



**DECLARATION OF PERFORMANCES
N° ATS 01B EN**

According to RPC 305/2011/EU



LR ETANCO SAS
Parc les Erables – Bât 1 – 66 route de Sartrouville – BP 49 – 78231 LE PECQ Cedex – France
Tel. : +33 (0)1 34 80 52 00 – Fax : +33 (0)1 30 71 01 89
E-mail : commercial.france@etanco.fr – Web : www.etanco.eu

1 – Product identification :

ATS EVO

2 – Intended use :

Torque controlled expansion zinc plated steel anchor for cracked and uncracked concrete

3 - Manufacturer :

FRIULSIDER S.p.A. - Via Trieste 1 - 33048 San Giovanni al Natisone (UD) - Italy

4 – Authorized representative :

Not allowed

5 – Systems of assessment (Annex V) :

System 1

6a/b – Harmonised standard / European assessment document :

Standard / EAD	Notified body	Report
ETAG001 p1-2 annexe E	ZAG notified body Nb 1404	ETA-10/0423 of 26/08/2014 1404-CPR-2553

7 – Declared performances :

See annex

8 – Appropriate technical documentation and/or specific technical documentation :

Not allowed

The performance of the product identified above is consistent with the reported performance. In accordance with Regulation (EU) No. 305/2011, this performance statement is made under the sole responsibility of the manufacturer mentioned above.

Manufacturer's representation signatures: Le Pecq – 20/11/2020

Function	Name	Sign
Technical director	Philippe Tolleret	
Quality manager	Frédéric Lucas	



DECLARATION OF PERFORMANCES

N° ATS 01B EN

According to RPC 305/2011/EU



Annex

Intended use :

Generic type and intended use of the product	Torque controlled expansion anchor made of galvanized steel, sizes M6, M8, M10, M12 and M16
For use in	Cracked and un-cracked concrete (C20/25 to C50/60 according to EN 206-1:2003)
Option / category	ETAG 001 option 1 + TR 020
Loading	Static and quasi-static, fire resistance
Material	Steel class 8.8 according to EN ISO 898-1 Zinc-plated steel according to EN ISO 4042: Dry internal conditions only
Fire resistance and class	A1 according to EN 13501-1 F120

Declared performances :

Declared performances acc to ETA-10/0423- ETAG 001 p1 and 2 Design method ETAG001-Annex C or CEN/TS 1992-4 Essential characteristics			Performance				
Installation parameters			M6	M8	M10	M12	M16
d₀	Nominal diameter of drill bit	[mm]	10	12	15	18	24
h_{nom}	Minimum installation depth	[mm]	60	70	80	100	115
h_{ef}	Effective anchorage depth	[mm]	49	59	67	88	99
h_{min}	Minimum thickness of the concrete member	[mm]	100	120	140	180	200
T_{inst}	Nominal torque moment	[Nm]	10	20	45	80	150
s_{min}	Minimum spacing	[mm]	50	60	70	80	100
for c ≥	Edge distance	[mm]	75	90	100	150	200
c_{min}	Minimum edge distance	[mm]	50	60	70	80	100
for s ≥	Anchor spacing	[mm]	75	90	100	150	200
Tension Steel failure mode							
N_{Rk,s}	Tension Steel characteristic failure	[kN]	16	29	46	67	126
γ_{m,sN}¹⁾	Partial safety factor for tension steel failure	[-]	1,5				
Pull-out failure mode							
N_{Rk,p,cr}	Tension characteristic load in cracked concrete	[kN]	9	12	16	25	35,5²⁾
N_{Rk,p,ucr}	Tension characteristic load in un-cracked concrete	[kN]	16	22,8²⁾	27,6²⁾	41,6²⁾	49,7²⁾
γ₂	Partial safety factor	[-]	1,0				
γ_{m,c}¹⁾	Partial safety factor	[-]	1,5				
s_{cr,N}	Critical spacing	[mm]	150	180	200	270	300
c_{cr,N}	Critical edge distance	[mm]	75	90	100	135	150
ψ_c C30/37	Increasing factor	[-]	1,22				
ψ_c C40/50		[-]	1,41				
ψ_c C50/60		[-]	1,55				
Splitting failure mode							
s_{cr,sp}	Critical spacing (splitting)	[mm]	150	180	200	270	300
c_{cr,sp}	Critical edge distance (splitting)	[mm]	75	90	100	135	150
γ_{m,c}¹⁾	Partial safety factor	[-]	1,5				
Displacement on Tension Load							
N_{cr}	Service tension load in cracked concrete C20/25	[kN]	4,3	5,7	7,6	11,9	16,9
δ_{N0,cr}	Short term displacement under tension load	[mm]	1,21	0,83	1,25	0,98	0,96
δ_{N∞,cr}	Long term displacement under tension load	[mm]	2,38	2,49	1,99	1,12	2,15
N_{ucr}	Service tension load in un-cracked concrete C20/25	[kN]	7,7	10,9	13,2	19,8	23,6
δ_{N0,ucr}	Short term displacement under tension load	[mm]	0,47	0,81	0,30	0,25	0,20
δ_{N∞,ucr}	Long term displacement under tension load	[mm]	2,38	2,49	1,99	1,12	2,15
Shear Steel failure mode							



DECLARATION OF PERFORMANCES N° ATS 01B EN

According to RPC 305/2011/EU



$V_{Rk,s}$	Shear Steel characteristic failure	[kN]	14	26	42	50	97
$M^0_{Rk,s}$	Bending Moment characteristic failure	[Nm]	12	30	60	105	266
$\gamma_{m,sV}^{1)}$	Partial safety factor for shear steel failure	[-]	1,25				
Shear Concrete Pry-out and Edge failure mode							
k	Factor equation (5.6) of ETAG, Annex C, § 5.2.3.3	[-]	1,0		2,0		
l_{ef}	Effective anchorage length	[mm]	49	59	67	88	99
d_{nom}	Nominal diameter of anchor	[mm]	10	12	15	18	24
$\gamma_m^{1)}$	Partial safety factor ($\gamma_{m,c}=\gamma_{m,pr}$)	[-]	1,5				
Displacement on Shear Load							
V	Service shear load in concrete	[kN]	8,0	14,9	24,0	28,6	55,4
δ_{V0}	Short term displacement under shear load	[mm]	1,39	1,94	2,71	1,69	2,69
$\delta_{V\infty}$	Long term displacement under shear load	[mm]	2,09	2,91	4,07	2,54	4,04
Fire Resistance* (all direction)			M6	M8	M10	M12	M16
$F_{Rk,s,fi,30}$	For fire resistance duration = 30 minutes	[kN]	0,2	0,4	0,9	1,7	3,1
$F_{Rk,s,fi,60}$	For fire resistance duration = 60 minutes	[kN]	0,2	0,3	0,7	1,3	2,4
$F_{Rk,s,fi,90}$	For fire resistance duration = 90 minutes	[kN]	0,1	0,3	0,6	1,1	2,0
$F_{Rk,s,fi,120}$	For fire resistance duration = 120 minutes	[kN]	0,10	0,2	0,5	0,8	1,6

¹⁾ In absence of other national regulations; ²⁾ Pull-out failure not decisive.