

Declaration of Performance

No. 0756-CPD-0467

Bonded anchor **Gebofix EA-SF**

Intended use of the construction product according to ETA-12/0105	
Generic type:	bonded anchor
Base material:	non-cracked reinforced or unreinforced normal weight concrete C20/25 to C50/60 according to EN 206-1:2000 threaded rod M8, M10, M12, M16, M20, M24
Durability:	<ul style="list-style-type: none"> - elements made of zinc coated or hot-dip galvanized steel, class 4.8 and 5.8 dry internal conditions - elements made of stainless steel A4, class 70 and 80 dry internal conditions, external atmospheric exposure (including industrial and marine environment) or exposure to permanently damp internal conditions if no particular aggressive conditions exist
Loading:	static, quasi-static
Service temperature range	-40 °C to +40 °C (max. short term temperature +40 ° C and max. long term temperature +24 °C)
Use categories	1: dry or wet concrete

ETA-12/0105 issued by TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p. on the basis of ETAG 001
 Certificate of Conformity 0756-CPD-0467 issued by Technische Universität Darmstadt - Institut für Massivbau
 Under AVCP System 1

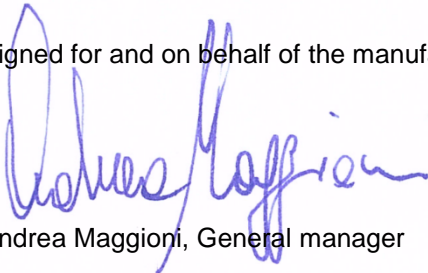
Declared performances according to ETAG 001:2008 Part 1 and Part 5, ETA-12/0105 (Design method TR 029)								
Threaded rod diameter		M8	M10	M12	M16	M20	M24	
Essential Characteristics		Performance						
<i>Installation parameters</i>								
d	Nominal diameter of bar	[mm]	8	10	12	16	20	24
d ₀	Nominal diameter of drill bit	[mm]	10	12	14	18	24	28
d _{fix}	Diameter of clearance hole in the fixture	[mm]	9	12	14	18	22	26
h _{ef}	Effective anchorage depth	[mm]	80	90	110	125	170	210
h ₁	Depth of the drilling hole	[mm]	80	90	110	125	170	210
h _{min}	Minimum thickness of the concrete member	[mm]	110	120	140	160	215	260
T _{inst}	Maximum installation torque	[Nm]	10	20	40	60	120	150
t _{fix}	Thickness to be fixed	[mm]	0 to 1500					
s _{min}	Minimum spacing	[mm]	40	50	60	80	100	120
c _{min}	Minimum edge distance	[mm]	40	50	60	80	100	120
<i>Pull-out failure mode</i>								
N _{Rk,p,ucr}	Characteristic tension resistance in non-cracked concrete C20/25	[kN]	16	35	35	50	75	95
ψ _{c,C30/37}	Increasing factor for concrete C30/37	[-]	1.08					
ψ _{c,C40/50}	Increasing factor for concrete C40/50	[-]	1.15					
ψ _{c,C50/60}	Increasing factor for concrete C50/60	[-]	1.19					
s _{cr,Np}	Critical spacing	[mm]	160	180	220	250	340	420
c _{cr,Np}	Critical edge distance	[mm]	80	90	110	125	170	210

<i>Splitting failure mode</i>								
$S_{cr,sp}$	Critical spacing	[mm]	240	270	330	375	510	630
$C_{cr,sp}$	Critical edge distance	[mm]	120	135	165	188	255	315
<i>Partial safety factors</i>								
$\gamma_{Mc}, \gamma_{Mp}, \gamma_{Msp}$	Partial safety factor	[-]	1.8					
<i>Displacement on tension load</i>								
N	Service tension load	[kN]	6.3	13.9	13.9	19.8	29.8	37.7
δ_{N0}	Short term displacement under tension load	[mm]	0.3	0.3	0.3	0.4	0.5	0.6
<i>Displacement on shear load</i>								
V	Service shear load	[kN]	4.2	6.6	9.6	17.9	28.0	40.3
δ_{V0}	Short term displacement under shear load	[mm]	0.3	0.3	0.5	0.7	0.9	1.2
$\delta_{V\infty}$	Long term displacement under shear load	[mm]	0.5	0.5	0.8	1.1	1.4	1.8

The performance of the product above identified is in conformity with the declared performance.

This declaration of performance is issued under the sole responsibility of G&B Fissaggi S.r.l.

Signed for and on behalf of the manufacturer by:



Andrea Maggioni, General manager

Villastellone, 1 July 2013



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