

S-SCV



- *Unique identification code of the product-type:*
SMART S-SCV
- *Type or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):*
See annex 1 to this document
- *Intended uses of the construction product, in accordance with the applicable harmonized technical specification as foreseen by the manufacturer:*

Intended use or uses of the construction product according to ETAG 001 Part 5	
Generic type	Bonded capsule anchor for anchorage of threaded rods.
For use in	For use in non-cracked concrete C20/25 to C50/60 according to 206-1:2000-12. Installation in dry or wet holes (no flooded holes). Overhead installation permitted.
Option / Category	ETAG001 Part 5 Option 7 used as an EAD
Loading	static, quasi static
Material	<u>zinc-plated steel:</u> dry internal conditions only property class 5.8 and 8.8 covered sizes: M8, M10, M12, M14, M16, M20, M22, M24 and M30 <u>stainless steel A4:</u> internal and external use without particular aggressive conditions covered sizes: M8, M10, M12, M14, M16, M20, M22, M24 and M30 <u>highly corrosion resistant steel (HCR 1.4529):</u> internal and external use with particular aggressive conditions covered sizes: M8, M10, M12, M14, M16, M20, M22, M24 and M30
Temperature range	Service temperature range: -40°C to +80°C. Maximum long term temperature = +50°C. Maximum short term temperature = +80°C. Min. installation temperature: concrete -5°C, mortar +5°C

- *Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11 (5):*
pgb-Polska sp. Z o.o. – Ul. Jondy 5 – 44-100 Gliwice – Polska
- *System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:*
System 1

- In case of the declaration of performance concerning a construction product for which European Technical Assessment has been issued:

ETA - 14/0308 issued by	CSTB – Centre Scientifique et Technique du Bâtiment
Body nr	NB 0679
On the basis of	ETAG001 Part 1 and Part 5
Certificate of Conformity issued	CE certificate nr
Under System	1

Declared performance – Essential characteristics – Performances

Temperature in the concrete member	Minimum curing time in dry concrete	Minimum curing time in wet concrete
≥ - 5°C	5 hrs	10 hrs
≥ + 5°C	1 hr	2 hrs
≥ + 20°C	20 min.	40 min.
≥ + 30°C	10 min.	20 min.

STANDARD EMBEDMENT DEPTH													
Installation parameters (ETAG001 part 1 and 5)				M8	M10	M12	M14	M16	M20	M22	M24	M30	
	d_o	Nominal diameter of drill bit	[mm]	10	12	14	16	18	22	24	26	32	
	h_{ef}	Effective standard embedment depth	[mm]	80	90	110	120	125	170	190	210	280	
	d_f	Fixture clearance hole diameter	[mm]	9	12	14	16	18	22	24	26	33	
	T_{inst}	Nominal installation torque	[Nm]	10	20	40	60	80	120	135	180	300	
	h_1	Depth of drilled hole	[mm]	80	90	110	120	125	170	190	210	280	
	h_{min}	Min. thickness of concrete member	[mm]	110	120	140	150	160	220	240	260	340	
	s_{min}	Minimum spacing	[mm]	40	45	55	60	65	85	95	105	140	
	c_{min}	Minimum edge distance	[mm]	40	45	55	60	65	85	95	105	140	
Tension load: steel failure													
	$N_{Rk,s}$	Characteristic resistance galvanized steel class 5.8	[kN]	18	29	42	58	78	123	152	177	281	
	$N_{Rk,s}$	Characteristic resistance galvanized steel class 8.8	[kN]	29	46	67	92	126	196	242	282	449	
	γ_{Ms}	Partial safety factor ¹	[-]	1,5									
	$N_{Rk,s}$	Characteristic resistance for stainless steels class A4-70, 1.4529 and 1.4565 class 70	[kN]	26	40	59	81	110	172	212	247	393	
	γ_{Ms}	Partial safety factor ¹	[-]	1,87									
	$N_{Rk,s}$	Characteristic resistance for stainless steels class A4-80	[kN]	29	46	67	92	126	196	242	282	449	
	γ_{Ms}	Partial safety factor ¹	[-]	1,6									
Tension load: combined pull-out and concrete cone failure													
	$N_{Rk,p}$	Tension characteristic resistance in NON-CRACKED concrete C20/25 for temperature range I (40°C/24°C) ²	[kN]	24,1	33,9	49,8	63,3	75,4	117,5	144,5	174,2	263,9	
	$N_{Rk,p}$	Tension characteristic resistance in NON-CRACKED concrete C20/25 for temperature range II (80°C/50°C) ²	[kN]	20,1	28,3	41,5	52,8	62,8	106,8	131,3	158,3	237,5	
	$\gamma_{Mp} = \gamma_{Mc}$	Partial safety factor ¹	[-]	1,5 ³									
	ψ_c	Increasing factor C25/30	[-]	1,06									
		Increasing factor C30/37	[-]	1,14									
Increasing factor C40/50		[-]	1,26										
Increasing factor C50/60		[-]	1,34										

¹ In absence of other national regulations
² Maximum short and long term temperatures
³ The partial safety factor $\gamma_2 = 1,0$ is included
⁴ The partial safety factor $\gamma_2 = 1,2$ is included

DECLARATION OF PERFORMANCE

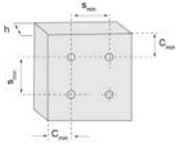






DoP S-SCV001 page 3 / 6

Tension load: splitting failure													
	$S_{cr,N}$	Critical spacing	[mm]	320	270	280	300	320	430	480	530	700	
	$S_{cr,sp}$	Critical spacing (splitting)	[mm]	320	270	280	300	320	430	480	530	700	
	$C_{cr,N}$	Critical edge distance	[mm]	160	135	140	150	160	215	240	265	350	
	$C_{cr,sp}$	Critical edge distance (splitting)	[mm]	160	135	140	150	160	215	240	265	350	
	γ_{Mc}	Partial safety factor ¹	[-]	1,5 ³									1,8 ⁴
Tension load: displacements													
	N	Tension service load	[kN]	9,6	13,5	19,7	25,1	29,9	48,3	59,4	71,6	94,2	
	δ_{N0}	Displacements under short term tension loads	[mm]	0,17	0,18	0,18	0,18	0,19	0,19	0,20	0,20	0,21	
	$\delta_{N\infty}$	Displacements under long term tension loads	[mm]	0,50									
Shear load: steel failure without lever arm													
	$V_{Rk,s}$	Shear steel characteristic resistance galvanized steel class 5.8	[kN]	9	14	21	29	39	61	76	88	140	
	$V_{Rk,s}$	Shear steel characteristic resistance galvanized steel class 8.8	[kN]	15	23	34	46	63	98	121	141	224	
	γ_{Ms}	Partial safety factor ¹	[-]	1,25									
	$V_{Rk,s}$	Shear steel characteristic resistance for stainless steels class A4-70, 1.4529 and 1.4565 class 70	[kN]	13	20	30	40	55	86	106	124	196	
	γ_{Ms}	Partial safety factor ¹	[-]	1,56									
	$V_{Rk,s}$	Shear steel characteristic resistance for stainless steels class A4-80	[kN]	15	23	34	46	63	98	121	141	224	
	γ_{Ms}	Partial safety factor ¹	[-]	1,33									
Shear load: steel failure with lever arm													
	$M^0_{Rk,s}$	Characteristic bending moment for galvanized steel class 5.8	[kN]	19	37	66	105	166	325	448	561	1125	
	$M^0_{Rk,s}$	Characteristic bending moment for galvanized steel class 8.8	[kN]	30	60	105	168	266	519	716	898	1799	
	γ_{Ms}	Partial safety factor ¹	[-]	1,25									
	$M^0_{Rk,s}$	Characteristic bending moment for stainless steels class A4-70, 1.4529 and 1.4565 class 70	[kN]	26	52	92	146	233	454	627	786	1574	
	γ_{Ms}	Partial safety factor ¹	[-]	1,56									
	$M^0_{Rk,s}$	Characteristic bending moment for stainless steels class A4-80	[kN]	30	60	105	168	266	519	716	898	1799	
	γ_{Ms}	Partial safety factor ¹	[-]	1,33									
Shear load: concrete pryout failure													
	K	K factor (for equation 5.7 of TR029, section 5.2.3.3)	[-]	2,0									
	γ_{Mc}	Partial safety factor ¹	[-]	1,5 ³									
Shear load: concrete edge failure ⁵													
	γ_{Mc}	Partial safety factor ¹	[-]	1,5 ³									
Shear load: displacements													
	V	Tension service load	[kN]	5,2	8,3	12,0	16,4	22,4	35,0	43,3	50,4	80,1	
	δ_{V0}	Displacements under short term tension loads	[mm]	2,0	2,1	2,2	2,3	2,5	2,6	2,8	2,8	3,0	
	$\delta_{V\infty}$	Displacements under long term tension loads	[mm]	2,9	3,1	3,3	3,5	3,7	4,0	4,1	4,1	4,4	

⁵ Concrete edge failure: see chapter 5.2.3.4 of TR 029



EXTENDED EMBEDMENT DEPTH							
Installation parameters (ETAG001 part 1 and 5)				M12 /1,5t	M16 /1,5t	M20 /1,5t	M24 /1,5t
	d_o	Nominal diameter of drill bit	[mm]	14	18	22	26
	h_{ef}	Effective standard embedment depth	[mm]	165	190	255	315
	d_f	Fixture clearance hole diameter	[mm]	14	18	22	26
	T_{inst}	Nominal installation torque	[Nm]	40	80	120	180
	h_1	Depth of drilled hole	[mm]	165	190	255	315
	h_{min}	Min. thickness of concrete member	[mm]	195	225	300	370
	s_{min}	Minimum spacing	[mm]	55	65	85	105
	c_{min}	Minimum edge distance	[mm]	55	65	85	105
Tension load: combined pull-out and concrete cone failure							
	$N_{Rk,p}$	Tension characteristic resistance in NON-CRACKED concrete C20/25 for temperature range I (40°C/24°C) ²	[kN]	74,6	114,6	176,2	261,3
	$N_{Rk,p}$	Tension characteristic resistance in NON-CRACKED concrete C20/25 for temperature range II (80°C/50°C) ²	[kN]	62,2	95,5	152,2	225,6
	$\gamma_{Mp} = \gamma_{Mc}$	Partial safety factor ¹	[-]	1,5 ³			
	ψ_c	Increasing factor C25/30	[-]	1,06			
		Increasing factor C30/37	[-]	1,14			
Increasing factor C40/50		[-]	1,26				
	Increasing factor C50/60	[-]	1,34				
Tension load: splitting failure							
	$s_{cr,N}$	Critical spacing	[mm]	410	480	640	790
	$s_{cr,sp}$	Critical spacing (splitting)	[mm]	410	480	640	790
	$c_{cr,N}$	Critical edge distance	[mm]	205	240	320	395
	$c_{cr,sp}$	Critical edge distance (splitting)	[mm]	205	240	320	395
	γ_{Mc}	Partial safety factor ¹	[-]	1,5 ³			
Tension load: displacements							
	N	Tension service load	[kN]	29,6	45,5	72,5	107,4
	δ_{N0}	Displacements under short term tension loads	[mm]	0,18	01,9	0,19	0,20
	$\delta_{N\infty}$	Displacements under long term tension loads	[mm]	0,50			
Shear load: displacements							
	V	Tension service load	[kN]	12,0	22,4	35,0	50,4
	δ_{V0}	Displacements under short term tension loads	[mm]	2,2	2,5	2,6	2,8
	$\delta_{V\infty}$	Displacements under long term tension loads	[mm]	3,3	3,7	4,0	4,1

- *The performances of the product identified by the above identification code are in conformity with the declared performance. This declaration of performance is issued under the sole responsibility of pgb-Europe nv. Signed for and behalf of the manufacturer by:*


Place and date of issue	Signature	
Melle, 18/08/2014	nv pgb-Europe sa Gontrode Heirweg 170 9090 MELLE BE 0425 888 396	Johannes Heye, product manager 

Annex 1 : Product overview



Spin-in capsule "S-SCV"

CARTON BOX PACKING


size	pgb code	EAN13		
8	SMCAD3008 VE+	5902134727363	10	
10	SMCAD3010 VE+	5902134727370	10	
12	SMCAD3012 VE+	5902134727387	10	
14	SMCAD3014 VE+	5902134727394	10	
16	SMCAD3016 VE+	5902134727400	10	
20	SMCAD3020 VE+	5902134727417	10	
22	SMCAD3022 VE+	5902134727424	10	
24	SMCAD3024 VE+	5902134727431	10	
30	SMCAD3030 VE+	5902134727448	5	




Threaded rod for chemical anchors



Threaded rod for chemical anchors

size	pgb code	EAN13		
M 8x110	SM0AS308 Z	5902134723716	10	
M 10x130	SM0AS310 Z	5902134723723	10	
M 12x160	SM0AS312 Z	5902134723730	10	
M 16x190	SM0AS316 Z	5902134723747	10	
M 20x260	SM0AS320 Z	5902134723754	6	
M 24x300	SM0AS324 Z	5902134723761	6	

size	pgb code	EAN13		
M 8x110	SM0AS308 A4	5902134725574	10	
M 10x130	SM0AS310 A4	5902134725581	10	
M 12x160	SM0AS312 A4	5902134725598	10	
M 16x190	SM0AS316 A4	5902134725604	10	
M 20x260	SM0AS320 A4	5902134725611	6	
M 24x300	SM0AS324 A4	5902134725628	6	