



ULTRACHEM

For Construction Chemicals

Ultra - Fix EP

Epoxy resin free solvent
Anchoring Systems grouts

ألترا فيكس إي بي

مونه إيبوكسية من مركبين

لتزريع وتثبيت الأشابر.

Epoxy & Cementitious Grout



Ultra - Fix EP

Non-Shrink Epoxy adhesive Mortar and Grouting Compound and for fixing steel bars into concrete .

Uses

Ultra - Fix EP mix and place grouts are used for :

High strength corrosion resistant anchoring of bolts and bars into concrete, rock, masonry or brick work where high speed of installation and really application of load is required. Permanent installation of reinforcement starter bars, foundation bolts, base plats, and safety fences, railways tracks, tie back anchors, To fill cracks and cavities in concrete elements and To fill the joints between anti-acid tiles.

Advantages

- Rapid strength gain.
- Vibration resistant.
- Corrosion resistant.
- Non expansive.
- Shrinkage free.
- Good chemical resistance.
- Good adhering to concrete and steel.
- Anti-fungus and anti-bacteria.
- Can be placed under water.

Description

Ultra - Fix EP is adhesive mortar is pre-filled medium viscosity and solvent free, two components product on the basis of modified epoxy resin with an appropriate hardening system.

Standards Compliance

Ultra - Fix EP Complies with ASTM C 881, BS EN 12004, ES 4118.



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Properties

Color	: Grey		
Solid content	: 100 %		
Density	: 1.95 ± 0.02 kg/L		
Mixing ratio A:B (by weight)	: 12 : 1		
Pot life	: 2 hours		
Initial setting time	: 8 hours		
Final setting time	: after 24 hours (for light loads)		
Full hardness	: after 7 days (for full loads)		
Min. application temp.	: 15°C		
Compressive strength (ASTM D 695)	: > 800 kg/cm ²		
Flexural strength (ASTM D 790)	: > 400kg/cm ²		
Punching sheet strength(ASTH D732)	: > 250 kg/cm ²		
Punching sheet strength(ASTH D732)	: > 250 kg/cm ²		
Adhesive strength on concrete (ASTM C 882)	: 103 kg/cm ²		
Gel time	Temp	Gel time	Minimum time before
	°c	(mins)	load (hours)
	20	80	7
	30	40	3
	40	15	1

Chemical Resistance

Sulphuric acid	50%	Excellent
Hydrochloric acid	20%	Excellent
	25%	Good
Phosphoric acid	50%	Good
Nitric acid	10%	Excellent
	20%	Good
Acetic acid	5%	Excellent
	20%	Good

(Immersion time 7 days)

Sodium hydroxide 50%	Excellent	
Potassium hydroxide 50%	Excellent	
Ammonium nitrate	Excellent	
Fuels	Petrol	Excellent
	Benzin	Good
Excellent (no softening + no bubbles no change in color)		
Good (no softening + no bubbles slight change in color and weight)		



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Instructions for use

Parameters of anchor design

The high strength of the cured resin permits strong Anchors to be created.

Ultimate strength is determined by:

Strength of host material.

Length of resin bond to bar.

Hole preparation and formation.

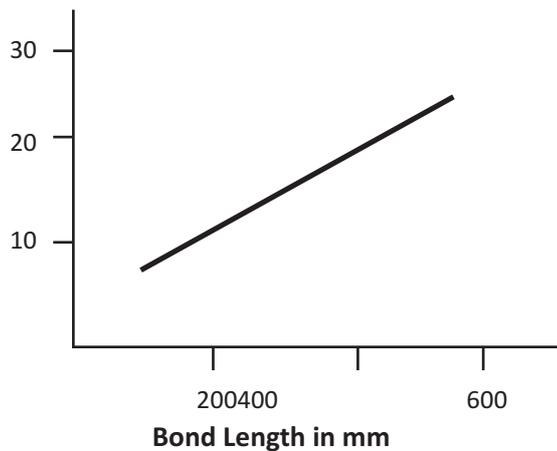
Type and dimension of bar.

Supply 5 and 10 k.g packs .

Typical Loads Attained

Concrete	20 N/mm ² unreinforced
Bar	Deformed rebar to Bs 4449
Hole	Air-flushed rotary percussive grinded

Load in Tons



Note:

The graph is an illustration for typical failure loads. Minimum safety factor of 1.5 in non-critical and of 2 in critical cases should be considered for design purposes. Where relevant, the local codes of practice or standards must also be considered in relation to anchorage length.

Hole preparation and formation

Optimum performance of **Ultra - Fix EP** grout requires rough sided dust free holes. Use of rotary percussive drills with air or water flushing is recommended. Diamond drilled holes should be under reamed unless necessary safety factors are incorporated. Cast holes should preferably be inverse dovetail configuration. If parallel-sided holes are cast they should be rough to provide adequate keying.

Bar preparation

All bars should preferably be degreased and all flaky rust removed.



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Mixing

A complete pack of resin and catalysed filler should be mixed in one operation. Mixing may be carried out manually or mechanically. When a smooth, even consistency is achieved, the grout is ready for use and should be placed well within the gel time of the grout (See properties). Packs have been designed to produce practical and economic volumes of grout. Do not attempt to mix partial pack.

Installation

Ultra - Fix EP: Using the calculated volume of grout based on table 1, the grout should be poured steadily into the prepared holes. The anchor bar is then pressed into the hole to the required depth. Slight agitation of the bar will assist in achieving a complete bond. The bar should then be left undisturbed in the required position until the resin is set. **Ultra - Fix EP:** The grout should be injected to the rear of the hole to avoid air entrapment. The thixotropic nature of **Ultra - Fix EP** will prevent significant flow of resin out of the hole.

Cleaning

Any mixing drums, pumps, etc. should be cleaned within the pot life of the grout. **Ultra - Solvent** is available for this purpose.

Estimating

Supply

Ultra - Fix EP: 1, 5 Kg pack.

Yield

Ultra - Fix EP: 2.5 Litre/5kg.

Quantity estimating guide

Table indicates volume of **Ultra - Fix EP** grout in cm³ / 100 mm bond.

Volume of grout for bolt diameter for every 100mm depth.

Hole Diameter mm	12	16	20	25	32	38	44	51
20	25							
25	50	40	25					
32	80	70	60	40				
38		100	100	75	45			
45			150	130	100	70		
51				180	150	120	75	
57				235	200	170	130	80
64				300	280	250	200	160
76					425	400	350	300



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Precautions

Fire resistance and creep: At operating temperatures above 40°C. The creep of **Ultra - Fix EP** resin under load may become significant. Resin anchors should not be used where structural load bearing performance has to be maintained in anchors subjected to fire conditions.

Health and safety

Confined areas must be well ventilated and no naked flames allowed. Contact with the skin should be avoided as certain sensitive skins may be affected by contact with the polyester resin. In such cases if contact with the resin occurs, the skin should be washed immediately with soap and water, not solvent. Gloves and barrier creams should be used when handling these products. Eye contamination must be immediately washed with plenty of water and medical treatment sought.

Storage

Shelf life

Ultra - Fix EP has a shelf life of 2 years.

Storage Conditions

kept in original packaging. High temperature and humidity storage may reduce Shelf life of product.



Quality You Can Trust

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المنطقة الصناعية - أبو رواش - الكيلو 26
طريق القاهرة الإسكندرية الصحراوي
شارع عادل والي - قطعة رقم 91



ألترا فيكس إي بي

مونه إيبوكسية من مركبين لتزريع وتثبيت الأشاير.

وصف المنتج

مونه إيبوكسية من مركبين خالية من المذيبات غير قابلة للإنكماش تستعمل لتزريع وتثبيت الأشاير.

الإستعمالات

- يستعمل **ألترا فكس إي بي** في الربط والتثبيت الإنشائي في:-
- أشاير حديد التسليح وجوائط الحوائط و مسامير تثبيت الماكينات.
- تثبيت المسامير أو القضبان الحديدية في الخرسانه.
- تثبيت شرائح الألياف الكربونية على الخرسانة والخشب.
- أعمال ترميم الخرسانة في الأماكن المعرضه للكيماويات.

المميزات

- سهل الخلط والإستخدام حيث يقلب المكونين معا جيدا ثم يستخدم.
- خالي من المذيب وعديم الرائحة.
- قوة إلتصاق عالية بمعظم أسطح المواد المختلفة.
- قوة مقاومة عالية للإنضغاط ومقاومة ميكانيكية فائقة.
- يمكن تطبيقه على الخرسانة الرطبة نسبة نسبيا.
- مقاومه عاليه للبرق والطرقي والصدمات.
- غير قابل للإنكماش ومقاومة عالية للكيماويات.

البيانات الفنية

(عند 25 درجة مئوية)

المظهر	: مادة عالية اللزوجة رمادية اللون .
الكثافة بعد الخلط	: 1.95 ± 0.02 كجم / لتر
زمن التشغيل	: 60 دقيقه بعد خلط المصلب علي الأساس.
إجهاد الضغط	: < 800 كجم / سم ² .
التعبئة	: مجموعات 1 - 5 كجم.
الصلاحية	: 12 شهر من تاريخ الإنتاج في عبواته المغلقة
التخزين	: في مكان جاف بعيدا عن التعرض لأشعة الشمس



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التطبيق والإستخدام

تحضير السطح:

- يجب أن تكون الأسطح نظيفه وخالية من العوالق والأترابه ومن الزيوت والشحوم ومن أي جزيئات حره عالقة وكذلك الماء اثناء التشغيل وأن يكون عمر الخرسانه 21 يوما على الأقل.

الخط :

- يتم تقليب عبوة الأساس جيدا حتى الحصول على قوام متجانس ويتم إضافة محتوى عبوة المصلب بالكامل إلى عبوة الأساس ويتم التقليب جيدا حتى الحصول على قوام ولون متجانس (يفضل إستخدام خلاط ذو سرعة بطيئة).

- يتم صب ألترا فكس إي بي بعد الخلط الجيد في ثقوب الأسيار أو الأسطح المراد لحامها ويجب تجنب دخول الهواء أثناء التشغيل.

معدل التغطية

حسب عمق و قطر الإشارة (سيخ الحديد).

يتم ملئ ثلث الثقب بالمادة ثم يتم زرع أسياخ الحديد بحركة دائرية ثم يتم ملئ كامل الثقب حتى تخرج الكمية الزائدة من المادة حيث يتم إزالتها بسكينة معجون ثم تسويتها باليد.



تعليمات الأمان

- يتم تنظيف أدوات التطبيق بعد إنتهاء الإستخدام مباشرة قبل الجفاف والإ سيتم التنظيف ميكانيكا بعد الجفاف.
- غير سامة طبقا لقواعد الصحة والأمان السائدة.
- يجب إرتداء الملابس الواقية المناسبة والقفازات وحماية العين ومعدات حماية الجهاز التنفسي.
- عند التلامس مع الجلد يجب الغسل فوراً بالماء والصابون وإذا حدث تلامس مع العين أو الأغشية المخاطية يجب الشطف بالماء الدافىء وإستشارة الطبيب المختص.

لمزيد من التفاصيل ارجع إلى الداتا شيت باللغة الانجليزية أو اتصل على الإدارة الفنية.

جودة تستحق الثقة



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ألتـرا كيم
لكيماويات البناء



CERTIFICATES



ULTRACHEM For Construction Chemicals



NATIONAL RESEARCH CENTRE
TAHRIR St. DOKKI, CAIRO, EGYPT
Central Unit For Analysis And
Scientific Services (CUASS)
Material Test Lab.

المركز القومي للبحوث

الدقي . القاهرة . جمهورية مصر العربية
وحدة التحاليل و الخدمات العلمية المركزية
معمل إختبار المواد



Test Report

Report No.	MOI 8526 11 2025
Client	ULTRACHEM for construction chemicals
Authority & date	Request Orders 3/11/2025
Items Tested	Ultra fix EP
Results	The detailed test results are given on the following pages of this report (4 pages).
Report Typist	* Mis. Sara Abdel Reheam – Naglaa Mohamed
Test carried	Noha Samir
and supervised by	* Mis . Fatma El – Zahraa Fikry
	* H.Eng. Ahmed Said
	* Chem. Amr El Shafey
	* Dr. Abou El Ftouh Abd El Hakem
Authorized by	Prof. Dr. Mostafa Zaki Mostafa
	* The Supervisor of ceramics, Polymer and Solid Matter Department.
	* Management Representative and Quality Assurance Manager.
Issue date	17/11/2025
Condition of Test & Issue	The test speciemen was conditioned at 23 °C with a humidity of 60 % and the needed calibrations as well as balancing of the all used machines were always done .





TO/ ULTRACHEM for construction chemicals

Dear Sir.,

With correspondence to your request dated 3/11/2025 concerning the testing of Ultra fix EP , We would like to inform you that the all following needed tests were carried out which namely :-

1- Pull off strength test to concrete according to ASTM D7234

We would like to inform you that the all needed tests were carried out taking into consideration the following conditions :

1-In all mechanical properties GALDABINI –QUASAR 600- Testing Machine was used This type of GALDABINI has a self calibration , zero adjusting and automatic balance , which are done daily before testing or during testing this testing instrument is accompanied by a highly reliable system for evaluating the mechanical properties.

2-Weighing Balance with tolerance ± 0.0001 g was used in determining the weights

3-Measuring drum of sensitivity ± 0.01 mm was used for dimensions evaluation .

4- The all used Machinery and the apparatus were calibrated periodically .

The following table gives the obtained results representing the sample produced by your company.





Pull off strength test to concrete after 7days according to ASTM D7234

On a Sample of Ultra fix EP

Delivered from ULTRACHEM for construction chemicals

<i>No.</i>	<i>Pull off strength (N/mm2)</i>	<i>The mean value (N/mm2)</i>	<i>Failure mode</i>
1	2.12	2.06	A
2	2.21		
3	2.01		
4	1.95		
5	2.01		

Conclusion: the Sample have very good adhesion to concrete, failure happened in concrete and the coating pull out with big section of concrete (mode failure A)





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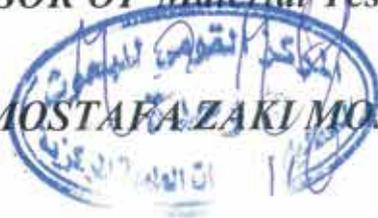
This report was given to you representing only the results for testing sample of Ultra fix EP , Delivered from ULTRACHEM for construction chemicals , These results and conclusions were given to you without any responsibility on THE CERAMICS, POLYMERS AND SOLID MATTER DEP. of THE MATERIAL TEST LAB in THE NATIONAL RESEARCH CENTRE for pick up the samples to be tested.

*Head of Director of The Board of Central Department
for Scientifical Analysis and Tests*

&

SUPERVISOR OF Material Test Lab

PROF.DR. MOSTAFA ZAKI MOSTAFA





Test Report

Report No.	MOI 8527 11 2025
Client	ULTRACHEM for construction chemicals
Authority & date	Request Orders 3/11/2025
Items Tested	Ultra fix EP
Results	<i>The detailed test results are given on the following pages of this report (3 pages)</i>
Report Typist	* Mis. Naglaa Mohamed-Sara Abdel Reheam
Test carried by	Noha Samir
	* Mis . Fatma El Zahraa Fikry
	* H.Eng. Ahmed Said
	* Chem. Amr El Shafey
	* Dr. Abou El Ftouh Abd El Hakem
Authorized by	Prof. Dr. Mostafa Zaki Mostafa
	* The Supervisor of ceramics, Polymer and Solid Matter Department.
	* Management Representative and Quality Assurance Manager.
Issue date	17/11/2025
Condition of Test & Issue	<i>The test speciemen was conditioned at 23 °C with a humidity of 60 % and the needed calibrations as well as balancing of the all used machines were always done .</i>





To / ULTRACHEM for construction chemicals

Dear Sir.,

With correspondence to your request dated 3/11/2025 concerning the testing sample of Ultra fix EP , We would like to inform you that the all following needed tests were carried out which namely:

1- Pull –out strength test according to ASTM C900

We would like to inform you that the needed test was carried out taking into consideration the following conditions :

1- In all mechanical properties GALDABINI – QUASAR 600 – Made In Italy Universal Testing Machine was used This type has a self calibration , zero adjusting and automatic balance , which are done daily before testing or during testing this testing instrument is accompanied by a highly reliable system for evaluating the mechanical properties .

2-Measuring drum of sensitivity $\pm 0.01mm$ was used for dimensions evaluation.

3- All used Machineries and apparatuses were calibrated periodically.

The following table gives the obtained results representing the sample delivered from your company .

Pull – out strength test on steel bar from concrete by use

Ultra fix EP after 7days according to ASTM C900

Steel bar diameter (mm)	Depth (Cm)	Pull out load (Kg)	mean (Kg)
16	16	4951	5461
		5821	
		5611	
18	18	6921	6739
		6516	
		6781	





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Head of Director of The Board of Central Department
for Scientific Analysis and Tests

&

SUPERVISOR 17
OF CERAMICS, POLYMER AND
SOLID MATTER DEPARTMENT

PROF.DR. MOSTAFA ZAKI MOSTAFA





ULTRACHEM

For Construction Chemicals



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