



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 التحاليل والخدمات العلمية المركزية
معمل اختبار المواد



Test Report

Report No.	MO1 1897 09 2019
Client	Tri chem construction chemicals
Authority & date	Request Orders 11/9/2019
Items Tested	Tri Coat 1001 F
Results	The detailed test results are given on the following pages of this report (6 pages).
Report Typist	* Mis. Sara Abdel Rehim – Naglaa Mohamed
Test carried and supervised by	* Mis . Fatma El – Zahraa Fikry * H.Eng. Ahmed Sayed * 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	5/11/2019
Condition of Test & Issue	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 .

(1/6-1897)

شارع التحرير - الدقى - القاهرة

مباشر ٣٣٣٨٧٨٠٣
وفاكس ١٤٢٤

داخلى ١٨١٠
١٤٢٤

٣٣٣٧١٦١٥ - ٣٣٣٧١٣٦٢
٣٧٦٠٧٥٤١ - ٣٣٣٥٥١٩٢



E-mail: nrc1302a@yahoo.com



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 التحاليل والخدمات العلمية المركزية
معمل اختبار المواد



To / Tri chem construction chemicals

Dear Sir.,

With correspondence to your request dated 11/9/2019 concerning the testing Sample of Tri Coat 1001 F , We would like to inform you that the all following needed tests were carried out which namely :-

1- Bond Strength Test to concrete according to ASTM D4541

2- Bond Strength Test to steel according to ASTM D4541

3- Abrasion resistance test according to ASTM D4060

4- Heat resistance test

5- Freeze resistance test

6- Anti Microbial Test according to ASTM G21 , ASTM E2180

7- Chemical Resistance test for 7days at 23°C according to ASTM C267

** With the supervision of the unit of the Consulting Service For Virus Researches and Bioassays.*

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+0.0001gwas used in determining the weights

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

4- Taber Model 505 DUAL ABRASER Tester

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

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



(2/6-1897)

شارع التحرير- الدقى - القاهرة

مباشر ٣٣٣٨٧٨٠٣
وفاكس ١٤٢٤

داخلى ١٨١٠
١٤٢٤

٣٣٣٧١٦١٥ - ٣٣٣٧١٣٦٢
٣٧٦٠٧٥٤١ - ٣٣٣٥٥١٩٢



E-mail: nrc1302a@yahoo.com



Test Results On a Sample of Tri Coat 1001 F

Delivered from Tri chem construction chemicals

1- Bond Strength Test to concrete according to ASTM D4541

No.	Bond St. (N/mm ²)	The mean value (N/mm ²)
1	1.45	1.39
2	1.38	
3	1.33	

* Failure to concrete

2- Bond Strength Test to steel according to ASTM D4541

No.	Bond St. (N/mm ²)	The mean value (N/mm ²)
1	2.97	3.05
2	3.03	
3	3.15	

3- Abrasion resistance test according to ASTM D4060

No. of cycle	Used wheel	Load (g)	Weight loss (mg)
1000	CS 17	1000	123

(3/6-1897)





Test Results On a Sample of Tri Coat 1001 F

Delivered from Tri chem construction chemicals

4- Heat resistance test

<i>Temp.</i> (°C)	<i>Time</i> (hrs)	<i>Result</i>
120	24	<i>Effected with colour change</i>

5- Freeze resistance test

<i>Temp.</i> (°C)	<i>Time</i> (hrs)	<i>Result</i>
-30	24	<i>No effected</i>

6- Anti Microbial Test according to ASTM G21 , ASTM E2180

<i>E.coli</i> (ATCC 1229)	<i>Salmonella</i> <i>Typhimurium</i>	<i>Listeria</i> <i>monocytogenes</i> (ATCC 6538)	<i>Staphylococcus</i> <i>aureus</i> (ATCC 6538)	<i>Aspergillus Niger</i> ATCC 9642
+	+	+	+	+

(+) Low Effect (-) No effect



(4/6-1897)





Test Results On a Sample of Tri Coat 1001 F

Delivered from Tri chem construction chemicals

7- Chemical Resistance test for 7days at 23°C

according to ASTM C267

<i>No</i>	<i>Chemicals</i>	<i>Effect</i>
1	Hydrochloric acid 10%	No Effect
2	Hydrochloric acid 30%	Color change
3	Sulfuric acid 10%	No Effect
4	Sulfuric acid 30%	Color change
5	Acetic acid 10%	No Effect
6	Sodium hydroxide 50%	No Effect
7	Potassium hydroxide 50%	No Effect
8	Sodium chloride 50%	No Effect





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



This report was given to you representing only the results for testing Sample of Tri Coat 1001 F , 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 .

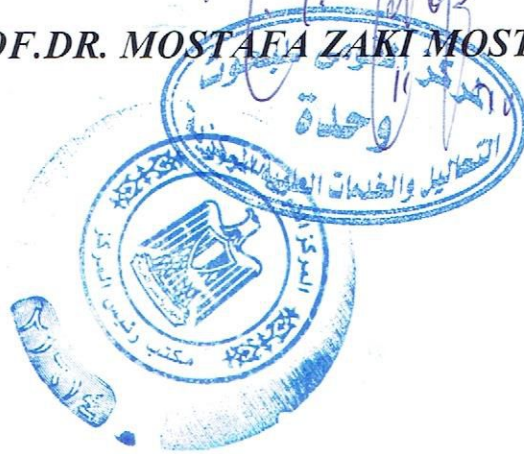
These results represent only the delivered sample and not any stored or produced quantities for any other purpose or project, Unauthorized reproduction of this report or any copy of it by any way or for any target is prohibited.

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

&

**SUPERVISOR
OF Material Test Lab**

PROF.DR. MOSTAFA ZAKI MOSTAF



(6/6-1897)

شارع التحرير - الدقى - القاهرة

مباشر ٣٣٣٨٧٨٠٣
وفاكس ١٤٢٤

داخلى ١٨١٠
١٤٢٤

٣٣٣٧١٦١٥ - ٣٣٣٧١٣٦٢
٣٧٦٠٧٥٤١ - ٣٣٣٥٥١٩٢



E-mail: nrc1302a@yahoo.com