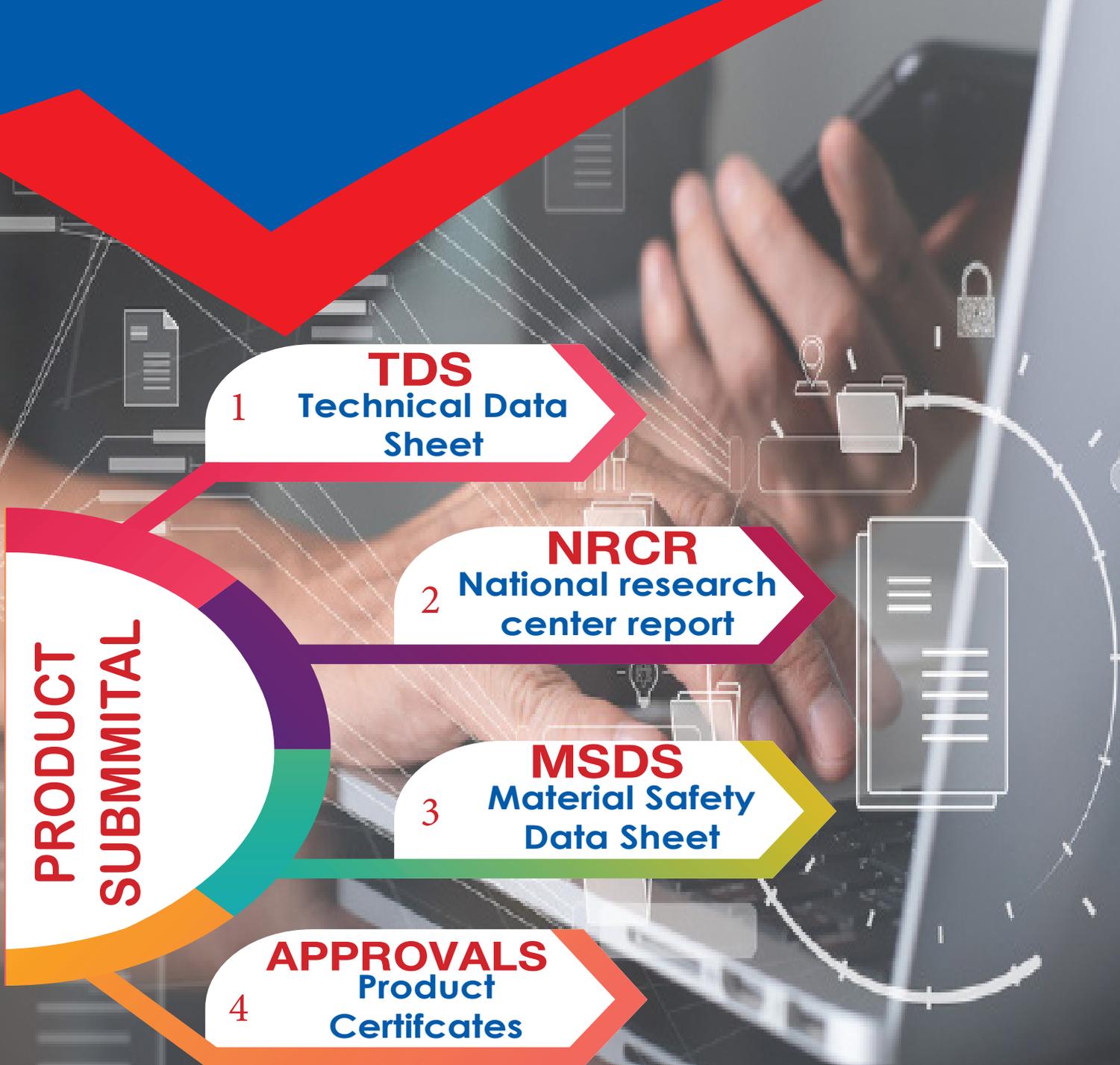


PRODUCT SUBMMITAL

TRI - METAL TOP

Impact And Abrasion Resistant, Metallic base, Monolithic Floor Hardener



TRI- METAL TOP

Metallic base cementitious, Monolithic Floor Hardener.

Description

TRI- METAL TOP is a dry shake metallic floor hardener, designed of clean and graded galvanized steel aggregates together with a modified cementitious blend.

TRI- METAL TOP when applied at the recommended application rate, provides a hard wearing, abrasion resistance surface.



Uses

- All industrial areas subjected to heavy traffic.
- Warehouses where high abrasion and impact loads are expected.
- Passenger & freight terminals.
- Iron armored joints.
- Distribution centers.
- Where wear, impact and abrasion resistance are required.

Advantages

- Supplied ready to use - no additive required.
- Provides a hard abrasion resistant surface.
- Forms monolithic bond with fresh concrete.
- Hard, dense surface resistant to oil and grease.
- Available in range of colors to improve working environment.
- Economical and easy to apply.
- Increases impact resistance to concrete surface.

Technical Data @°25c

DESCRIPTION	VALUE
Appearance	Concrete color (Grey)- Brick Red - Green.
Base	Cement, additives and metallic aggregates
Abrasion resistance ASTM D4060	107 mg loss in weight
Abrasion resistance For concrete surface	Approx. 250 %

Derictions for use

- **TRI- METAL TOP** should be applied at even application rate of 3 - 5 Kg/ m². It is recommended that the floor be marked off into bays of known area. Sufficient materials should then be laid out to meet the recommended speed rate.
- Application of **TRI- METAL TOP** should begin without delay when the base concrete has stiffened to the point light foot traffic leaves an imprint.

Directions for use

Any bleed water should now have evaporated, but the concrete should have a wet sheen. In large floors it will be necessary to work progressively behind the laying team to ensure application at the correct time the overall quality of the floor.

TRI- METAL TOP is applied in two stages:-

(1) The first application is broad cast at an even rate of 3-5 Kg/ m² onto the concrete surface. When the material becomes uniformly dark by the absorption of moisture from the base concrete, this first application can be floated .Wooden floats, or on large areas, a power may be used . It is important however, that the surface is not overworked.

(2) Immediately after floating, the remaining 2 Kg/ m² of **TRI- METAL TOP** are applied evenly over the surface at right angles to the first. Again, when moisture has been absorbed the surface can be floated in the same way as before. Final finishing of the floor using the plates of the power float can be carried out when the floor has stiffened sufficiently so that damage will not be caused. Any addition of water to wet out the surface on either the first or second application of **TRI- METAL TOP** will be detrimental to the overall quality of the floor proper curing of concrete floors treated with **TRI- METAL TOP** is essential to the physical properties of the finished floor.

The most effective method of curing is to use **Tri-Cure** which should be applied on the finished floor 10 minutes after the power floating operation has been completed.

Coverage

3 Kg/m² for light traffic

5 Kg/m² for medium traffic to heavy traffic.

Package

TRI-METAL TOP is available in packing Sack 25 kg .

Shelf Life

12 months in unopened condition if stored as Per the recommendations.

Exposure to high temperature and humidity will result in considerable deterioration of the product and reduce its shelf life.

Storage conditions

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

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.

Technical support

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

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.

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.
- TRI-CHEM may modify it without prior notice and technical characteristics are listed for guidance only.
- 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.

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).

**Factory & Head Office:**

6 October City - 4th Industrial Zone - Al Oula Industrial Zone Plot No.: 14
Tel.: (002) 011 195 48267 - Sales: (002) 010 007 88817 - (002) 011 184 87597
Technical Support Call : (002) 011 184 87880 - Email: sales@trichem-eg.com

www.trichem-eg.com



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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

الدقى . القاهرة . جمهورية مصر العربية
وحدة التحاليل والخدمات العلمية المركزية
معمل اختبار المواد



Test Report

Report No.	MO1 1068 03 2019
Client	Tri-chem Construction chemicals
Authority & date	Request Orders Date 27/3/2019
Items Tested	<u>Tri-Metal Top, according to ASTM D4060</u>
Results	The detailed test results are given on the following pages of this report (3 pages) .
Report Typist	* Mis. Naglaa Mohamed-Sara Abdel Reheam
Test carried	* Mis. Fatma El - Zahraa Fikry
and supervised by	* 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	13/5/2019
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 .

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معمل اختبار المواد



To / Tri-chem Construction chemicals

Dear Sir.,

With correspondence to your request dated 27/3/2019 concerning the sample of Tri-Metal Top , We would like to inform you that the all following needed test, were carried out which namely:-

1- Abrasion Resistance test according to ASTM D4060 .

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

- 1- In Abrasion resistance machine type Models 505 DUAL ABRASION Tester.
- 2- Weighing Balance with tolerance + 0.0001 g was used in determining the weights
- 3- The all used Machinery and the apparatus were calibrated periodically.

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

Abrasion Resistance test according to ASTM D4060

CS17 , 1000g , 1000cycle

On a sample of Tri-Metal Top

Delivered from Tri-chem Construction chemicals

No.	Loss of weight standard concert (mg)	Loss of weight Tri metal top (mg)
1	377	107
2	381	109

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2019

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*This report was given to you representing only the results for the sample of Tri-Metal Top , 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 Scientific Analysis and Tests**

&

**SUPERVISOR 13
OF CERAMICS, POLYMER AND
SOLID MATTER DEPARTMENT**

PROF.DR. MOSTAFA ZAKI MOSTAFA

(Handwritten signature and date 05/2019)

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PRODUCT SUBMMITAL

TRI - METAL TOP

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4 **APPROVALS**
Product
Certificates



شهادة

إلى من يهمه الأمر

تحية طيبة وبعد

نشهد نحن مركز كلاريتي الهندسي أن المواد التالي بيانها من إنتاج شركة تراي كيم والتي تضاف إلى خرسانة الأرضيات لتحسين كفاءتها وأدائها في ظروف التشغيل المختلفة ممتازة وتؤدي الغرض المخصص لكل منها بكفاءة عالية وهي:

- ١) تراي ميتال توب لمقاومة البري والاحتكاك وتحمل الخدمة الشاقة.
 - ٢) تراي فليكس بي يو لحشو الفواصل وهي مقاومة للكيمائيات وخاصة السولار والبنزين.
 - ٣) تراي كونكريت فيبر جي وهي ألياف من الفيبير لتقليل شروخ وانكماش الخرسانة.
 - ٤) تراي كيور دبليو بي لمعالجة أسطح الخرسانة لمنع تبخر المياه وبالتالي منع ظهور الشروخ الشعرية.
- وقد تم التوصية بهذه المواد في أرضيات محطات الوقود والأرضيات المختلفة وقد أثبتت كفاءة عالية.
- هذا وتقدم شركة تراي كيم حلول عملية وفعالة لمشاكل الخرسانات وأعمال العزل.
- وهذه شهادة منا بذلك دون أدنى مسؤولية على مكتبنا.

التوقيع/

م/ محمود المرسي محمد
مركز كلاريتي الهندسي

CSC center