

TECHNICAL DATA SHEET

MOEPOX EPOXYACRILATE

Denomination: **EPOXY-ACRYLATE CHEMICAL MORTAR**

Codes: **MOEPOX**

Reference: **FT MOEPOX-es**

Date: **27/10/14**

Revision: **2**

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CHARACTERISTICS

- For use with heavy loads.
- Easy assembly.
- For non-cracked concrete.
- For use with static or quasi-static loads.
- Versions in bichromated steel, stainless steel A2 and A4.
- Epoxy-acrylate resin for concrete fixings.
- Range of temperatures for use: -40°C to +80°C (long term maximum temperature +50°C).

APPLICATIONS

- Safety barriers.
- Structural applications.
- Fixing roadside fencing.
- Fixing notices, machinery, boilers, signs, billboards, etc.

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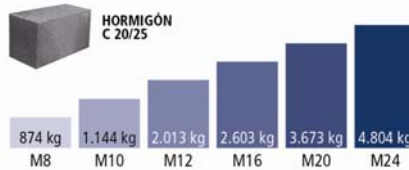


BASE MATERIAL



HORMIGÓN

RECOMMENDED TENSION RESISTANCES



VALID FOR

Varilla rosada



MEASUREMENTS

M8 - M24

DRILLHOLE CONDITION



APPLICATION EXAMPLES



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1. RANGE

ITEM	CODE	MEAS.	PHOTO	COMPONENT	MATERIAL	
1	MOEPOX300 MOEPOX410	300 ml. 410 ml.		EPOXY-ACRYLATE MORTAR	Epoxy acrylate resin. Presentation: 300 and 410 ml cartridges	12

2. ACCESSORIES

ITEM	CODE	PHOTO	COMPONENT	MATERIAL
1	MOPISSI		APPLICATION GUNS	Gun for standard 300 ml cartridges
	MOPISTO			Gun for 410 ml coaxial cartridges
	MOPISPR	 <small>Dieses Produkt wird nicht in Deutschland angeboten.</small>		Professional gun for 410 ml coaxial cartridges
2	EQ-AC EQ-A2 EQ-A4		STUDS	Threaded steel studs, class 5.8 ISO 898-1 Threaded Stainless steel studs A2-70 Threaded Stainless steel studs A4-70
3	MORCEPKIT		CLEANING BRUSHES	Kit of 3 cleaning brushes of $\varnothing 14$, $\varnothing 20$ and $\varnothing 29$ mm.
4	MOBOMBA		CLEANING PUMP	Pump for cleaning dust and drill hole fragments
5	MORCANU		MIXING NOZZLE	Plastic. Helix static mixer
6	MO-TN		NYLON SLEEVE	Plastic. Available in white or grey
7	MO-TR		METAL THREADED SLEEVE	Metal threaded sleeve M8, M10, M12, zinc plated.
8	MO-TM		METAL SLEEVE	Metal sleeve $\varnothing 12$, $\varnothing 16$ and $\varnothing 22$.

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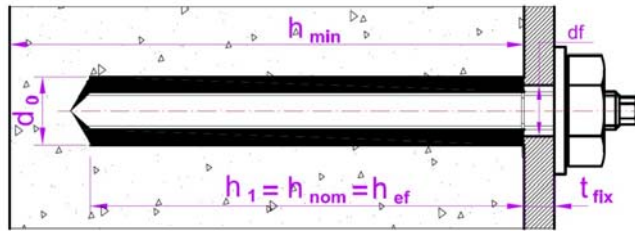
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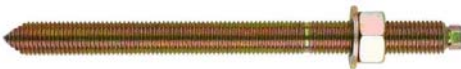

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3. INSTALLATION DATA

3.1. CONCRETE FIXINGS



MEASUREMENT		M8	M10	M12	M16	M20	M24
d ₀ : nominal diameter	[mm]	10	12	14	18	22	26
d _f : fixture hole diameter ≤	[mm]	9	12	14	18	22	26
T _{ins} : torque ≤	[Nm]	10	20	40	80	150	200
Circular cleaning brush diameter		Ø14		Ø20		Ø29	
h_{ef,min} = 8d							
h ₁ : drill hole depth	[mm]	64	80	96	128	160	192
s _{cr,N} : critical spacing	[mm]	192	240	288	384	480	576
c _{cr,N} : critical edge distance	[mm]	96	120	144	192	240	288
c _{min} : minimum distance to edge	[mm]	35	40	50	65	80	96
s _{min} : minimum spacing	[mm]	35	40	50	65	80	96
h _{min} : minimum concrete thickness	[mm]	100	110	126	158	204	244
Standard stud							
h ₁ : drill hole depth	[mm]	80	90	110	128	170	210
s _{cr,N} : critical spacing	[mm]	240	270	330	384	510	630
c _{cr,N} : critical edge distance	[mm]	120	135	165	192	255	315
c _{min} : minimum distance to edge	[mm]	43	45	56	65	85	105
s _{min} : minimum spacing	[mm]	43	45	56	65	85	105
h _{min} : minimum concrete thickness	[mm]	110	120	140	158	214	262
h_{ef,max} = 12d							
h ₁ : drill hole depth	[mm]	96	120	144	192	240	288
s _{cr,N} : critical spacing	[mm]	288	360	432	576	720	864
c _{cr,N} : critical edge distance	[mm]	144	180	216	288	360	432
c _{min} : minimum distance to edge	[mm]	50	60	70	95	120	145
s _{min} : minimum spacing	[mm]	50	60	70	95	120	145
h _{min} : minimum concrete thickness	[mm]	126	150	174	222	284	340
Bichromated Stud Code							
		EQAC08110	EQAC10130	EQAC12160	EQAC16190	EQAC20260	EQAC24300
Stainless Steel Stud Code A2 / A4							
		EQA208110 EQA408110	EQA210130 EQA410130	EQA212160 EQA412160	EQA216190 EQA416190	EQA220260 EQA420260	EQA224300 EQA424300

The h_{ef} depth value may be selected by the user ranging between h_{ef,min} = 8d and h_{ef,max} = 12d. Any intermediate values may be interpolated.

Critical distances are those where anchors in a group of anchors are not influenced by one another with regard to tension load effects. For smaller distances, down to minimum distances, corresponding reduction coefficients must be applied.

Standard studs are available for each measurement, as shown in the table.

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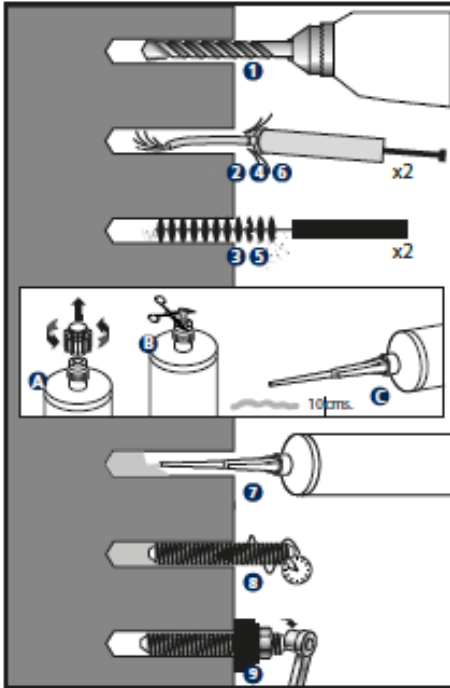
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4. PRODUCT INSTALLATION PROCEDURE

4.1. INSTALLATION IN CONCRETE



1. DRILLING

Check the concrete base is compact and porosity is insignificant.
 Suitable for wet, dry or flooded drill holes.
 Cartridge installation temperature: $\geq 5\text{ }^{\circ}\text{C}$.
 Base material installation temperature: MOEPOX $\geq +5\text{ }^{\circ}\text{C}$.
 Use drill in hammer mode.
 Drill to the specified diameter and depth values.

2 - 6. BLOW AND CLEAN

Clear the drill holes completely of dust and fragments by following the procedure shown in the picture. If the drill hole is flooded, the water must be removed before mortar is injected.

A - B* - C. OPEN CARTRIDGE

Screw the nozzle into the cartridge and place the assembly in the application gun. Squeeze on the trigger repeatedly until the mortar comes out of the nozzle in a uniform grey colour. Any iridescence indicates improper mixing. Always discard the first two doses of each cartridge: these are never to be used for fixing. **For 300 ml cartridges, cut end of bag, behind seal clip.**

7. INJECT MORTAR

Insert the nozzle to the bottom of the drill hole and apply mortar: gradually remove the nozzle, ensuring there are no air bubbles.
 Fill the hole to $\frac{1}{2}$ and $\frac{3}{4}$ of its depth.
 In the event of not fully using the cartridge, leave nozzle attached. Only change if using again and handling time has expired, remembering to discard the first two doses of mortar.

8. INSTALLATION

Introduce the stud to be installed by screwing it lightly down to the installation depth value, ensuring the mortar covers the stud thread. The introduction of the anchor must take place within the handling time. The mortar must seep from the top of the drill hole to ensure it is completely full and there are no gaps between the stud and the drill hole.

TYPE	Material Base Temperature [°C]	Handling Time [min]	Curing Time [min]
MOEPOX	min +5	18	120
	+5 to +10	12	120
	+10 to +20	6	80
	+20 to +25	4	40
	+25 to +30	3	30
	+30 to +35	2	20
	+35 to +40	1.5	15
	+40	1.5	10

9. APPLY TORQUE

Once the curing time has elapsed, apply torque, never exceeding the values indicated in the table.

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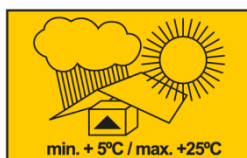
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5. STORAGE CONDITIONS

Keep the product stored in a cool, dry place, away from direct sunlight and heat sources, at an average temperature between +5 °C and +25 °C.



Shelf life of unopened cartridge: 18 months from the date of manufacture. The expiration date is indicated on the cartridge.

6. RESISTANCES

6.1. CONCRETE FIXINGS

Characteristic resistances for C20/25 concrete for an isolated anchor (without considering anchor-to-anchor or anchor-to-edge distance effects) and class 5.8 studs are shown in the table below:

		DIAMETER			M8	M10	M12	M16	M20	M24
Bichromated	Tension	$h_{ef,min} = 8d$	N_{Rk}	[kN]	19,3	25,1	43,4	64,3	85,5	108,6
		Standard stud	N_{Rk}	[kN]	24,1	28,3	49,8	64,3	90,8	118,8
		$h_{ef,max} = 12d$	N_{Rk}	[kN]	29,0	37,7	65,1	96,5	128,2	162,9
		Specific Value	T_{Rk}	[N/mm ²]	12	10	12	10	8,5	7,5
Bichromated	Shear	All depths	V_{Rk}	[kN]	<u>9</u>	<u>15</u>	<u>21</u>	<u>39</u>	<u>61</u>	<u>88</u>
		Stainless Steel	Tension	$h_{ef,min} = 8d$	N_{Rk}	[kN]	19,3	25,1	43,4	64,3
Standard stud	N_{Rk}			[kN]	24,1	28,3	49,8	64,3	90,8	118,8
$h_{ef,max} = 12d$	N_{Rk}			[kN]	29,0	37,7	65,1	96,5	128,2	162,9
Specific Value	T_{Rk}			[N/mm ²]	12	10	12	10	8,5	7,5
Stainless Steel	Shear	All depths	V_{Rk}	[kN]	<u>13</u>	<u>20</u>	<u>30</u>	<u>55</u>	<u>86</u>	<u>124</u>

1 kN ≈ 100 kg

For tension resistance values for intermediate depths, apply the following formula: $N_{Rk} = T_{Rk} \pi d h_{ef}$
The values underlined and in italics indicate steel failure. The other values indicate pull-out failure.

These are coefficients for tension loads in high-resistance concrete types:

C30/37	C40/50	C50/60
1,12	1,19	1,30

Recommended Safety Values

SAFETY COEFFICIENTS		RESISTANCE REDUCTION COEFFICIENT		SAFETY COEFFICIENT FOR LOADS
		Pull-out Failure	Steel Failure	
Bichromated	Tension	1,80	1,50	1,40
	Shear	--	<u>1,25</u>	
Stainless	Tension	1,80	--	
	Shear	--	<u>1,56</u>	

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The following documents are available through our Sales Department or on our official website: www.indexfix.com

- MOEPOX-es Safety Data Sheet.
- European Technical Approval ETE-13/0753 for use on non-cracked concrete according to ETAG 001 Guide, option 7, for M8 to M24 for use in non-cracked concrete.
- Classified A+ according to French Regulation DEVL11044875A relative to the emission of volatile pollutants for indoor use.
- LEED MOEPOX Certification of emission of volatile pollutants.
- EC Certification 1020-CPD-090-029883.
- Declaration of Performance DoP MOEPOX-en.
- INDEXCal Anchor Calculation Software.
- INDEXSOFT MOR Cartridge Calculation Needs Software.