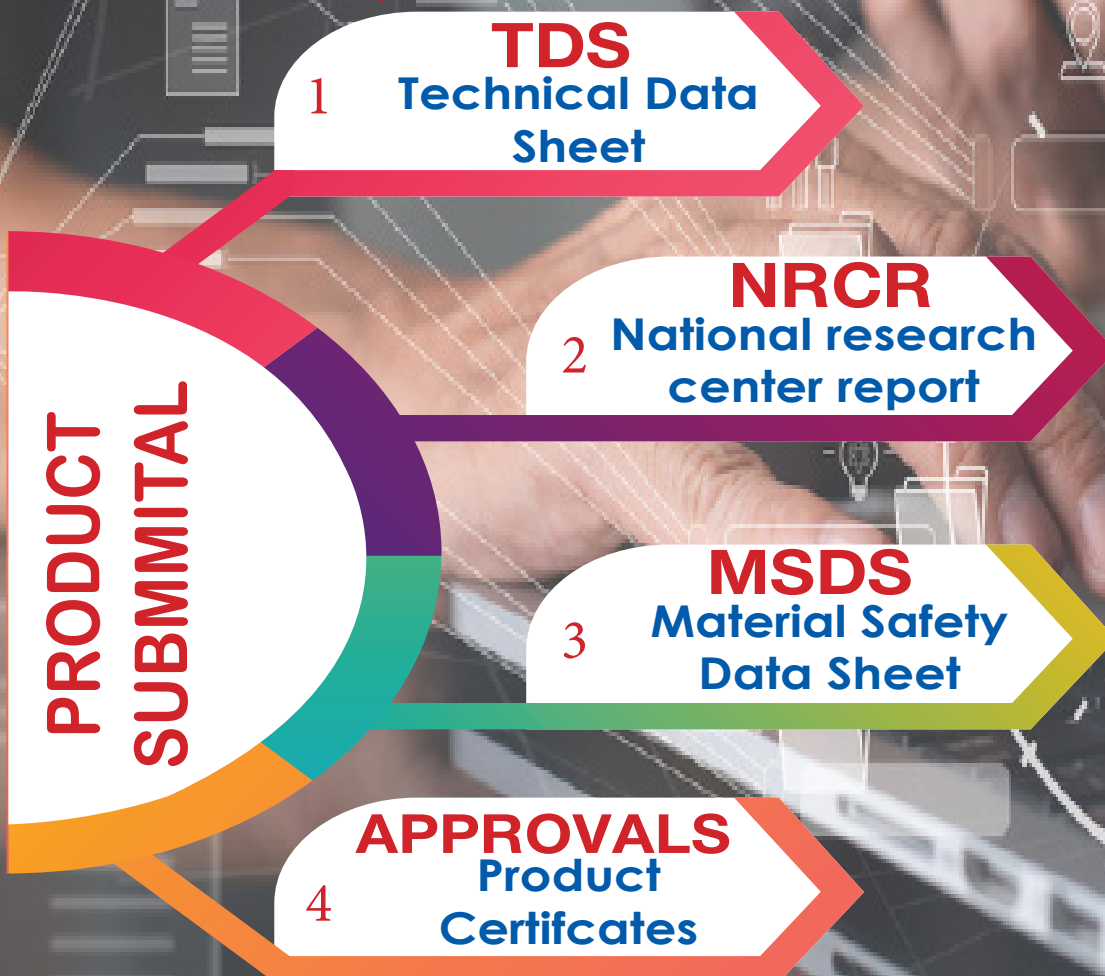


PRODUCT SUBMMITAL

TRI - Seal 307 ELASTIC

Elastomeric, cement base waterproofing and protective coating.



TRI-SEAL 307 ELASTIC

Elastomeric, cement base waterproofing and protective coating.

Description

TRI - SEAL 307 ELASTIC is a high-performance, two-component, acrylic-modified cementitious waterproofing and protective coating. It forms an elastomeric, crack-bridging membrane designed for concrete and masonry surfaces subjected to thermal movement, vibration, flexural and tensile stresses.

The material provides durable protection against water penetration, carbonation, chlorides and environmental exposure.

It can be applied by brush, roller, spray or trowel to achieve the desired texture.



Standard compliance

The product is certified by National Research Center.

- ASTM C348
- ASTM C307
- ASTM C321
- ASTM C109
- ASTM C1305

Typical uses

- Water storage tanks and potable water reservoirs.
- Swimming pools and wet areas.
- Building basements (internal & external).
- Sewage and wastewater treatment structures.
- Bridges and exposed reinforced concrete surfaces.
- Concrete pipes, culverts and water channels.
- Roof slabs.
- Anti-carbonation protective coating for concrete.

Advantages

- Forms a flexible, crack-bridging film.
- Suitable for internal and external applications.
- Effective for positive and negative waterproofing.
- Flexibility compatible with concrete movement.
- Covers honeycombed and pitted concrete effectively.
- Durable protection against carbonation and chloride attack.
- Easy application with brush, roller, spray or trowel.

Technical properties @°25c

Appearance	Comp. A=25 Kg powder form	Comp. B=10 Kg polymer
Color	Grey and White Special colors on request	
Tensile strength	> 0.8 N/mm ²	
Flexural strength	9.22 N/mm ²	
Compressive strength	35.07 N/mm ²	
Bond strength	1.83 N/mm ²	
Water resistance	Positive pressure > 5 bar	Negative pressure >1 bar
Crack bridge	NO failer > 1mm	
Pot life	= 60 minutes @ 20°C	

Recommended water-proofing systems .

Waterproofing system I	TRI-SEAL 307 ELASTIC	Waterproofing Coat 1
	TRI-SEAL 307 ELASTIC	Waterproofing Coat 2
Waterproofing system II	TRI-SEAL 307 ELASTIC	Waterproofing Coat 1
	TRI-SEAL 307 ELASTIC	Waterproofing Coat 2
	ACRYPROOF	Finish Coat
Waterproofing system III	TRI-SEAL 307 ELASTIC	Waterproofing Coat 1
	TRI- FLEZ 70	non-woven needle punched polypropylene
	TRI-SEAL 307 ELASTIC	Waterproofing Coat 2

Directions for use

Surface preparation

- All surfaces should be dry and free from contamination such as oil, grease, loose particles De-cayed matter, laitance, all traces of mold release and curing compound.
- This is best achieved by lightly grit-blasting the surface.
- It is essential that all surfaces to be treated or be soaked with clean water prior to application.

Application

- While the surface is still damp apply the mixed product to the well prepared Surface of concrete or masonry by brush, broom or spray.
- Apply two Coats as required Perpendicular.

Mixing

- Pour the liquid part in a bucket then add the powder gradually and mix with suitable Electrical mixer till getting suitable consistency.
- Small quantities can be mixed by hand in a bucket.
- Large quantities can be mixed by Mixer.

Curing

- After application, the coating must be protected from rapid drying caused by high temperature, wind, or direct sunlight.
- Premature drying may lead to surface cracking or reduced adhesion.
- Curing should be carried out by maintaining a damp environment for at least 3 - 4 days, either by light water misting or covering with polyethylene sheets to retain surface moisture.
- Avoid direct water pressure or flooding during this period.

Protection

- Once cured, the coating shall be protected against mechanical impact, abrasion, or long-term exposure to UV radiation.

Notes

- The coating should be applied in two coats to achieve a total dry film thickness of not less than 2mm.
- Areas subjected to light foot traffic should receive minimum 2mm thickness and an additional 2mm coating should be applied to areas of moderate to heavy pedestrian conditions .

Coverage

- **TRI - SEAL 307 ELASTIC** (1-1.25) kg / m² First Layer - (0.80-1) kg / m² Second Layer

Package

- **TRI - SEAL 307 ELASTIC** : - Is Pack = 35 Kg consists of Powder =25 Kg + Liquid = 10 Kg

Shelf life

- 12 months in good storage conditions .

Storage conditions

- Store the material in a cool, dry and covered place.
- Temperature should not exceed 35 oC.
- Do not expose the pails to direct sunlight and keep away from all sources of heat.

Cleaning

- All tools should be cleaned with water immediately after use.
- Hardened material can be removed mechanically.

Technical support

- For any technical support, please contact TRI-CHEM technical office or representatives.

Sustainability and environmental accountability

- TRI-CHEM's Environmental sustainability is the accountability to conserve natural resources and protect global ecosystems to support health and well-being for this a more positive approach is that accountability guides the actions of power-holders towards more socially and environmentally sustainable results.

Health and safety responsibility

- Workplace health and safety is all about sensibly managing risks to protect TRI-CHEM's workers and business.
- ISO 45001 is a systematic health and safety management is characterized by strong leadership involving managers, workers, suppliers, contractors and customers and also health and safety management is an essential part of the movement towards sustainable development.
- Spillages should be washed down immediately.
- PPE in accordance with the health and safety rules should be used during the materials application.
- For irritant effects of the non-cured material, avoid contact with skin and eyes during storage and application.

Institutional Excellence and quality performance

- Institutional excellence in TRI-CHEM refers to achieving high levels of performance, quality and effectiveness in all aspects of TRI-CHEM company's work, it involves a systematic and continuous effort to improve an organization's performance by applying best practices, innovative approaches and evidence-based strategies, institutional excellence spans various areas, such as training , research, innovation, community engagement, governance, management and sustainability, and involves setting high standards, measuring performance against these standards and continuously improving performance to meet or exceed these standards, excellence in TRI-CHEM also includes a culture of continuous improvement and learning, where everyone in the organization is committed to achieving the organization's goals, working together to find solutions to challenges and opportunities, and requires a collaborative approach that includes all stakeholders.
- All products originating from TRI-CHEM facility are manufactured under a quality management system independently certified to conform the requirements of the quality standards (ISO 9001:2015).

Disclaimer

- While TRI-CHEM guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control.
- TRI-CHEM is recommended to verify with TRI-CHEM that the product is suitable for the intended use, and that this data sheet version is the latest one.
- Any specification, recommendation or information mentioned in this product data sheet is (to TRI-CHEM's best knowledge) true and reliable.
- However, because TRI-CHEM has no influence on the application method of these products and the care taken, the company cannot accept any liability arising from the use of its products.
- TRI-CHEM's warranty is therefore limited to the quality of the materials supplied which are guaranteed against defective materials.
- TRI-CHEM may modify it without prior notice and technical characteristics are listed for guidance only.

PRODUCT SUBMMITAL

TRI - Seal 307 ELASTIC

Elastomeric, cement base waterproofing and protective coating.

NRCR
2 National research
center report





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 اختبار المواد



Test Report

Report No.	MO1 6213 12 2024
Client	Tri-CHEM Construction Chemicals
Authority & date	Request Orders 10/12/2024
Items Tested	Tri-Seal 307 Elastic
Results	The detailed test results are given on the following pages of this report (5 pages).
Report Typist	* Mis. Sara Abdel Rehim – Naglaa Mohamed
Test carried	* Mis . Fatma El – Zahraa Fikry
and supervised by	* 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	19/1/2025
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 .





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معمل اختبار المواد



To General Manager of / Tri-Chem Construction Chemicals

Dear Sir.,

With correspondence to your request dated 10/ 12 /2024 concerning the testing Sample of Tri-Seal 307 Elastic, We would like to inform you that the all following needed tests were carried out which namely :-

- 1) Compressive Strength test after 28 days according to ASTM C109.*
- 2) Flexural Strength test after 28 days according to ASTM C348.*
- 3) Bond Strength to concrete after 28 days according to ASTM C321.*
- 4) Water Permeability Test after 28 days according to EN 12390-8.*
- 5) Crack Bridge Test after 28 days 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- 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- The all used Machinery and the apparatus were calibrated periodically .

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





Test Results

On a Sample of Tri-Seal 307 Elastic

Delivered from Tri-CHEM Construction Chemicals

(1) Compressive Strength test after 28 days
according to ASTM C109

No.	Compressive St. (N/mm ²)	The mean Value (N/mm ²)
1	34.51	35.07
2	34.92	
3	34.81	
4	35.21	
5	35.91	

(2) Flexural Strength test after 28 days
according to ASTM C348

No.	Flexural St. (N/mm ²)	The mean Value (N/mm ²)
1	8.49	9.22
2	9.53	
3	9.17	
4	9.23	
5	9.66	

(3) Bond Strength test after 28 days
according to ASTM C321

No.	Bond St. (N/mm ²)	The mean Value (N/mm ²)
1	1.78	1.83
2	1.83	
3	1.81	
4	1.88	
5	1.87	





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معمل إختبار المواد



Test Results

On a Sample of Tri-Seal 307 Elastic

Delivered from Tri-CHEM Construction Chemicals

(4) Water Permeability test after 28 days according to EN 12390-8

<i>Direction</i>	<i>Time (hrs)</i>	<i>Pressure (bar)</i>	<i>Control (mm)</i>	<i>Penetration (mm)</i>
+ ve	72	5	54.8	17.6
			55.5	16.9
			54.9	17.5

(5) Crack Bridge test after 28 days according to ASTM C1305

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

*** The Sample resist the crack (0.5mm) without any observable changed.**





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معمل اختبار المواد



This report was given to you representing only the results for testing Sample of Tri-Seal 307 Elastic, 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 Scientific Analysis and Tests**

&

**SUPERVISOR
OF Material Test Lab**

PROF.DR. MOSTAFA ZAKI MOSTAF

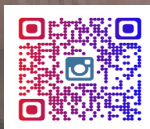


PRODUCT SUBMMITAL

TRI - Seal 307 ELASTIC

Elastomeric, cement base waterproofing and protective coating.

4 **APPROVALS**
Product
Certificates



10th of Ramadan Railway Project

TRANSMITTAL FOR APPROVAL

20

Rev. 2

DATE:

21-Jul-20

TYPE:

- S.D.- Shop drawings ☐
M.D.- Manufacturer's Data ☒
S.C.- Structural Calculation ☐
C.T.- Certificates ☐
G.T.- Guarantee ☐
MS- Method Statement ☐
OT.- Other ☐
D.S.- Details Sketches ☐

For Approval

For Information

Material Submittal: Tri Seal 307 Elastic - Tri Chem Construction Chemicals co.

Action

Code

- Approved A
Approved, Proceed As Noted B
Revise & Resubmit C
Rejected D
Information is Required FR
Returned With Comments RC

We are sending here with / under separate cover. The :-

Sample ☐ Drawings ☐ Others ☐

Discipline

DOM -OFC -KIT

DRWS., SPEC, OR BOQ. REF.

Rev.#

Qty

Description

*Type

Code

Submittal ¹ Action

MAD-QAQC-MAS-20

02

1

Elastomeric, cement base water proofing
and protective coating

MD

BOQ Ref.:
DOM 2.1.12 / 2.1.13
OFC 2.2.12 / 2.2.13
KIT 2.3.12 / 2.3.13

EL Madar Engineerig Projects

Sub Contractors: El Madar Engineering Projects

Name:
Signature

Name : Eman Samir

AVIC

Name:

Signature:

Signature:

to enter Action Codes and Remarks, and return to Contractor.

Remarks

Contractor should ensure that data sheet submitted is
read & contain last tech. specification available.
Contractor should be clarify where and how the products
be applied

Signature

7-2020

Signature

Signature

Final Action From Owner

- ☐ Approved
☐ Rejected

- ☒ Approved as noted
☐ Information is Required

- ☐ Revise and resubmit
☐ Returned With Comments

Ramadan

MATERIAL SUBMITTAL FORM

نموذج تقديم المواد / الخامات

Contract No.: PEG 1168

Package No.: MP02C

TITLE (الموضوع): نظام العزل الإسمنتي فائق الجودة للحمامات	SUBMITTAL NO.: 1168-MP02C-CN-ES-MAR-0107 (رقم النموذج)
TO (موجه الي): Eng. Walid El Gioshy Project Manager, Hill International	DATE: (تاريخ التقديم) 01 NOV , 2023
FROM (موجه من): Eng. Ashraf El Leathy Project Manager, Eid Soliman	REVISION NO: Rev. 00
ATTN. (غاية):	C/REF.:

MATERIAL SUBMISSION DESCRIPTION وصف المواد / الخامات المقدمة

Discipline: (arch)	
Description of Material: نظام العزل الإسمنتي فائق الجودة للحمامات	
Manufacturer (Name & Address): (المصنع (الاسم و العنوان): (TRI CHEM)	Supplier / Local Agent: TRI CHEM المورد / الوكيل المحلي
Specification: المواصفة /	BOQ Ref: Sec:
Description of Attachments: وصف المرفقات Data Sheet + CD	Description of Samples: وصف العينات NIL
Specification Comparison Sheet: NILL ورقة مقارنة المواصفات	
Comparison in case of Alternative Submittal: NILL المقارنة في حالة تقديم بديل	

CONTRACTOR SIGNATURE

توقيع المقاول

Date: 01 NOV , 2023

PMC RECEIVE: استلام هيل	CONSULTANT RECEIVE: rmc	RETURNED FROM CONSULTANT: تاريخ رد rmc	CONTRACTOR RECEIVE: استلام المقاول
	RECEIVED 01 NOV 2023 rmc	RECEIVED 02 NOV 2023 Hill International NNCI Project Received	RECEIVED 04 NOV 2023 Eid Soliman NNCI Project

CONSTRUCTION SUPERVISION CONSULTANT'S COMMENTS ملاحظات المشاور الإشراف

Name:

Signature:

Date:

Refer to page # 2



Plot No. 14 - Al Oula Industrial Park
Developers Area - 6th of October City,
Giza - Egypt.

قطعة ١٤ - مجمع الأولى الصناعي - منطقة
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