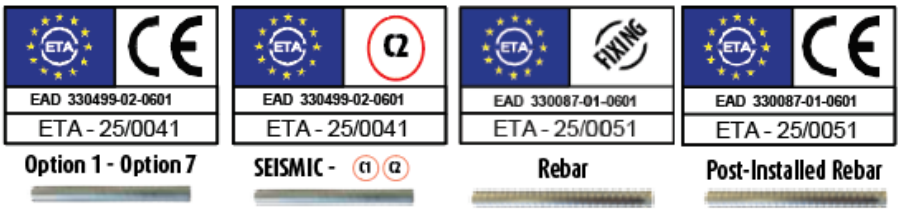
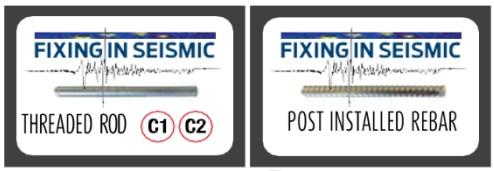
TECHNICAL DATA SHEET

Product: MAXFIX V4 Vinylester Styrene-Free Chemical Anchor





Complies with LEED® requirements.

Class A+ for emission of volatile organic compounds (VOCs) in living spaces.

MAXFIX V4 is a high performance bi-component vinylester styrene-free resin designed for structural and high-load applications, CE marked, and ETA assessed for use in concrete. It provides exceptional flexibility, seismic qualification, and performance in demanding conditions, including Option 1 cracked and Option 7 non-cracked concrete.

Key Features & Intended use

- **Flexible Anchorage Depths**: Up to 20 times the rod diameter
- **Fire Resistance**: Up to R240
- **Certified Service Temperatures**:
  -40°C to +80°C (long-term max: +50°C)
- **Rebar Connections**: ETA-25/0051 for post-installed rebar connections (8mm to 32mm)
- **Installation Options**: Can be installed using hollow drill bits, avoiding dust removal procedures.
- **Suitable for Wet or Flooded Holes**: Can be used in dry, wet concrete or with flooded holes (with threaded bars M8-M30)
- **Temperature Range for Installation**: Base material temperature between -10°C and +40°C
- **VOC Compliant**: Meets French Decree 2011-321 and ISO 16000/EN 16516 standards.
- **Thixotropic Consistency**: Stable and easy to apply.
- **No Premixing Required**: Resin and hardener mix during extrusion.
- **Versatile**: Can be used for repair and refilling.
- **Suitable**: for holes drilled with hollow drill bits
- **Low odour**

Certified use	Specific use	Suitable use
Option 1: Cracked concrete Option 7: Non cracked concrete	Natural stone Solid, perforated and hollow masonry Hollow concrete block	Cellular Aerated concrete

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Temperate Setting Times

01: Base Material Temperature

02: Working Time

03: Curing Time

DRY

01	02	03
40 °C	1 min	20 min
35 °C	2 min	25 min
30 °C	3 min	30 min
25 °C	5 min	35 min
20 °C	7' 30"	40 min
15 °C	11' 30"	45 min
10 °C	16 min	1 hour
5 °C	25 min	1 h 30'
0 °C	45 min	7 hours
-5 °C *	65 min	14 hours
-10 °C *	1 h 45'	24 hours

WET

01	02	03
40 °C	1 min	40 min
35 °C	2 min	50 min
30 °C	3 min	1 hour
25 °C	5 min	1 h 10'
20 °C	7' 30"	1 h 20'
15 °C	11' 30"	1 h 30'
10 °C	16 min	2 hours
5 °C	25 min	3 hours
0 °C	45 min	14 hours
-5 °C *	65 min	28 hours
-10 °C *	1 h 45'	48 hours

Cartridge temperature must be between +5 and +20 °C

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Number of fixings per cartridge (400ml)

Rod Diameter (mm)	Hole Diameter (mm)	Anchor Depth (mm)	No of Fixings per 400ml Cartridge
Fixings into Solid Material -Threaded Rod 			
M8	10	80	75.5
M10	12	90	51.5
M12	14	110	34
M14	16	115	26.5
M16	18	125	21
M18	20	150	14.5
M20	24	170	7.5
M22	26	190	6
M24	28	210	5
M27	30	240	4.5
M30	35	270	2.5
M33	37	300	2.5
M36	40	330	2
M39	42	360	2
Fixings into Solid Material -Rebar 			
Ø8	12	80	47
Ø10	14	100	31
Ø12	16	120	22.5
Ø14	18	140	16.5
Ø16	20	160	13
Ø18	22	180	10
Ø20	25	200	6.5
Ø22	26	220	7
Ø24	28	240	6
Ø25	30	250	4.5
Ø26	32	260	3.5
Ø28	35	280	2.5
Ø30	35	300	3
Ø32	40	320	1.5

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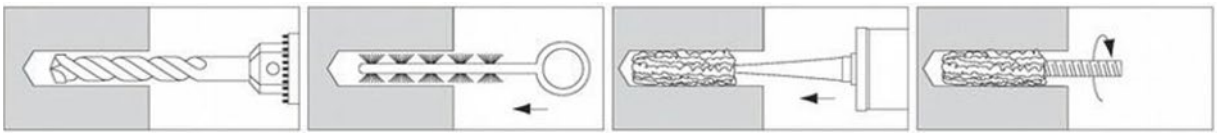
Fixings into Hollow Material

M8	12	50	56.5
M8	12	60	47
M8	12	80	35.5
M10	15	85	21.5
M10	15	100	18
M10	15	135	13.5
M10	15	140	13
M12	20	85	12
M14	20	130	8
M16	22	150	5.5
M16	22	200	4
M20	30	250	2

"WARNING: The number of fixings specified above has been calculated based on the theoretical volume required to fill the hole (or sleeve), excluding the volume of the inserted metal rod. This theoretical volume includes an additional allowance for extra material. However, the actual quantity of the product needed may vary depending on the specific conditions of the application."

Installation Data



1.Drill hole diameter to subsequent depth.
2.Clean hole using brush & blow out pump to remove debris & dust (repeat the process 3-4 times or until the hole is clear).
3.Attach nozzle to the cartridge, extrude initial resin until even colour is visible, start from the bottom of the hole, fill the hole 1/3 to 1/2 with the resin.
4.Insert the stud into the base material by hand, using a twisting motion to screw in securely, allow resin to cure, attached fixture and tighten with tool to recommend torque.

For more detailed information please contact CMT for User Manual

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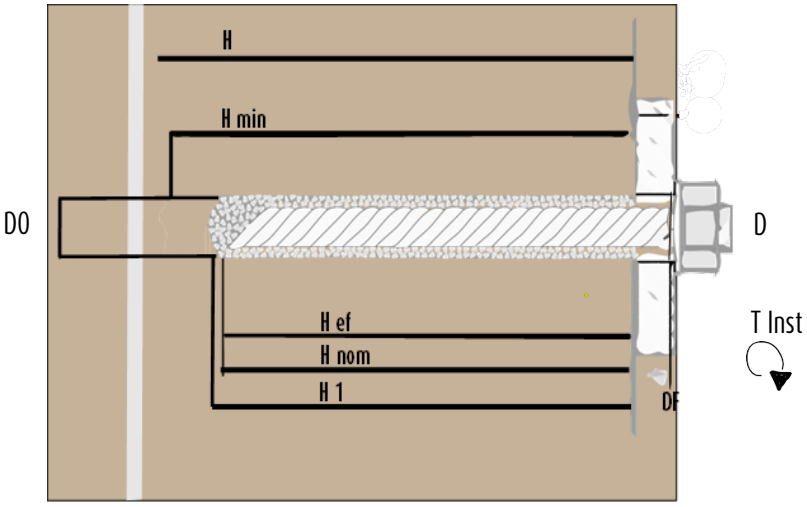

D (mm) Diameter
Do (mm) Hole Diameter
Hmin (mm) Minimum thickness of base material
Hef (mm) Effective Anchor Depth
Hnom (mm) Embedment Depth
H1 (mm) Hole Depth
Tinst (Nm) Installation Torque

Threaded Bars and Anchor Studs – Cracked & Non-Cracked

EAD 330499-02-0601
ETA - 25/0041

Setting Parameters

Threaded Rod Diameter (D)	M8	M10	M12	M16	M20	M24	M27	M30
Hole Diameter	10	12	14	18	22-24	28	30	35
Hole Depth (H1) Min	65	75	85	105	125	150	150	150
Hole Depth (H1) Med	85	95	115	130	175	215	245	275
Hole Depth (H1) Max	165	205	245	325	405	485	545	605
Embedment Depth (H nom) Min	60	70	80	100	120	145	145	145
Embedment Depth (H nom) Med	80	90	110	125	170	210	240	270
Embedment Depth (H nom) Max	160	200	240	320	400	480	540	600
Effective Anchor Depth (H ef) Min	60	70	80	100	120	145	145	145
Effective Anchor Depth (H ef) Med	80	90	110	125	170	210	240	270
Effective Anchor Depth (H ef) Max	160	200	240	320	400	480	540	600
Characteristic Spacing (min)	180	210	240	300	360	435	435	435
Characteristic Spacing (Max)	230	248	297	396	450	540	624	693
Characteristic Edge Distance Min	90	105	120	150	180	218	218	218
Characteristic Edge Distance Max	115	124	149	198	225	270	312	346
Minimum Base Thickness (H min)	100	100	110	136	168	201	205	215
Minimum Allowable Spacing	40	50	60	75	90	115	120	140
Tightening Torque (T Inst)	10	20	40	80	130	200	250	280

Load Data - Threaded Bars and Anchor Studs

Loads for a single anchor with no influence of spacing or edge distance and with a minimum of 2 x H ef (mm) of C20/25 with normal reinforcement. General safety factor included, Shear directed away from edge.

A safety factor of 1.4 is applied to increase the load.

- MIN = Load with MINIMUM Effective Anchor Depth
- MED = Load with MEDIUM Effective Anchor Depth
- MAX = Load with MAXIMUM Effective Anchor Depth

With flooded hole, reduction of the recommended load of 20%

For designs with reduced spacing, near the edge or on concrete with increased resistance, reduced thickness or dense reinforcement refer to ETA Document or to the Declaration of Performance and use the design method outlined in EOTA's Technical Report 029 or in EN 1992-4. In the same way, for anchors installed in flooded holes or at different working temperatures not stated in TDS please refer to ETA document.

CRACKED OPTION 1

MIN Load Data

Threaded Rod Diameter (D) ≥ 5.8	M10	M12	M16	M20
Effective Anchor Depth (mm)	70	80	100	120
Characteristic Tensile Load (kN)	19,8	24,6	34,4	45,3
Characteristic Shear Load (kN)	15,1	21,9	40,8	63,5
Design Tensile Load (kN)	13,2	16,4	23,0	30,2
Design Shear Load (kN)	12,1	17,5	32,6	50,8
Admissible Tensile Load (kN)	9,4	11,7	16,4	21,6
Admissible Shear Load (kN)	8,6	12,5	23,3	36,3

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MED Load Data

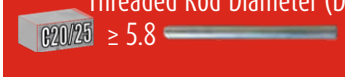
 Threaded Rod Diameter (D) ≥ 8.8	M10	M12	M16	M20
Effective Anchor Depth (mm)	90	110	125	170
Characteristic Tensile Load (kN)	25,4	37,3	48,1	69,4
Characteristic Shear Load (kN)	23,2	33,7	62,5	101,5
Design Tensile Load (kN)	17,0	24,9	32,1	46,3
Design Shear Load (kN)	18,6	27,0	50,0	81,2
Admissible Tensile Load (kN)	12,1	17,8	22,9	33,1
Admissible Shear Load (kN)	13,3	19,3	35,7	58,0

MAX Load Data

 Threaded Rod Diameter (D) ≥ 8.8	M10	M12	M16	M20
Effective Anchor Depth (mm)	200	240	320	400
Characteristic Tensile Load (kN)	46,4	67,4	125,7	163,4
Characteristic Shear Load (kN)	23,2	33,7	62,5	101,5
Design Tensile Load (kN)	30,9	44,9	83,3	108,9
Design Shear Load (kN)	18,6	27,0	50,0	81,2
Admissible Tensile Load (kN)	22,1	32,1	59,5	35,7
Admissible Shear Load (kN)	13,3	19,3	35,7	58,0

NON-CRACKED OPTION 7

MIN Load Data

 Threaded Rod Diameter (D) ≥ 5.8	M8	M10	M12	M16	M20	M24	M27	M30
Effective Anchor Depth (mm)	60	70	80	100	120	145	145	145
Characteristic Tensile Load (kN)	19,0	26,4	35,2	49,2	64,7	85,9	85,9	85,9
Characteristic Shear Load (kN)	9,5	15,1	21,9	40,8	63,5	92,0	114,5	140,0
Design Tensile Load (kN)	12,7	17,6	23,5	32,8	43,1	57,3	57,3	57,3
Design Shear Load (kN)	7,6	12,1	17,5	32,6	50,8	73,6	91,6	112,0
Admissible Tensile Load (kN)	9,0	12,5	16,8	23,4	30,8	40,9	40,9	40,9
Admissible Shear Load (kN)	5,4	8,6	12,5	23,3	36,3	52,5	65,4	80,0

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MED Load Data

Threaded Rod Diameter (D) C20/25 ≥ 5.8	M8	M10	M12	M16	M20	M24	M27	M30
Effective Anchor Depth (mm)	80	90	110	125	170	210	240	270
Characteristic Tensile Load (kN)	29.2	33.9	49.8	68.8	101.5	149.7	162.9	203.6
Characteristic Shear Load (kN)	14.6	23.2	33.7	62.5	101.5	146.5	183.5	224.5
Design Tensile Load (kN)	19.5	22.6	33.2	45.8	67.6	99.8	108.6	135.7
Design Shear Load (kN)	11.7	18.6	27	50	81.2	117.2	146.8	179.6
Admissible Tensile Load (kN)	13.9	16.2	23.7	32.7	48.3	71.3	77.6	96.9
Admissible Shear Load (kN)	8.3	13.3	19.3	35.7	58	83.7	104.9	128.3

MAX Load Data

Threaded Rod Diameter (D) C20/25 ≥ 5.8	M8	M10	M12	M16	M20	M24	M27	M30
Effective Anchor Depth (mm)	160	200	240	320	400	480	540	600
Characteristic Tensile Load (kN)	29.2	46.4	67.4	125	203	293	366.4	449
Characteristic Shear Load (kN)	14.6	23.2	33.7	62.5	101.5	146.5	183.5	224.5
Design Tensile Load (kN)	19.5	30.9	44.9	83.3	135.3	195.3	244.3	299.3
Design Shear Load (kN)	11.7	18.6	27	50	81.2	117.2	146.8	179.6
Admissible Tensile Load (kN)	13.9	22.1	32.1	59.5	96.6	139.5	174.5	213.8
Admissible Shear Load (kN)	8.3	13.2	19.3	35.7	58	83.7	104.9	128.3

Load Data - Reinforcing Bars

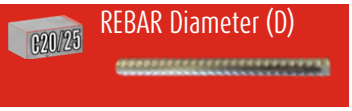
Loads for a single anchor with no influence of spacing or edge distance and with a minimum of 2 x H ef (mm) of C20/25 with normal reinforcement. General safety factor included, Shear directed away from edge.

- MIN = Load with MINIMUM Effective Anchor Depth
- MED = Load with MEDIUM Effective Anchor Depth
- MAX = Load with MAXIMUM Effective Anchor Depth

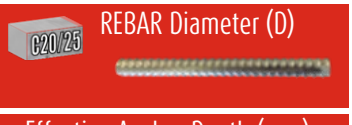
With flooded hole, 20% reduction of the recommended load is advised

NON-CRACKED OPTION 7

MIN Load Data

 REBAR Diameter (D)	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Effective Anchor Depth (mm)	60	70	80	80	100	120	150	180	200
Characteristic Tensile Load (kN)	21.1	28.6	35.2	35.2	49.2	64.7	90.4	118.8	139.1
Characteristic Shear Load (kN)	13.6	21.2	30.5	41.6	54.3	84.8	132.5	166.3	217.1
Design Tensile Load (kN)	14.1	19.1	23.5	23.5	32.8	43.1	60.2	79.2	92.8
Design Shear Load (kN)	9	14.1	20.4	27.7	36.2	56.5	88.4	110.8	144.8
Admissible Tensile Load (kN)	10.1	13.6	16.8	16.8	23.4	30.8	43	56.6	66.3
Admissible Shear Load (kN)	6.5	10.1	14.5	19.8	25.9	40.4	63.1	79.2	103.4

MED Load Data

 REBAR Diameter (D)	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Effective Anchor Depth (mm)	80	90	110	125	140	170	210	270	300
Characteristic Tensile Load (kN)	27.1	36.8	53.9	66	70.4	101.5	149.7	201.9	226.2
Characteristic Shear Load (kN)	13.6	21.2	30.5	41.6	54.3	84.8	132.5	166.3	217.1
Design Tensile Load (kN)	19.4	24.5	35.9	44	46.9	67.6	99.8	134.6	150.8
Design Shear Load (kN)	9	14.1	20.4	27.7	36.2	56.5	88.4	110.8	144.8
Admissible Tensile Load (kN)	13.8	17.5	25.7	31.4	33.5	48.3	71.3	96.1	107.7
Admissible Shear Load (kN)	6.5	10.1	14.5	19.8	25.9	40.4	63.1	79.2	103.4

MAX Load Data

 REBAR Diameter (D)	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Effective Anchor Depth (mm)	160	200	240	280	320	400	500	560	640
Characteristic Tensile Load (kN)	27.1	42.4	61.1	83.1	108.6	169.6	265.1	332.5	434.3
Characteristic Shear Load (kN)	13.6	21.2	30.5	41.6	54.3	84.8	132.5	166.3	217.1
Design Tensile Load (kN)	19.4	30.3	43.6	59.4	77.6	121.2	189.3	237.5	310.2
Design Shear Load (kN)	9	14.1	20.4	27.7	36.2	56.5	88.4	110.8	144.8
Admissible Tensile Load (kN)	13.8	21.6	31.2	42.4	55.4	86.6	135.2	169.6	221.6
Admissible Shear Load (kN)	6.5	10.1	14.5	19.8	25.9	40.4	63.1	79.2	103.4

WARNING: We assume no liability for the incorrect use of the product.

Bond resistance -Post installed rebar connections

- Bond strength based on hammer drilled holes
- Bond strength applicable to all embedment depths

Bond Resistance [N/mm²].

Bar size		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Concrete Strength ETA 25/0051	C 12/15	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	C 16/20	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	C 20/25	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	C 25/30	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	C 30/37	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7
	C 35/45	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.7
	C 40/50	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.4	2.7
	C 45/55	4.0	4.0	4.0	4.0	4.0	3.7	3.7	3.4	2.7
	C 50/60	4.3	4.3	4.3	4.3	4.0	4.0	3.7	3.4	2.7

Bar size		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Concrete Strength	C 16/20	2	2	2	2	2	2	2	2	2
	C 20/25	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2
	C 25/30	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2
	C 30/37	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2
	C 35/45	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2
	C 40/50	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2
	C 45/55	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2
	C 50/60	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2	2

FIXING IN SEISMIC
POST INSTALLED REBAR

For more information on additional materials please see ETA Document.

Storage and shelf life

- Store in a Cool, Dry Place: Keep the cartridges at a temperature between 15-25°C (59-77°F), away from direct sunlight and heat sources.
- Avoid Freezing: Ensure the storage area is not too cold, as freezing temperatures can affect the resin's chemical properties.
- Keep Upright: Store the cartridges upright to prevent leakage and maintain consistency of the resin.
- Seal Properly: Ensure the cartridge is tightly sealed to prevent exposure to air, which can cause curing or hardening of the resin.
- Shelf Life: 16 months. For optimal performance, follow the manufacturer's recommendations and use the cartridges within this time frame.