In accordance with Annex III to Regulation (EU) No 305/2011 (Construction Products)

Nr 008/2013/Vinylester STVK
HAMAR Injection System Vinylester STVK for concrete

1. Unique Product identification code:
Product identification code determines name of the product and tube volume in ml
Vinylester STVK/Volume (e.g. STVK 280).

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):
The identification of the product is given by the lot number specified on the label together with the CE marking.

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:
Anchoring (injection type) Vinylester STVK with threaded rods sizes from M8 to M30 or reinforced bars with diameter Ø 8 to Ø 32 for use in non-cracked concrete. Anchors should be used only in cases of static or quasi-static loadings in reinforced or unreinforced normal concrete of strength classes C20/25 at minimum and C50/60 at most. The anchor may be used in dry or wet concrete. The anchors of the size M8-M16 may also be used in water-filled boreholes. The anchor may be used in the following temperature ranges: -40°C to +40°C (max. long term temperature +24°C, the max. short-term temperature +40°C); -40°C to +80°C (max. long term temperature +50°C, the max. short-term temperature +80°C); -40°C to +120°C (max. long term temperature +72°C, the max. short-term temperature +120°C).
According to 1.2 ETA-10/0132.

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):
Vinylester P.H. HAMAR Sp.J. B i H Grzesiak, ul. Hutnicza 7, 81-061 Gdynia, Poland

5. Where applicable, name and contact address of the authorized representative whose mandate covers the task specified in Article 12(2): NA

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V: System 1 attestation of conformity of all characteristics.

7. In case of the declaration of performance concerning a construction product covered by the harmonized standard: NA

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:
Construction Industry Institute, European Notified Body no. 0756-CPD performed initial type testing of the product, initial inspection of the manufacturing plant and of the factory production control with continuous surveillance, assessment and approval of the factory production control under system 1 and issued the EC Certificate of Conformity no. 0756-CPD-0310.
Deutsches Institute für Bautechnik issued the European Technical Approval no. ETA-10/0132 in 21.06.2013.

9. Declared performance:

Essential characteristics		**Performance**								
Installation parameters for threaded rod [mm]		**M8**	**M10**	**M12**	**M16**	**M20**	**M24**	**M27**	**M30**	
Nominal diameter of the drill hole d_0 =		10	12	14	18	24	28	32	35	
Embedment depth $h_{ef,min}$ =		60	60	70	80	90	96	108	120	
Embedment depth $h_{ef,max}$ =		160	200	240	320	400	480	540	600	
Hole diameter in fixing element $d_f \leq$		9	12	14	18	22	26	30	33	
Thickness of the fixture $t_{fix,max}$ <		1500								
Min. base material thickness h_{min}		h_{ef} + 30mm ≥ 100mm			$h_{ef} + 2d_0$					
Min. axial spacing s_{min}		40	50	60	80	100	120	135	150	
Min. edge distance c_{min}		40	50	60	80	100	120	135	150	
Torque T_{inst} [Nm] ≤		10	20	40	80	120	160	180	200	
Installation parameters for reinforced bar [mm]		**Ø 8**	**Ø 10**	**Ø 12**	**Ø 14**	**Ø 16**	**Ø 20**	**Ø 25**	**Ø 28**	**Ø 32**
Nominal diameter of the drill hole d_0		12	14	16	18	20	24	32	35	40
Embedment depth $h_{ef,min}$		60	60	70	75	80	90	100	112	128
Min. base material thickness h_{min}		h_{ef} + 30mm ≥ 100mm			$h_{ef} + 2d_0$					
Min. axial spacing s_{min}		40	50	60	70	80	100	125	140	160
Min. edge distance c_{min}		40	50	60	70	80	100	125	140	160
The minimum curing time depending on the temperature of base material		**Gelling time [min]**			**Curing time in dry concrete**			**Curing time in wet concrete**		
≥ - 10°C		90			24 h			48 h		
≥ - 5°C		90			14 h			28 h		
≥ 0°C		45			7h			14 h		
≥ + 5 °C		25			2 h			4 h		
≥ + 10 °C		15			80 min			160 min		
≥ + 20 °C		6			45 min			90 min		
≥ + 30 °C		4			25 min			50 min		
≥ + 35 °C		2			20 min			40 min		
≥ + 40 °C		1,5			15 min			30 min		
Design according to TR 029 - Characteristics for threaded rod: - steel failure $N_{Rk,s}$ [kN]		**M8**	**M10**	**M12**	**M16**	**M20**	**M24**	**M27**	**M30**	
Steel class 4.8		15	23	34	63	98	141	184	224	
Steel class 5.8		18	29	42	78	122	176	230	280	
Steel class 8.8		29	46	67	125	196	282	368	449	
Stainless steel A4 i HCR class 50 (> M24) i 70(≤ M24)		26	41	59	110	172	247	230	281	
- pull out bond resistance in non cracked concrete $\tau_{Rk,uncr}$ [N/mm2] and concrete failure C20/25, dry or wet concrete	Temp. range I 40°C/24°C	10	12	12	12	12	11	10	9	
	Temp. range II 80°C/50°C	7,5	9	9	9	9	8,5	7,5	6,5	
	Temp. range III 120°C/72°C	5,5	6,5	6,5	6,5	6,5	6,5	5,5	5	
Design according to TR 029-Characteristics for reinforced bar: - steel failure $N_{Rk,s}$ [kN]		**Ø 8**	**Ø 10**	**Ø 12**	**Ø 14**	**Ø 16**	**Ø 20**	**Ø 25**	**Ø 28**	**Ø 32**
		$A_s \times f_{uk}$ (Technical Specification for the reinforcing bar)								
- pull out bond resistance in non cracked concrete $\tau_{Rk,uncr}$ [N/mm2] and concrete failure C20/25, dry or wet concrete	Temp. range I 40°C/24°C	10	12	12	12	12	12	11	10	8,5
	Temp. range II 80°C/50°C	7,5	9	9	9	9	9	8	7	6
	Temp. range III 120°C/72°C	5,5	6,5	6,5	6,5	6,5	6,5	6	5	4,5

Harmonized Technical Specification: ETAG 001:2006 part 1 and part 5

10. The performance of the product identified in 1 and 2 is in conformity with the declared performance in 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in 4.

Signed for and on behalf of the manufacturer by:

Karolina Swirbutowicz

M.Sc. Karolina Swirbutowicz, Quality Department

Gdynia 01.07.2013

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