TECHNICAL DATA SHEET

PURE EPOXY FX-E400



HIGH LOAD EPOXY ANCHOR

FX-E400 is solvent-free, epoxy resin based, two part high performance anchoring adhesive.

- PRODUCE NAME : Injection Cartridge (Pure epoxy resin)
- PRODUCT CODE : FX-E400
- SIZE : 400ML
- RATIO : 3:1
- COLOR : PART A-White
  PART B-Black
  MIXED- Gray
- Approval :

ETA 18/0074 of 19/03/2018

F30-F240

PRODUCT USAGE

For the fixing of non-expanding anchors in the following :

STRUCTURAL WORK

- ✓ Rebar / steel reinforcement anchoring in new and refurbishment works.
- ✓ Threaded rods
- ✓ Bolts and special fastening systems

MECHANICAL AND ELECTRICAL SERVICES INSTALLATION

- ✓ Anchoring of supports for ducting and equipment.

METAL WORK AND CARPENTRY

- ✓ Fixing of handrails, balustrades and supports
- ✓ Fixing of railings
- ✓ Fixing of window and door frames

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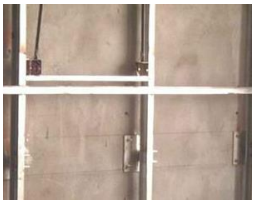
For fixing of the following substrates :

- ✓ Concrete
- ✓ Hard natural and reconstituted stone
- ✓ Hollow and solid masonry
- ✓ Steel
- ✓ Wood

ADVANTAGES

- ☑ Non-cracked concrete
- ☑ Can use in damp area
- ☑ High load capacity
- ☑ Non-sag, even overhead
- ☑ Styrene-free
- ☑ Low odor
- ☑ Non contraction after harden
- ☑ High stability
- ☑ No transportation restrictions




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TEST REPORT

PROPERTY APPRAISAL

Test Item	Test Method	Test Result
Tensile Strength (kgf/cm²)	ASTM D638-10 (Type 1 Specimen , 5mm/min)	240
Flexural Strength (kgf/cm²)	ASTM D790-10 Procedure A	507
Flexural Modulus (kgf/cm²)		49232
Compressive Strength (kgf/cm²)	ASTM D695-10	1043
Shear Strength (kgf/cm²)	Refer to ASTM D1002-10	94.8

TEST OF ANCHORS IN CONCRETE

Pressure		Destroy Haul Strength (kgf)	Safety Haul Strength (kgf)	Working Standard (mm)	
Concrete Strength		4000 psi	4000 psi	Hole Diameter	Hole Depth
Steel Strip No.	#3 (Φ10)	3600	1646	13	90
	#4 (Φ13)	5760	2879	16	115
	#5 (Φ16)	15080	4570	20	125
	#6 (Φ19)	22920	6708	25	160
	#8 (Φ25)	29586	10749	32	215
	#10 (Φ32)	34431	15046	40	300

*** For information only - not for specification purposes.***

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TECHNICAL DATA

DENSITY

- Part A: 1.70 kg/l (±0.5kg)
- Part B: 1.30 kg/l (±0.5kg)
- 1.68 kg/l (part A+B mixed) (±0.5kg)

SAG FLOW

- Non-sag, even overhead, but need to use wedges to fix rebars before curing.
  One rebar need two wedges to fix in symmetrical angle.

LAYER THICKNESS

- 5 mm max.

GEL AND LOADING TIMES

Application Temperature (℃)	Gel Time (min.)	Loading Time (hr.)
40	4	3
30	7	5
20	15	7
10	60	12

APPLICATION CONDITIONS / LIMITATIONS

SUBSTRATE & AMBIENT TEMPERATURE

- +10°C min. / +45°C max.

MATERIAL TEMPERATURE

- Must be at a temperature of between +10°C and +40°C for application.

DEW POINT

- Beware of condensation!
  Substrate temperature during application must be at least 10°C above dew point.

STORAGE CONDITION & SHELF-LIFE

- 24 months from date of production if stored properly in original unopened, sealed and undamaged packaging in cool and dry conditions at temperatures between +5°C and +25°C.
- Protect from direct sunlight.

It is normal that the cured glue material may be discolored by sunlight exposure.

All FX-E400 cartridges have the manufacture date printed on the label.

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ORDER INFORMATION

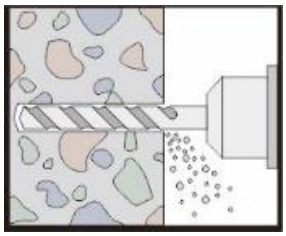
➢ SIZE :	400ml
➢ PART# :	FX-E400
➢ CASE QTY :	20 PCS/ CARTON
➢ PALLET QTY :	60 CTNS/ PALLET
➢ DISPENSING TOOL :	FX-GUN400 / WT-296C585

APPLICATION INSTRUCTIONS

➢ MIXING :	Part A : Part B = 3 : 1 by volume
➢ MAXIMUM EMBEDMENT DETH :	800MM

APPLICATION METHOD

STEP1. BORE HOLE DRILLING

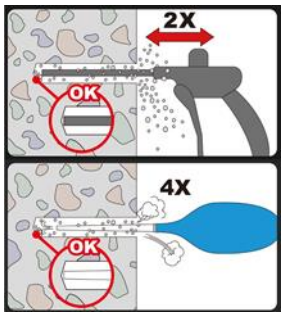


➢ Drilling of hole with an electric drill to the diameter and depth required by the selected reinforcing bar.
In case of aborted drill hole: the drill hole shall be filled with mortar.

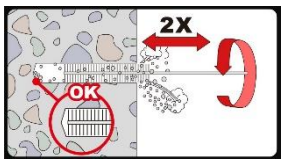
Rebar - ⌀	Drill - Ø	Nylon Brush - Ø	Steel Brush - Ø
8 mm	12 mm	14 mm	12.5 mm
10 mm	14 mm	16 mm	14.5 mm
12 mm	16 mm	18 mm	16.5 mm
14 mm	18 mm	20 mm	18.5 mm
16 mm	20 mm	22 mm	20.5 mm
20 mm	25 mm	27 mm	25.5 mm
25 mm	30 mm	34 mm	30.5 mm
28 mm	35 mm	39 mm	35.5 mm
32 mm	40 mm	45 mm	40.5 mm

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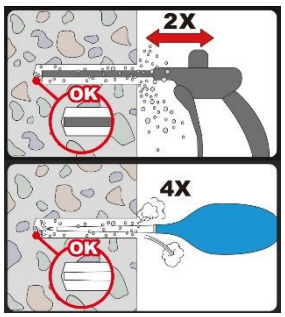
STEP2. BORE HOLE CLEANING



- Start from the bottom or back of the bore hole, blow the hole clean with compressed air (min. 30 seconds) or a hand pump a minimum of two times. If the bore hole ground is not reached an extension shall be used.
- For bore holes deeper than 200 mm, or bore hole diameter bigger (≧) than 35 mm, compressed air (min. 30 seconds) must be used.

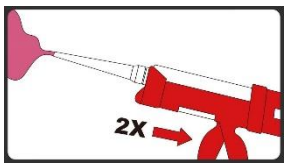


- Brush the hole with an appropriate sized wire brush a minimum of two times. If the bore hole ground is not reached with the brush, a brush extension shall be used. The diameter of wire brush is equal to the hole diameter.

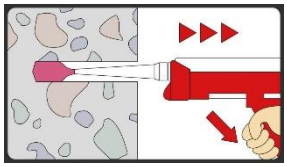


- Finally blow the hole clean again with compressed air (min. 30 seconds) or a hand pump a minimum of two times. If the bore hole ground is not reached an extension shall be used.
- For bore holes deeper than 200 mm, or bore hole diameter bigger (≧) than 35 mm, compressed air (min. 30 seconds) must be used.

STEP3. BORE HOLE FILLING



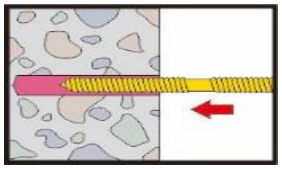
- Prior to dispensing into the anchor hole, squeeze out separately the mortar until it shows a consistent grey color, and discard non-uniformly mixed adhesive components.



- Start from the bottom or back of the cleaned anchor hole fill the hole up to approximately two-thirds with adhesive. Slowly withdraw the static mixing nozzle as the hole fills to avoid creating air pockets.
- For overhead and horizontal installation and bore holes deeper than 200 mm a piston plug and the appropriate mixer extension must be used.

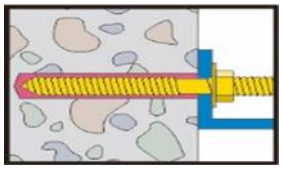
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STEP4. REBAR / ANCHOR INSERTING

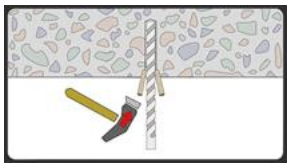


- Push the reinforcing bar into the anchor hole while turning slightly to ensure positive distribution of the adhesive until the embedment depth is reached.
- The rebar should be free of dirt, grease, oil or other foreign material.

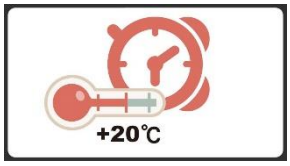
Important: the anchor must be placed within the open time.



- Be sure that the rebar is inserted in the bore hole until the embedment mark is at the concrete surface and that excess mortar is visible at the top of the hole. If these requirements are not maintained, the application has to be renewed.
- During the resin hardening time the anchor must not be moved or loaded.



- For overhead installation, it must fix with wedges at embedded part.



- Observe gelling time. Attend that the gelling time can vary according to the base materialtemperature (see curing time table). It is not allowed to move the rebar after gelling time has elapsed.
- Allow the adhesive to cure to the specified time prior to applying any load. Do not move or load the rebar until it is fully cured (attend curing time table). After full curing time has elapsed, the add-on part can be installed.

HEALTH AND SAFETY INFORMATION

- For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

FINAL EDITING DATE : 2022/08/15

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