sub>ef</sub> , 8 d <sub>nom</sub> )					

Sika AnchorFix®-3030	
Performances	Annex C 9
Design according to EN 1992-4	7
Characteristic resistance for shear loads - threaded socket	



## Table C12: Design method EN 1992-4

Characteristic values of resistance to shear load of rebar

Steel failure without lever arm										
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32		
Rebar BSt 500 S	V <sub>Rk,s</sub> [kN]	14	22	31	55	86	135	221		
Partial safety factor	γMs [-]	1,5								
Characteristic resistance of gr	Characteristic resistance of group of fasteners									
Ductility factor	V 1									

Steel failure with lever arm								
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Rebar BSt 500 S	M° <sub>Rk,s</sub> [N.m]	33	65	112	265	518	1013	2122
Partial safety factor	γMs [-]				1,5			
Concrete pryout failure								
Factor for resistance to pry-out failure	ks [-]		·		2			

Concrete edge failure								
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Outside diameter of fastener	d <sub>nom</sub> [mm]	8	10	12	16	20	25	32
Effective length of fastener	ել [mm]			min	(h <sub>ef</sub> , 8 d	nom)		

Sika AnchorFix®-3030	
Performances Design according to EN 1992-4	Annex C 10
Characteristic resistance for shear loads - rebar	

#### **Déclaration de Performances**



**Table C13:** Displacement of threaded rod under tension and shear load Hammer drilling, dustless drilling

rammer arming, adoleses arming										
Size		M8   M10   M12   M16   M2		M20	M24	M27	M30			
Tensio	n load									
Uncracked concrete										
ŌNO	[mm/kN]	0,03	0,02	0,02	0,02	0,01	0,01	0,01	0,01	
ŌN∞	[mm/kN]	0,05	0,04	0,03	0,03	0,02	0,02	0,01	0,01	
Cracke	ed concrete	:								
ŌΝO	[mm/kN]	0,05	0,04	0,03	0,03	0,02	0,02	0,02	0,02	
ŌN∞	[mm/kN]	0,35	0,21	0,14	0,12	0,08	0,07	0,07	0,07	
Shear	load									
δvo	[mm/kN]	0,71	0,45	0,31	0,17	0,11	0,07	0,06	0,05	
δν∞	[mm/kN]	1,06	0,67	0,46	0,25	0,16	0,11	0,08	0,07	

**Table C14:** Displacement of threaded rod under tension and shear load Diamond core drilling

Size		M8	M10	M12	M16	M20	M24	M27	M30	
Tensio	n load									
Uncracked concrete										
ŌΝO	[mm/kN]	0,01	0,01	0,02	0,02	0,02	0,02	0,01	0,02	
ŌN∞	[mm/kN]	0,09	0,07	0,05	0,04	0,03	0,02	0,02	0,02	
Cracke	ed concrete	:								
ŌNO	[mm/kN]	0,03	0,04	0,04	0,04	0,03	0,03	0,04	0,04	
ŌN∞	[mm/kN]	0,33	0,28	0,20	0,14	0,12	0,09	0,09	0,08	
Shear	load									
δνο	[mm/kN]	0,71	0,45	0,31	0,17	0,11	0,07	0,06	0,05	
Ō∨∞	[mm/kN]	1,06	0,67	0,46	0,25	0,16	0,11	0,08	0,07	

**Table C15:** Displacement of rebar under tension and shear load Hammer drilling, dustless drilling

Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32		
Tensio	on load									
Uncracked concrete										
ŌNO	[mm/kN]	0,04	0,03	0,02	0,01	0,01	0,01	0,01		
ŌN∞	[mm/kN]	0,08	0,05	0,04	0,02	0,02	0,01	0,01		
Crack	ed concrete	;								
ŌΝο	[mm/kN]	0,05	0,04	0,03	0,03	0,02	0,02	0,02		
ŌN∞	[mm/kN]	0,35	0,21	0,17	0,11	0,08	0,07	0,06		
Shear	load									
Ōνο	[mm/kN]	0,38	0,24	0,17	0,10	0,06	0,04	0,02		
δν∞	[mm/kN]	0,56	0,36	0,25	0,14	0,09	0,06	0,04		

Table C16: Displacement of rebar under tension and shear load
Diamond drilling

		dannon	a armin	9						
Size		Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32		
Tensio	on load									
Uncra	Uncracked concrete									
ŌΝΟ	[mm/kN]	0,02	0,02	0,02	0,01	0,01	0,01	0,01		
ŌN∞	[mm/kN]	0,09	0,06	0,04	0,03	0,02	0,01	0,01		
Crack	ed concrete	;								
ŌNO	[mm/kN]	0,04	0,03	0,03	0,02	0,02	0,01	0,01		
ŌN∞	[mm/kN]	0,39	0,26	0,18	0,10	0,07	0,04	0,03		
Shear	load									
Ōνο	[mm/kN]	0,38	0,24	0,17	0,10	0,06	0,04	0,02		
δν∞	[mm/kN]	0,56	0,36	0,25	0,14	0,09	0,06	0,04		

Sika AnchorFix®-3030	
Performances Displacements	Annex C 11

## **Déclaration de Performances**



Table C17: Seismic performance category C1 of threaded rod - Hammer drilling, Dustless drilling

Size			M8	M10	M12	M16	M20	M24	M27	M30
Tension load										
Steel failure										
Characteristic resistance grade 4.6	N <sub>Rk,s,C1</sub>	[kN]	15	23	34	63	98	141	184	224
Partial safety factor	γMs	[-]					00			
Characteristic resistance grade 5.8	N <sub>Rk,s,C1</sub>		18	29	42	79	123	177	230	281
Partial safety factor	γMs	[-]		20			50		200	
Characteristic resistance grade 8.8	N <sub>Rk,s,C1</sub>		29	46	67	_	196	282	367	449
Partial safety factor	γMs	[-]			٥.		50	Loz	00.	
Characteristic resistance grade 10.9	N <sub>Rk,s,C1</sub>		37	58	84		245	353	459	561
Partial safety factor	γMs	[-]	- 01	- 00	04		40	000	403	00
Characteristic resistance A2-70, A4-70	N <sub>Rk,s,C1</sub>	[kN]	26	41	59		172	247	321	393
Partial safety factor	γMs	[-]	-20	7.	00		87	241	021	030
Characteristic resistance A4-80	N <sub>Rk,s,C1</sub>		29	46	67		196	282	367	449
Partial safety factor	γMs	[-]	23	40	01		60	202	007	44.
Characteristic resistance 1.4529	N <sub>Rk,s,C1</sub>		26	41	59		172	247	321	393
Partial safety factor	γMs	[-]	-20	71	00		50	241	021	550
Characteristic resistance 1.4565	NRk,s,C1	[kN]	26	41	59	_	172	247	321	393
Partial safety factor	NRK,S,C1 γMs	[-]	20	41	33		87	241	321	330
Combined pullout and concrete cone failu			for a	workin	a life o			d 100	Veare	
Characteristic bond resistance	ile ili colici	ele 020/20	ioi a	WOIKIII	g ille o	1 50 ye	ai S ai	100	year 5	
		FN1/mm21	0.4	0.5	10.0	0.7	7.4	77	E 7	4.0
Temperature T3: 50°C / 70°C Temperature T4: 55°C / 75°C		[N/mm <sup>2</sup> ] [N/mm <sup>2</sup> ]	9,4 9,1	8,5 8,2	10,0 10,0	8,7 8,4	7,4	7,7 7,5	5,7 5,5	4,9
	₹Rk,p,C1	[IN/IIIIIT]	9,1	0,2	10,0	0,4	1,2	7,5	5,5	4,/
Installation safety factor Dry, wet concrete	20.	[]				- 1	.0			
Hammer drilling – Flooded hole	γinst	[-]					,0 .0			
Dustless drilling – Flooded hole	γinst γinst	[-] [-]					.2			
Dusticss drilling - 1 looded floic	rinst	1-1					,2			
Shear load										
Steel failure without lever arm										
Characteristic resistance grade 4.6	VRk,s,C1	[kN]	5	9	13	20	32	28	37	45
Partial safety factor	γMs	[-]				1,	67			
Characteristic resistance grade 5.8	$V_{Rk,s,C1}$	[kN]	7	11	16	26	40	35	46	56
Partial safety factor	γMs	[-]				1,	25		•	
Characteristic resistance grade 8.8	$V_{Rk,s,C1}$	[kN]	11	17	25	41	64	56	73	90
Partial safety factor	γMs	[-]				1,	25			
Characteristic resistance grade 10.9	$V_{Rk,s,C1}$	[kN]	14	22	32	51	80	71	92	113
Partial safety factor	γMs	[-]				1,	50		•	
Characteristic resistance A2-70, A4-70	VRk,s,C1	[kN]	10	15	22	36	56	49	64	79
Partial safety factor	γMs	[-]				1,	56			
Characteristic resistance A4-80	VRk,s,C1	[kN]	11	17	25	41	64	56	73	90
Partial safety factor	γMs	[-]				1,	33		•	
Characteristic resistance 1.4529	V <sub>Rk,s,C1</sub>	[kN]	10	15	22	36	56	49	64	79
Partial safety factor	γMs	[-]					25			
Characteristic resistance 1.4565	V <sub>Rk,s,C1</sub>		10	15	22	36	56	49	64	79
Partial safety factor	γMs	[-]					56			
Characteristic shear load resistance V <sub>Rk,s,eq</sub>			be mu	Itiplied	by follo			n facto	r for ho	t-dir
	Ivanized co				,	3				
Reduction factor for hot-dip galvanized rods	α <sub>v,h-dg,c1</sub>		0,47		0,47	0,54	0,54	0,88	0,88	0,8
Factor for annular gap without filling gap	αgap						,5			
Factor for annular gan with filling gan	(/gap						n			

The anchor shall be used with minimum rupture elongation after fracture  $A_5 \ge 9\%$ .

αgap

Sika AnchorFix®-3030	
Performances	Annex C 12
Hammer drilling, Dustless drilling	
Seismic performance category C1 of threaded rod	

Déclaration de Performances

Factor for annular gap with filling gap



## Table C18: Seismic performance category C1 of rebar - Hammer drilling, Dustless drilling

Size			Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
Tension load								
Steel failure								
Rebar BSt 500 S	NRk,s,C1	[kN]	43	62	111	173	270	442
Partial safety factor	γMs	[-]			1	,4		
Combined pullout and concrete cone fa	ilure in concr	ete C20/25	for a wo	orking life	e of 50 ye	ears and	100 year	s
Characteristic bond resistance								
Temperature T3: 50°C / 70°C	TRk,p,C1	[N/mm <sup>2</sup> ]	9,4	9,8	9,5	8,8	8,0	5,3
Temperature T4: 55°C / 75°C	TRk,p,C1	[N/mm <sup>2</sup> ]	9,1	9,5	9,2	8,5	7,7	5,2
Installation safety factor								
Hammer drilling - Dry, wet concrete	γinst	[-]			1	,0		
Dustless drilling - Dry, wet concrete	γinst	[-]			1	,2		
Flooded hole	γinst	[-]			1	,2		
Shear load								
Steel failure without lever arm								
Rebar BSt 500 S	V <sub>Rk,s,C1</sub>	[kN]	16	23	41	69	67	111
Partial safety factor	γMs	[-]		•	1	,5		

Sika AnchorFix®-3030	
Performances	Annex C 13
Hammer drilling, Dustless drilling	
Seismic performance category C1 of rebar	

## **Déclaration de Performances**

Factor for annular gap without filling gap

Factor for annular gap with filling gap

Sika AnchorFix®-3030 68247540 2025.09 , ver.2 1138



0,5

1,0

Size			M12	M16	M20
Tension load					
Steel failure					
Characteristic resistance grade 4.6	NRk,s,C2	[kN]	34	63	98
Partial safety factor	γMs	[-]		2,00	
Characteristic resistance grade 5.8	N <sub>Rk,s,C2</sub>	[kN]	42	79	123
Partial safety factor	γMs	[-]		1,50	
Characteristic resistance grade 8.8	N <sub>Rk,s,C2</sub>	[kN]	67	126	196
Partial safety factor	γMs	[-]		1.50	
Characteristic resistance grade 10.9	N <sub>Rk,s,C2</sub>	[kN]	84	157	245
Partial safety factor	γMs	[-]		1,40	
Characteristic resistance A2-70, A4-70	NRk,s,C2	[kN]	59	110	172
Partial safety factor	γMs	[-]		1.87	
Characteristic resistance A4-80	N <sub>Rk,s,C2</sub>	[kN]	67	126	196
Partial safety factor	γMs	[-]		1,60	
Characteristic resistance 1.4529	N <sub>Rk,s,C2</sub>	[kN]	59	110	172
Partial safety factor	γMs	[-]		1,50	
Characteristic resistance 1.4565	N <sub>Rk,s,C2</sub>		59	110	172
Partial safety factor	γMs	[-]		1.87	
Combined pullout and concrete cone fail	ure in concr	ete C20/25 f	or a working lif	e of 50 years and	100 vears
Characteristic bond resistance					
Temperature T3: 50°C / 70°C	TRk.p.C2	[N/mm <sup>2</sup> ]	3,5	4,0	4,5
Temperature T4: 55°C / 75°C	TRk.p.C2	[N/mm <sup>2</sup> ]	3,3	3,8	4,4
Installation safety factor	γinst	[-]		1,0	•
Dry and wet concrete, Flooded hole	γinst	[-]		1,0	
Dustless drilling – Flooded hole	γinst	[-]		1,2	
Shear load					
Steel failure without lever arm					
Characteristic resistance grade 4.6	V <sub>Rk,s,C2</sub>	[kN]	13	18	28
Partial safety factor	V RK,S,C2 γMs	[-]	10	1,67	20
Characteristic resistance grade 5.8	V <sub>Rk,s,C2</sub>	[kN]	16	22	35
Partial safety factor	V Rk,s,C2 γMs	[-]	10	1,25	- 55
Characteristic resistance grade 8.8	V <sub>Rk,s,C2</sub>	[kN]	25	36	56
Partial safety factor	ν κκ,s,υ2 γMs	[-]	20	1,25	- 50
Characteristic resistance grade 10.9	VRk,s,C2	[kN]	32	45	70
Partial safety factor	γκκ,s,02 γMs	[-]	32	1,50	70
Characteristic resistance A2-70, A4-70	V <sub>Rk,s,C2</sub>	[kN]	22	31	49
Partial safety factor	VRk,s,C2 γMs	[-]	E L	1.56	45
Characteristic resistance A4-80	V <sub>Rk,s,C2</sub>	[kN]	25	36	56
Partial safety factor	VRk,s,C2 γMs	[-]	20	1,33	
Characteristic resistance 1.4529	V <sub>Rk,s,C2</sub>	[kN]	22	31	49
Partial safety factor		*	~~	1,25	43
Characteristic resistance 1.4565	γMs Vol 02		22	31	49
Partial safety factor	V <sub>Rk,s,C2</sub>	[-]		1,56	43
Characteristic shear load resistance V <sub>Rk,s,e</sub>	γMs in the Table		e multiplied by fo		actor for bot
Characteristic shedi ludu resistdire VRk,s,e	alvanized co	mmercial sta	e maniphed by it indard rods	mowing reduction i	actor for not-
بو Reduction factor for hot-dip galvanized rods		[-]	0,46	0,61	0,61
			0,70	0,5	0,01
Factor for annular gap without filling gap	αgap	[-]		11.5	

Table C20: Displacement under tensile and shear load - seismic category C2 of threaded rod

Size		M12	M16	M20
δN,C2(50%)	[mm]	0,20	0,40	0,77
δN,C2(100%)	[mm]	0,76	0,74	1,68
ỗV,C2(50%)	[mm]	5,29	4,12	4,94
δV,C2(100%)	[mm]	10,20	9,05	10,99

The anchor shall be used with minimum rupture elongation after fracture  $A_5 \ge 9\%$ .

Sika AnchorFix®-3030	
Performances Hammer drilling, Dustless drilling Seismic performance category C2 of threaded rod	Annex C 14

#### **Déclaration de Performances**



## Characteristic resistance to combined pull-out and concrete failure $\tau_{Rk,fi}(\theta)$ under fire exposure for threaded rods for hammer or dustless drilling

The characteristic resistance to combined pull-out and concrete failure under fire  $\tau_{Rk,fi,p}(\theta)$  shall be determined according to following equation:

$$\tau_{Rk,fi,p}(\theta) = k_{fi,p}(\theta) \cdot \tau_{Rk,cr}$$

where:

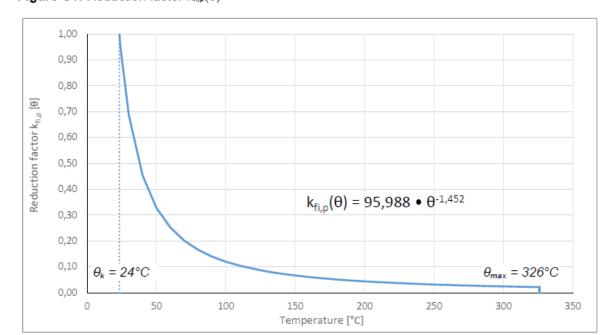
$$k_{fi,p}(\theta) = 1$$
 for  $\theta < \theta_k$   
 $k_{fi,p}(\theta) = 95,988 \cdot \theta^{-1,452} \le 1$  for  $\theta \le \theta_{max}$   
 $k_{fi,p}(\theta) = 0$  for  $\theta > \theta_{max}$ 

 $\theta_k = 21^{\circ}C$   $\theta_{max} = 326^{\circ}C$ 

τ<sub>Rk,fi,p</sub> = characteristic bond resistance for cracked concrete under fire exposure tor given temperature (θ)

 $\tau_{Rk,cr}$  = characteristic bond resistance for cracked concrete for concrete strength class C20/25  $k_{f,p}(\theta)$  = reduction factor for bond resistance under fire conditions

Figure C1: Reduction factor  $k_{fi,p}(\theta)$ 



Sika AnchorFix®-3030	
Performances Bond resistance under fire conditions	Annex C 15

#### Déclaration de Performances



**Table C21:** Steel failure - Characteristic resistance under tension load under fire conditions for threaded rod

Size			M8	M10	M12	M16	M20	M24	M27	M30
	NRk,s,fi(30)	[kN]	0,37	0,87	1,69	3,14	4,90	7,06	9,18	11,22
Steel grade:	$N_{Rk,s,fi(60)}$	[kN]	0,33	0,75	1,26	2,36	3,68	5,30	6,89	8,42
4.6; 5.8; 8.8; 10.9	N <sub>Rk,s,fi(90)</sub>	[kN]	0,26	0,58	1,10	2,04	3,19	4,59	5,97	7,29
1	NRk,s,fi(120)	[kN]	0,18	0,46	0,84	1,57	2,45	3,53	4,59	5,61
Stainless steel grade:	N <sub>Rk,s,fi(30)</sub>	[kN]	0,73	1,45	2,53	4,71	7,35	10,59	13,77	16,83
A2-70; A4-70; A4-80	N <sub>Rk,s,fi(60)</sub>	[kN]	0,59	1,16	2,11	3,93	6,13	8,83	11,48	14,03
High corrosion resistant steel grade:	NRk,s,fi(90)	[kN]	0,44	0,93	1,69	3,14	4,90	7,06	9,18	11,22
1.4529; 1.4565	N <sub>Rk,s,fi(120)</sub>	[kN]	0,37	0,81	1,35	2,51	3,92	5,65	7,34	8,98

**Table C22:** Steel failure - Characteristic resistance under tension load under fire conditions for rebar

Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
	N <sub>Rk,s,fi(30)</sub>	[kN]	0,50	1,18	2,26	4,02	6,28	9,82	16,08
Dohar BCt 500 C	N <sub>Rk,s,fi(60)</sub>	[kN]	0,45	1,02	1,70	3,02	4,71	7,36	12,06
Rebar BSt 500 S	N <sub>Rk,s,fi(90)</sub>	[kN]	0,35	0,79	1,47	2,61	4,08	6,38	10,45
	N <sub>Rk,s,fi(120)</sub>	[kN]	0,25	0,63	1,13	2,01	3,14	4,91	8,04

**Table C23:** Steel failure - Characteristic resistance under shear load under fire conditions for threaded rod

Size			M8	M10	M12	M16	M20	M24	M27	M30
	V <sub>Rk,s,fi(30)</sub>	[kN]	0,37	0,87	1,69	3,14	4,90	7,06	9,18	11,22
	V <sub>Rk,s,fi(60)</sub>	[kN]	0,33	0,75	1,26	2,36	3,68	5,30	6,89	8,42
	VRk,s,fi(90)	[kN]	0,26	0,58	1,10	2,04	3,19	4,59	5,97	7,29
Steel grade:	V <sub>Rk,s,fi(120)</sub>	[kN]	0,18	0,46	0,84	1,57	2,45	3,53	4,59	5,61
4.6; 5.8; 8.8; 10.9	$M^{o}_{Rk,s,fi(30)}$	[N.m]	0,4	1,1	2,6	6,7	13,0	22,5	33,3	45,0
	M <sup>o</sup> Rk,s,fi(60)	[N.m]	0,3	1,0	2,0	5,0	9,7	16,8	25,0	33,7
	Mo <sub>Rk,s,fi(90)</sub>	[N.m]	0,3	0,7	1,7	4,3	8,4	14,6	21,6	29,2
	Mo <sub>Rk,s,fi(120)</sub>	[N.m]	0,2	0,6	1,3	3,3	6,5	11,2	16,6	22,5
	VRk,s,fi(30)	[kN]	0,73	1,45	2,53	4,71	7,35	10,59	13,77	16,83
	$V_{Rk,s,fi(60)}$	[kN]	0,59	1,16	2,11	3,93	6,13	8,83	11,48	14,03
Stainless steel grade:	V <sub>Rk,s,fi(90)</sub>	[kN]	0,44	0,93	1,69	3,14	4,90	7,06	9,18	11,22
A2-70; A4-70; A4-80	V <sub>Rk,s,fi(120)</sub>	[kN]	0,37	0,81	1,35	2,51	3,92	5,65	7,34	8,98
High corrosion resistant steel grade:	$M^o_{Rk,s,fi(30)}$	[N.m]	0,7	1,9	3,9	10,0	19,5	33,7	49,9	67,5
1.4529; 1.4565	Mo <sub>Rk,s,fi(60)</sub>	[N.m]	0,6	1,5	3,3	8,3	16,2	28,1	41,6	56,2
	$M^{o}_{Rk,s,fi(90)}$	[N.m]	0,4	1,2	2,6	6,7	13,0	22,5	33,3	45,0
	M <sup>o</sup> Rk,s,fi(120)	[N.m]	0,4	1,0	2,1	5,3	10,4	18,0	26,6	36,0

**Table C24:** Steel failure - Characteristic resistance under shear load under fire conditions for rebar

Size			Ø8	Ø10	Ø12	Ø16	Ø20	Ø25	Ø32
	V <sub>Rk,s,fi(30)</sub>	[kN]	0,50	1,18	2,26	4,02	6,28	9,82	16,08
]	VRk,s,fi(60)	[kN]	0,45	1,02	1,70	3,02	4,71	7,36	12,06
]	V <sub>Rk,s,fi(90)</sub>	[kN]	0,35	0,79	1,47	2,61	4,08	6,38	10,45
Rebar BSt 500 S	V <sub>Rk,s,fi(120)</sub>	[kN]	0,25	0,63	1,13	2,01	3,14	4,91	8,04
Rebai BSt 300 S	M <sup>o</sup> Rk,s,fi(30)	[N.m]	0,6	1,8	4,1	9,7	18,9	36,8	77,2
	Mo <sub>Rk,s,fi(60)</sub>	[N.m]	0,5	1,5	3,1	7,2	14,1	27,6	57,9
	Mo <sub>Rk,s,fi(90)</sub>	[N.m]	0,4	1,2	2,6	6,3	12,3	23,9	50,2
	M <sup>o</sup> Rk,s,fi(120)		0,3	0,9	2,0	4,8	9,4	18,4	38,6

Sika AnchorFix®-3030	
Performances Bond resistance under fire conditions	Annex C 16



#### Specifications of intended use

#### Anchorages subject to:

- Static and quasi-static load:
  - threaded rod
  - threaded socket
  - rebar
- Seismic actions category C1 (max w = 0,5 mm):
  - threaded rod size M8, M10, M12, M16, M20, M24, M27, M30
  - rebar size Ø10, Ø12, Ø16, Ø20, Ø24, Ø25, Ø32
- Seismic actions category C2 (max w = 0,8 mm):
  - threaded rod size M12, M16, M20

#### Base materials

- Cracked and uncracked concrete
- Reinforced or unreinforced normal weight concrete without fibres of strength class C20/25 at minimum and C50/60 at maximum according EN 206:2013 + A2:2021.

#### Temperature range:

- T3: -40°C to +70°C (max. short. term temperature +70°C and max. long term temperature +50°C)
- T4: -40°C to +75°C (max. short. term temperature +75°C and max. long term temperature +55°C)

#### Use conditions (Environmental conditions)

- Structures subject to dry, internal conditions (all materials)
- For all other conditions according to EN 1993-1-4 corresponding to corrosion resistance class:
  - Stainless steel A2 according to Annex A 4, Table A1: CRC II
  - Stainless steel A4 according to Annex A 4, Table A1: CRC III
  - High corrosion resistance steel HCR according to Annex A 4, Table A1: CRC V

#### Concrete conditions:

- I1 installation in dry or wet (water saturated) concrete and use in service in dry or wet concrete.
- I2 installation in water-filled (not sea water) and use in service in dry or wet concrete

#### Design:

- The anchorages are designed in accordance with the EN 1992-4 under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored.
   The position of the anchor is indicated on the design drawings.
- Anchorages under seismic actions (cracked concrete) are designed in accordance with EN 1992-4.
- Anchorages under fire exposure are designed in accordance with EOTA TR 082.

#### Installation:

- Hole drilling by hammer drilling, dustless drilling or diamond core drilling mode.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the
  person responsible for technical matters of the site.

#### Installation direction:

D3 – downward and horizontal and upwards (e.g. overhead) installation

Sika AnchorFix®-3030	
Intended use Specifications	Annex B 1

#### Déclaration de Performances



EAD 330499-02-0601; édition Septembre 2022 (ETA 17/0694 de 09/09/2025)

Scellement chimique de tiges filetées pour utilisation dans du béton fissuré et non fissuré

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#### MARQUAGE CE A PLACER SUR L'ETIQUETTE



21

Sika Services AG, Zurich, Switzerland

DoP No. 68247540

Organisme Notifié 1020

Pour plus d'informations, se référer aux documents d'accompagnement et ETA 17/0694 de 09/09/2025

EAD 330499-02-0601; édition Septembre 2022

Scellement chimique de tiges filetées pour utilisation dans du béton fissuré et non fissuré

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