

MASONMATE® Technical Data Sheet

Polyester resin styrene free CE op.7



Approvals

- ETA 21/0527 - ETAG 001 Non – cracked concrete
- ETA 21/0526 - ETAG 029 Hollow Wall / Masonry Installations
- Tested according to LEED 2009 EQ c4.1, SCAQMD rule 1168 (2005).
- A+ Rating VOC content

Features and Benefits

- Good bond strength with High load resistance
- Used with all grades of threaded rod
- Used in concrete and masonry
- Fast gelling and curing
- Used in dry and wet conditions
- European approval for use in concrete ETAG001 Option 7
- European approval for use in masonry with nylon sleeves
- Close edge distance and small spacing
- Also suitable as a filler for gap and crack filling
- Economical fixing resin
- Extremely versatile
- Styrene free with low odour
- Close edge distance and small spacing
- Manual cleaning up to 20mm diameter and embedment depths of 240mm
- Independently tested and approved

Specific Benefits

- High loads possible
- Studs and other fixings
- Crack and gap filling
- Economical fixing resin

Description	Code
Polyester resin styrene free 165ml	0868MC165
Polyester resin styrene free 300ml	0868PR300
Polyester resin styrene free 410ml	0868EA410
Injection gun for 300ml cartridge	0868IT150
Injection gun for 410ml cartridge	0868IT380
Mixer nozzle	0868MN
Nylon sleeve with stud alignment collar for M8-M12 studs	0868S61
Nylon sleeve with stud alignment collar for M16 studs	0868S64
Wire mesh sleeve for M6 – M8 studs	0868WS57
Wire mesh sleeve for M10 – M12 studs	0868WS61
Wire mesh sleeve for M16 studs	0868WS64
Hole cleaning brush for M8 to M12 holes	0868B59
Hole cleaning brush for M12 to M16 holes	0868B63
Hole cleaning brush for M16 to M24 holes	0868B87
Blow out pump for 190mm deep holes	0868BP

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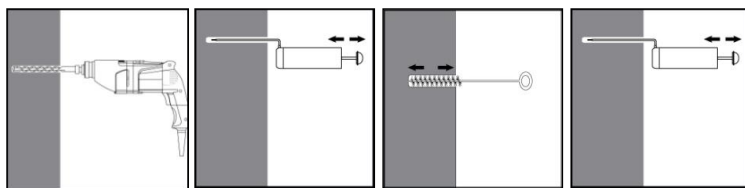
Threaded bar for solid base materials

Øx L	Tfix (mm)	Hole Ø in fixture (mm)	Wrench nut	hmin (mm)	Zinc & Clear	Dry galvanised	Stainless Steel A2
M8x110	20	9	13	hef+30mm	0868S540110	-	0868S540110SS
M10x130	25	12	17	(>100mm)	0868S560130	0868S560130G	0868S560130SS
M12x160	35	14	19		0868S580160	0868S580160G	0868S580160SS
M16x190	45	18	24		0868S620190	0868S620190G	0868S620190SS
M20x260	70	22	30	hef+2d	0868S640260	0868S640260G	0868S640260SS
M24x300	60	26	36		0868S660300	0868S660300G	-

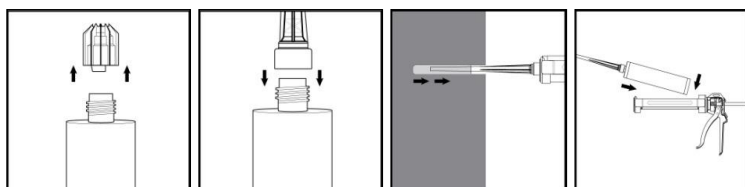
Concrete member temperature	Minimum gelling time in dry conditions (mins)	Minimum curing time in dry conditions (mins)
≥ -10 °C	50	240
≥ -5 °C	40	180
≥ +5 °C	20	90
≥ +15 °C	9	60
≥ +25 °C	5	30
≥ +35 °C	3	20

On wet concrete curing time x2

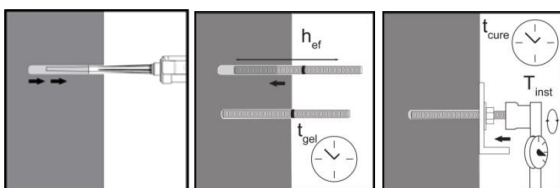
Installation on solid base material



Drill hole in the substrate to the required embedment depth using the appropriately sized carbide drill bit. Bore hole cleaning Just before setting an anchor, the bore hole must be free of dust and debris. The manual pump shall be used for blowing out bore holes up to diameters $d_o \leq 24\text{mm}$ and embedment depths up to $hef \leq 10d$. Blow out at least 4 times from the back of the bore hole, using an extension if needed. Brush 4 times with the specified brush size (see Table 6) by inserting the steel brush to the back of the hole (if needed with an extension) in a twisting motion and removing it. Blow out again with manual pump at least 4 times.



Remove the threaded cap from the cartridge. Tightly attach the mixing nozzle. Do not modify the mixer in any way. Make sure the mixing element is inside the mixer. Use only the supplied mixer. Insert the cartridge into the dispenser gun. Discard the initial trigger pulls of adhesive. Discard the first 10ml of resin.

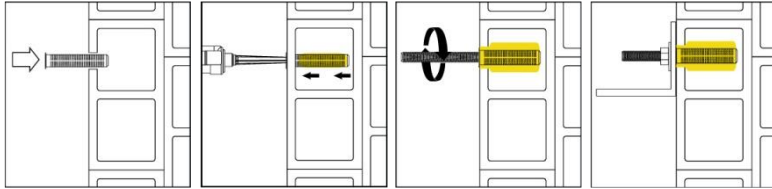


Inject the adhesive starting at the back of the hole, slowly withdrawing the mixer with each trigger pull. Fill holes approximately 2/3 full, to ensure that the annular gap between the anchor and the concrete is completely filled with adhesive along the embedment depth. Before use, verify that the threaded rod is dry and free of contaminants. Install the threaded rod to the required embedment depth during the open gel time has elapsed. The anchor can be loaded after the required curing time. The applied torque shall not exceed the values T_{max} given.

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Installation procedure on hollow base materials



Introduce the sleeve of suitable dimensions. Insert the nozzle to the end of the sleeve and inject the resin so long till the sleeve will fill into 100%. Insert the anchor, slowly with a slight twisting motion into the sleeve. Remove excess resin and leave the fixing until minimum curing (loading) times has elapsed.

Performance data on concrete C20/25 (ETA 21/0527)

Size (mm)		8	10	12	16	20	24	30
Hole diameter	Ø(mm)	10	12	14	18	22	28	35
Emb. depth	hef(mm)	80	90	110	125	170	210	280
Edge distance	C _{cr,N} (mm)	80	100	120	160	200	225	260
Spacing	S _{cr,N} (mm)	160	200	240	320	400	450	520
Characteristic Resistance	N _{Rk} (kN)	19	29.70	43.56	62.82	96.12	126.72	171.54
	V _{Rk} (kN)	9	15	21	39	61	88	142.50
Design Resistance	N _{Rd} (kN)	11.70	16.50	24.20	34.90	53.40	70.40	95.30
	V _{Rd} (kN)	7.20	12	16.80	31.20	48.80	70.40	114
Recommended Load	N _{recc} (kN)	8.36	11.79	17.29	24.93	38.14	50.29	68.07
	V _{recc} (kN)	5.14	8.57	12	22.29	34.86	50.29	81.43
Max Torque	Nm	10	20	40	80	120	160	200

Performance data on masonry (ETA 21/0526)

f_b class ≥6 MPa – density ρ_m ≥ 0.9 kg/dm³ · Temperature range -40°C/+40°C

Size (mm)		6	8	10	12
Plastic sleeve		Ø12x80		Ø16x85	
Hole drilling	do (mm)	12	12	16	16
Emb. depth	hef(mm)	80	80	85	85
Edge distance	C _{min} (mm)	100	100	100	100
Spacing	S _{min} (mm)	120	120	120	120
Characteristic Resistance Temperature range -40°C/+40°C	N _{Rk} (kN)	2			
	V _{Rk} (kN)	2			
Service Load	F (kN)	0.57			
Max Torque	Nm		2	2	2

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Performance data on masonry (ETA 21/0526)

f_b class ≥ 18 MPa – density $\rho_m \geq 1.6$ kg/dm³ - Temperature range -40°C/+40°C

Size (mm)		6	8	10	12
Hole drilling	do (mm)	8	10	12	14
Emb. depth	hef(mm)	80	80	85	85
Edge distance	C _{min} (mm)	120	120	127,5	127,5
Spacing	S _{min} (mm)	240	240	255	255
Characteristic Resistance Temperature range -40°C/+40°C	N _{Rk} (kN)		4		
	V _{Rk} (kN)		6	7	
Service Load	F (kN)		1.14		
Max Torque	Nm		2	2	2

Shelf Life and Storage

This product should be stored between +5°C & +25°C.

The Shelf life of the product is 18 months from the manufacture date.

Due to the variable nature of the substrates this data is provided for guidance only and performance is subject to the correct installation of the product. The information provided is based on the principles, formulae and safety factors set out in the installation instructions and data sheets that are believed to be correct at the time of writing.

The data and values are based on the respective average values obtained from tests under laboratory or other controlled conditions. It is the user's responsibility to use the data given in the light of conditions on site and taking into account the intended use of the products concerned. The user should check that the listed prerequisites and criteria conform with the conditions actually existing on the site. Whilst we can give general guidance and advice, the nature of the products means that the ultimate responsibility for selecting the right product for a particular application must lie with the customer.