

## المركز القومى للبحوث

الدقس. القاهرة. جمهورية مصر العربية وحدة التحاليل والخدمات العلمية المركزية معمل اختيار المواد



Test Report

| Report No.       |  |
|------------------|--|
| Client           |  |
| Authority & date |  |

Items Tested Results

Report Typist
Test carried
and supervised by

Authorized by

Issue date

Condition of Test

& Issue

MO1 5950 07 2021

Tri-chem Construction chemicals

Request Orders Date 14/7/2021

TRI- ACRYPROOF

The detailed test results are given on the following pages of this report (4 pages)

- \* Mis. Naglaa Mohamed-Sara Abdel Reheam
- \* Mis. Fatma El Zahraa Fikry
- \* H.Eng. Ahmed Said
- \* Chem. Amr El Shafey
- \* Dr. Abou El Ftouh Abd El Hakem

Prof. Dr. Mostafa Zaki Mostafa

- \* The Supervisor of Ceramics, Polymer and Solid Matter Department.
- \* Management Representative and Quality Assurance Manager.

1/8/2021

The test speciemen was conditioned at 23 °C with a humidity of 60 % and the needed caliberations as well as balancing of the all used machines were always done.





#### To / Tri-chem Construction chemicals

#### Dear Sir.,

With correspondence to your request dated 14/7/2021 concerning the sample of TRI- ACRYPROOF, We would like to inform you that the all following needed test were carried out which namely:-

- 1- Water permeability test according to CRD C48.
- 2- Elongation test according to ASTM D412
- 3- Crack bridging test according to ASTM C1305

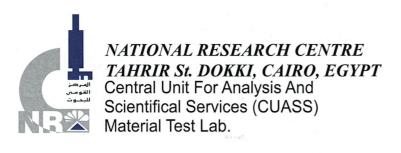
We would like to inform you that the all needed tests were carried out taking into consideration the following conditions:

1- In all mechanical properties GALDABINI - QUASAR~600 - 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  $\pm 0.01$ mm was used for dimensions evaluation.
- 3-Weighing Balance with tolerance + 0.0001 g was used in determining the weights
- 4- The all used Machinery and the apparatus were calibrated periodically .

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





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# Test results on a sample of TRI- ACRYPROOF <u>Delivered from Tri-chem Construction chemicals</u> 1- Water permeability test according to CRD C48

### 2- Elongation test according to ASTM C307

| No. | Elongation<br>(%) | Mean<br>(%) |
|-----|-------------------|-------------|
| 1   | 49.21             |             |
| 2   | 53.05             |             |
| 3   | 52.63             | 51.1        |
| 4   | 51.61             |             |
| 5   | 48.99             |             |

## 3- Crack bridging test according to ASTM C1305

| No.                   | No. of cycles | Maximum (mm)<br>movement        | Observation |
|-----------------------|---------------|---------------------------------|-------------|
| 1<br>2<br>3<br>4<br>5 | 10            | 0.5<br>0.5<br>0.5<br>0.5<br>0.5 | No failure  |

<sup>\*</sup> The sample resist the crack (0.5mm) without any observable changed.



<sup>\*</sup> The sample with thickness 300 micron un permeable to water head up to 3 bar.





This report was given to you representing only the results for the sample of TRI- ACRYPROOF, Delivered from Tri-chem Construction chemicals, These results and conclusions were given to you without any responsibility on THE CERAMICS, POLYMERS AND SOLID MATTER THE MATERIAL TEST LAB THE NATIONAL **RESEARCH CENTRE** for pick up the samples to be tested.

> Head of Director of The Board of Central Depertment for Scientifical Analysis and Tests

SUPERVISOR OF CERAMICS, POLYMER AND SOLID MATTER DE

PROF.DR. MOSTAFA