



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

**المركز القومي للبحوث**  
الدقى . القاهرة . جمهورية مصر العربية  
وحدة التحليل والخدمات العلمية المركزية  
معمل اختبار المواد



# Test Report

<b>Report No.</b>	<b>MO1 0835 02 2019</b>
<b>Client</b>	<b>Tri chem construction chemicals</b>
<b>Authority &amp; date</b>	<b>Request Orders 24/2/2019</b>
<b>Items Tested</b>	<b>Tri-Fix 444</b>
<b>Results</b>	The detailed test results are given on the following pages of this report ( 5 pages) .
<b>Report Typist</b>	* <b>Mis. Naglaa Mohamed-Sara Abdel Reheam</b>
<b>Test carried by</b>	<b>Noha Samir</b> * <b>Mis . Fatma El Zahraa Fikry</b> * <b>H.Eng. Ahmed Said</b> * <b>Chem. Amr El Shafey</b> * <b>Dr. Abou El Ftouh Abd El Hakem</b>
<b>Authorized by</b>	<b>Prof. Dr. Mostafa Zaki Mostafa</b> * <b>The Supervisor of ceramics, Polymer and Solid Matter Department.</b> * <b>Management Representative and Quality Assurance Manager.</b>
<b>Issue date</b>	2/4/2019
<b>Condition of Test &amp; Issue</b>	The test specimen 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 .

(1/5-0835)





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## **To / Tri chem construction chemicals**

**Dear Sir.,**

With correspondence to your request dated 24/2/2019 concerning the testing sample of Tri-Fix 444 , We would like to inform you that the all following needed tests were carried out which namely:

- 1- Initial tensile adhesion strength test after 28 days (Regular condition) according to EN 1348
- 2- Tensile adhesion strength test after 14 days water immersion according to EN 1348
- 3- Tensile adhesion strength test after 72 hrs heat ageing at 70°C according to EN 1348
- 4- Open time test according to EN 1346
- 5- Vertical slip test according to EN 1308

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  $\pm 0.01\text{mm}$  was used for dimensions evaluation.
- 3- On heating a Memmert West Germany oven was used .
- 4- Weighing Balance with tolerance  $+ 0.0001\text{ g}$  was used in determining the weights .
- 5- JSR digital water bath model JSWB - 30T made in Korea .
- 5- All used Machineries and apparatuses were calibrated periodically

The following tables give the obtained results representing the sample delivered from your company .



2019

(2/5-0835)





*Test results on a sample of Tri-Fix 444*

*Delivered from Tri chem construction chemicals*

*1- Initial tensile adhesion strength test after 28 days*

*(Regular condition) - according to EN 1348*

No.	Results (N/mm <sup>2</sup> )	The mean value (N/mm <sup>2</sup> )	EN 12004 C1 limit (N/mm <sup>2</sup> )
1	0.51	0.52	≥ 0.5
2	0.48		
3	0.57		
4	0.52		
5	0.51		

\* Failure pattern CF-A

*2- Tensile adhesion strength test after 14 days water immersion*  
*according to EN 1348*

No.	Results (N/mm <sup>2</sup> )	The mean value (N/mm <sup>2</sup> )	EN 12004 C1 limit (N/mm <sup>2</sup> )
1	0.57	0.57	≥ 0.5
2	0.59		
3	0.56		
4	0.58		
5	0.53		

\* Failure pattern CF-A



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*Test results on a sample of Tri-Fix 444*

*Delivered from Tri chem construction chemicals*

*3- Tensile adhesion strength test after 72 hrs heat ageing at 70°C*

*according to EN 1348*

No.	Results (N/mm <sup>2</sup> )	The mean value (N/mm <sup>2</sup> )	EN 12004 C1 limit (N/mm <sup>2</sup> )
1	0.51	0.47	≥ 0.5
2	0.48		
3	0.44		
4	0.46		
5	0.47		

\* Failure pattern CF-A

*4- Open time test according to EN 1346*

Open time = 63 min

*5- Vertical slip test according to EN 1308*

Vertical slip = 0.48 mm



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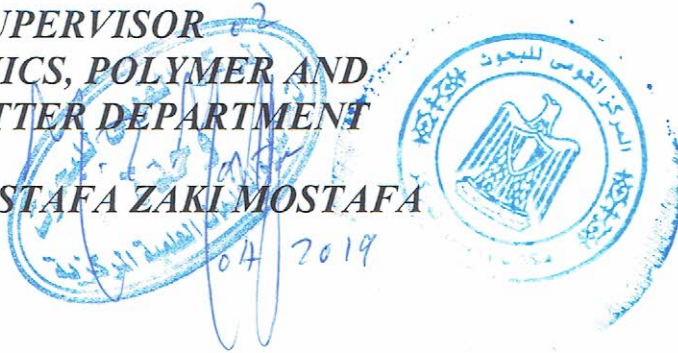
*This report was given to you representing only the results for the testing sample of Tri-Fix 444 , Delivered from Tri chem construction chemicals , These results and conclusions were given to you without any responsibility on **THE CERAMICS, POLYMERS AND SOLID MATTER DEP. of THE MATERIAL TEST LAB in 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 CERAMICS, POLYMER AND  
SOLID MATTER DEPARTMENT**

**PROF.DR. MOSTAFA ZAKI MOSTAFA**



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