

# PMCO<sup>TM</sup>

**Polymer Modified Micro  
Cementitious Overlay**

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## Who We Are

**ARABIAN ROAD TECHNOLOGY L.L.C. (ART)**, headquartered in **the United Arab Emirates**, specializes in environmental preservation by offering innovative products that exceed international standards. We rely on Canadian and German technologies, with our products undergoing rigorous testing in accredited laboratories. Our products are manufactured in the UAE using local raw materials, helping to overcome logistical challenges and contributing to a sustainable supply chain.



# PMCO<sup>TM</sup> - OL

3mm

## PMCO<sup>TM</sup>

"A protective layer with a thickness of 4-3 mm, which safeguards asphalt or concrete roads from deterioration factors, reduces the need for repeated repairs, and extends their lifespan. It is ideal for both new and old roads."



# PMCO™

Eco-friendly product that reduces environmental impact while enhancing performance.

German/Canadian road technology that has revolutionized pavement preservation products since the beginning of asphalt

## PMCO™ Features

- ✓ Ideal for repairing asphalt and concrete roads.
- ✓ Prevent water and UV rays from damaging the road surface.
- ✓ Increase the road surface friction.
- ✓ Suitable for both new and old roads.
- ✓ Resistant to high temperatures of +150°C.
- ✓ Rapid street rehabilitation.

It never occurred to anyone that you could take (3 mm) of polymer-modified cementitious overlay and make an asphalt road last for years.







### Introduction:

Asphalt pavements suffer from the effects of environmental exposure, including UV rays, water, aggressive chemical spills, and wear. Exposure to water and UV rays strips the pavement of its asphalt binder, causing fading, hardening, and brittleness (oxidation). This condition leads to cracking and subsequent crack wall erosion, loosening the asphalt aggregate and causing surface deterioration. As a result, the pavement experiences a reduced service life, requiring additional maintenance overlays every six years.



### **PMCO<sup>TM</sup> Definition**

**PMCO<sup>TM</sup>-OL** Polymer-modified cementitious thin overlays, manufactured in Dubai, United Arab Emirates, by Arabian Road Technology (ART), represent a transformative solution meticulously designed to address the countless challenges faced by traditional asphalt surfaces. **PMCO<sup>TM</sup>-OL** serve as a shield, protecting surfaces from wear for over 15 years, setting an unparalleled standard in durability and longevity. Backed by ART's confidence in their performance, ART offers a conditional warranty for material cohesion for five years, reflecting their unwavering commitment to quality and reliability.





## Why **PMCO™-OL**

**Protective Shield:** PMCO™-OL surface acts as a protective shield, safeguarding asphalt or concrete roads from water and UV damage, thereby extending their lifespan.

**Enhanced Durability:** PMCO™-OL increases road surface friction, ensuring safer driving conditions and reducing wear caused by daily traffic.

**Versatile Application:** Ideal for both new and old roads, making it a cost-effective solution for maintaining and enhancing existing infrastructure, as well as an excellent choice for new road construction projects.

**Long-Term Preservation:** Offers a proactive approach to road maintenance, protecting investments by reducing deterioration factors and minimizing the need for frequent repairs.

**Sustainable Solution:** Supports sustainability by extending the life cycle of road surfaces, reducing the environmental impact of continuous repairs and replacements.

**Road Safety:** Enhances road surface cohesion, contributing to increased safety for drivers and pedestrians, especially in adverse weather conditions.

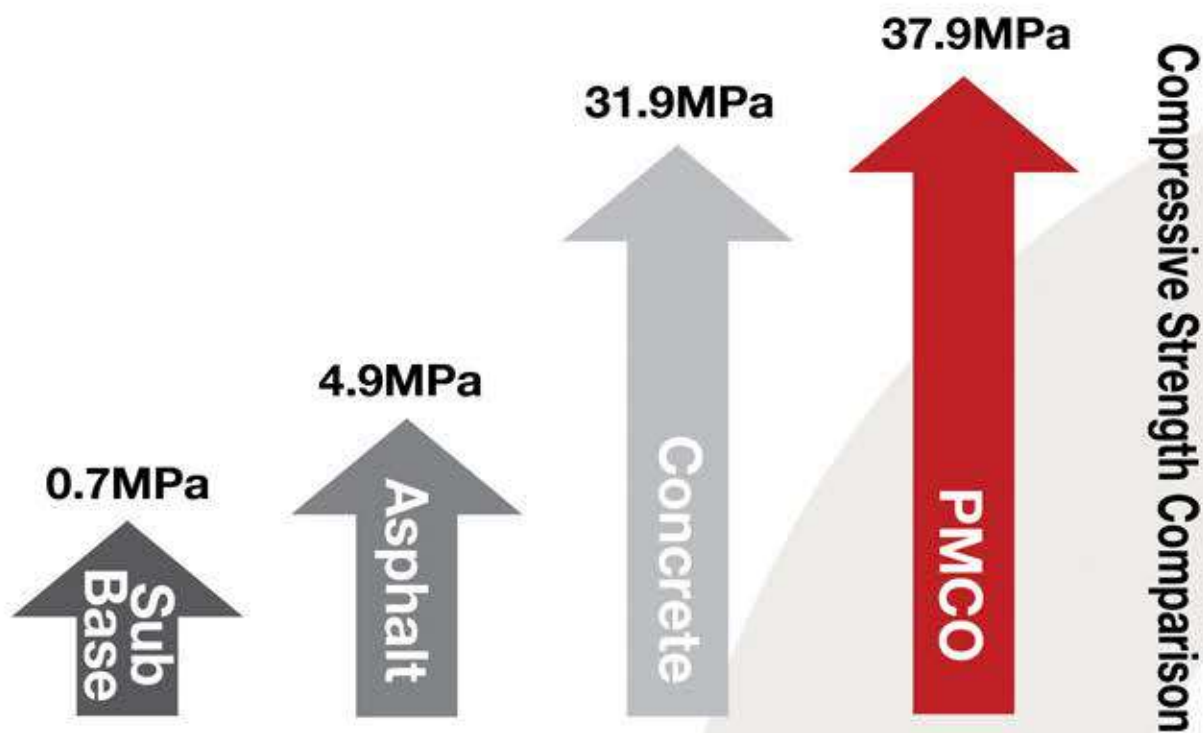
**PMCO™-OL** has been manufactured in accordance with **ISO 9001:2015** standards, ensuring strict quality standards are met at every stage.



## PMCO™-OL Numbers

PMCO	28 days of curing		
Element	N/mm2	Psi	mm3
Compressive Strength	37.90	5.500.00	-
Flexural Strength	7.80	1.132.00	-
Adhesion/Tensile Strength	2.00	290.00	-
Shear Strength	6.20	899.88	-
Abrasion Resistance	-	-	275.00

Each of the aforementioned tests underwent rigorous evaluation within the limits of an **ISO 2017-17025** accredited laboratory managed by **Wacker Global Chemicals**. The test results provided indicate the measured values under specific conditions. Variations may occur based on sample-specific factors, environmental variables, and site conditions.





# PMCO™-OL Applications

- **Highway Maintenance**  
(Entry and Exit Points).
- **Bridge and Tunnel**  
Maintenance (High-Friction  
and Reflective Surface).
- **Industrial Roads**  
Industrial Road  
Surfaces and  
Heavy-Duty Mining Streets.
- **Urban Beautification.**



## **PMCO™-OL Applications**

- **Parking Lots**  
(Various Colors Available).
- **Maintenance of Old Asphalt Streets.**
- **Road Crack Maintenance.**
- **Pothole Maintenance.**





# PMCO™-OL Applications

- **Marine Environment**  
(Surfaces Made of Aluminum, Steel, Fiberglass, Wood).
- **Refineries**  
(Oil Platforms, Pavements, Ship Landing Platforms).
- **Airports**  
Protective Layer for Taxiways, Runways, and Side Roads.





## The main features of **PMCO™-OL**

- **Multiple Color Options:** Yellow, White, Black, Blue, Red, Green, and any other custom colors.
- **Solar Reflectance:** Cools surfaces by 15-10°C, ideal for light colors.
- **High-Temperature Resistance:** Withstands temperatures exceeding +150°C.
- **Long Lifespan:** Extends the road's lifespan for years.
- **Flexible Protection:** Protects against UV rays, liquid spills, and chemicals.
- **Enhanced Road Safety:** Grooves can be added to the road surface to prevent water pooling while maintaining friction.
- **Improved Friction Strength:** Enhances surface cohesion, especially in critical road areas.
- **Prevention of Loose Gravel (FOD):** Controls gravel separation. Rapid Road Rehabilitation.
- **Cost-Effective Maintenance:** Reduces maintenance costs by up to 50%.
- **Five years Warranty:** Guarantees protection against peeling and delamination.
- **Versatile Adhesion:** Adheres to various surfaces, protecting against moisture, UV rays, rust, chemicals, and weather impacts.





**PMCO<sup>TM</sup>-OL** products have undergone rigorous testing in the United Arab Emirates, a pioneering achievement in the Gulf region. **PMCO<sup>TM</sup>-OL** layer withstood trucks weighing over 120 tons and endured harsh road conditions, including high temperatures, friction, stops, heavy loads, and turns.



## PMCO™-OL Mixing.

For expert guidance on professional applications, consult ART for comprehensive training of qualified distributors, ensuring high-quality performance and smooth, flawless execution every time.

## PMCO™-OL Products.

<b>PMCO™ - OL</b>	A thin layer of polymer-modified micro-cement
<b>PMCO™ - AC</b>	Pure Hybrid Acrylic Polymer (HAP)
<b>PMCO™ - BD</b>	Surface Bonding Modified Polymer
<b>PMCO™ - PH</b>	Modified Polymer, Micro-Concrete, Pothole Filling.
<b>PMCO™ - RC</b>	Modified Polymer, Micro-Concrete, Road Crack Filling
<b>PMCO™ - SC</b>	Modified Polymer, High-Strength Structural Mortar
<b>PMCO™ - CR</b>	Modified Polymer with Colored Chlorinated Rubber
<b>PMCO™ - Mark</b>	Color-Modified Polymers for Road Markings
<b>PMCO™ - CT</b>	Self-Crosslinking Hybrid Polymer Insulation Layer





# PMCO<sup>TM</sup> - PH

## Watch Out!

Potholes are not just bumps in the road; they are a danger zone for your safety.





## **Introduction:**

**Arabian Road Technology (ART), based in Dubai - UAE, specializes in the rapid repair of potholes on asphalt and concrete roads. Our innovative, bitumen-free solution relies on a simple and quick application process, ensuring cost efficiency without compromising quality, with strength five times greater than traditional asphalt. We focus on permanent solutions and are committed to delivering long-lasting results, ensuring safer and smoother roads for everyone.**



## **PMCO™-PH Description.**

**PMCO™-PH** is ready to use cementitious mortar mix containing hydraulic binders, a carefully selected aggregate, polymer-rich organic additives, and fibers for enhanced performance. It is designed to provide high-quality performance with a thickness ranging from 1 mm to 100 mm.

**PMCO™-PH** (High-quality micro-concrete, fiber-reinforced and polymer-modified) is the ideal solution for creating a durable and stable base for filling potholes in asphalt and concrete roads with a thickness ranging from 1 mm to 100 mm in a single application. It can be used on both asphalt and concrete roads, making it a perfect choice for quick and effective repairs







## PMCO™-PH Features:

**Ready-to-Mix:** Ensures high quality under factory control.

**High Compressive & Flexural Strength:** Provides exceptional durability.

**Quick Application and Smooth Finish:** Saves significant time.

**High Adhesion Strength:** Ensures long-term stability.

**Fiber-Reinforced:** Enhances durability and crack resistance.

**Controlled Shrinkage:** Reduces shrinkage and cracking.

**Variable Thickness from 1 mm to 100 mm:** Suitable for various needs.

**Fast, Durable, and Long-Lasting Strength.**

**Pothole Repair with Bitumen-Free Solutions.**

### Typical Characteristics

**Appearance:** Coarse gray/black powder.

**Water Ratio:** 2.75 to 3.0 liters per 25 kg bag.

**Powder Density:** 1600 kg/m<sup>3</sup>.

**Working Time:** At 20°C up to 60 minutes.

**Layer Thickness:** 10 to 100 mm.

**Compressive Strength:**

After 7 days: More than 18 N/mm<sup>2</sup>.

After 28 days: More than 32 N/mm<sup>2</sup>.

**Maximum Aggregate Size:** 6 mm.

**Coverage:** 25 kg covers 1.5 m<sup>2</sup> per 10 mm thickness.

**Wet Density:** 2000 kg/m<sup>3</sup>.

**Fire Resistance:** E (DIN 13813).

**Ready for Use:** 3 to 4 hours at 25°C.

**Flexural Strength:**

After 7 days: More than 4 N/mm<sup>2</sup>.

After 28 days: More than 6 N/mm<sup>2</sup>





## Surface Preparation:

Surfaces must be free of weak surface layers, dust, oils, grease, and other contaminants that may affect adhesion strength.

It is recommended to apply **PMCO™-BOND** before using **PMCO™-PH** to ensure optimal performance and perfect adhesion.

**Package Size:** bags 25 kg

## Mixing:

Add 2.75 to 3.00 liters of cold water into a clean rotating mixer. Gradually add the entire bag of **PMCO™-PH** while stirring until a smooth, lump-free mortar is obtained

## Shelf Life and Storage:

The shelf life is up to 12 months if stored properly in the original unopened packaging and in dry, shaded conditions away from direct sunlight.

## Quality and Care:

All products manufactured and imported from **ART's** facility in the UAE undergo independent testing and certifications within ART's management system to ensure compliance with quality requirements, environmental standards, and health and safety standards.

# **PMCO<sup>TM</sup> - Mark**

**Distinctive Colors for Safe Roads**  
**Three-Layer System**

First Layer

**PMCO<sup>TM</sup> -OL**

Cement Base Layer

Second Layer

**PMCO<sup>TM</sup> -CR**

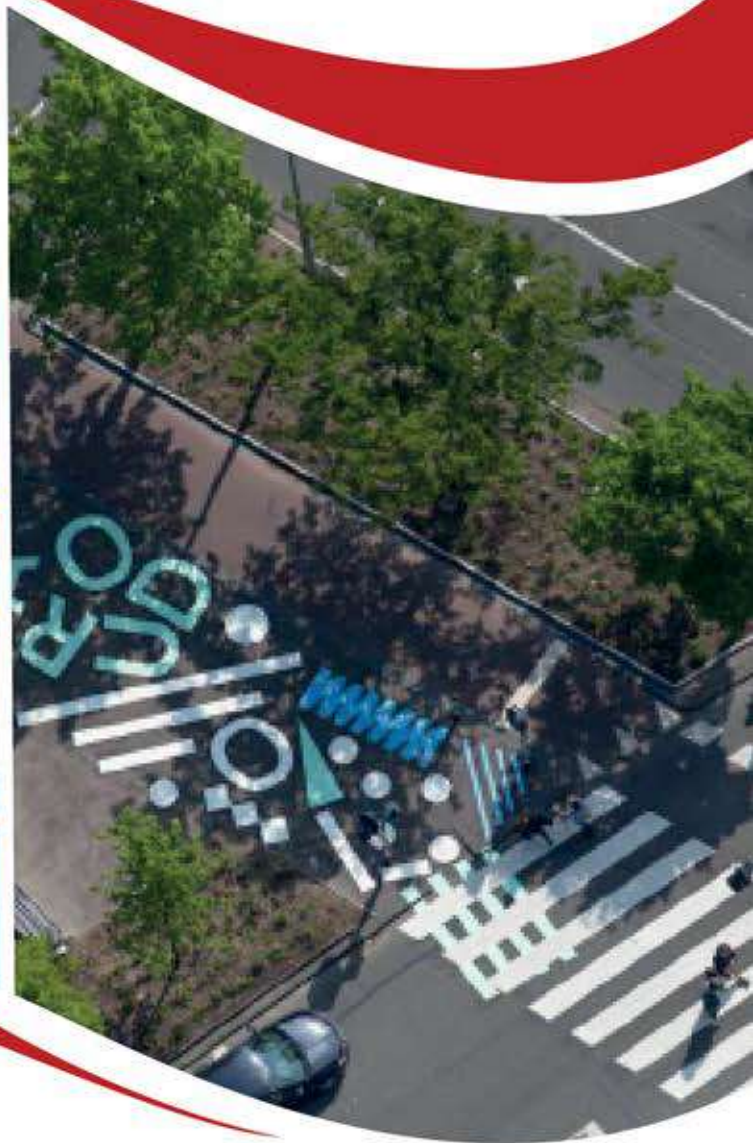
Layer of Colored  
Chlorinated Rubber

Third Layer

**PMCO<sup>TM</sup> -CT**

Transparent  
Insulation Layer.





**PMCO<sup>TM</sup>-MARK** is a three-layer system developed to ensure exceptional durability and performance. Reinforced with advanced fibers and specialized additives, it withstands the harshest conditions thanks to its superior resistance to corrosion from water, chemicals, UV rays, tire friction, and scratches.

## **PMCO<sup>TM</sup>-MARK Features:**

- ✓ High-visibility and multi-color options.
- ✓ Superior adhesion.
- ✓ Long-lasting protection.
- ✓ Enhanced safety.
- ✓ Weather-resistant.
- ✓ Quick drying.
- ✓ Eco-friendly system.



# PMCO<sup>TM</sup> - MARK

**three-layer system that provides unmatched durability and functionality:**

## **Base Layer PMCO<sup>TM</sup>-OL**

Compliant with international standards:

- EN 12190, EN 1542, ANSI 118.4, EN 12808 – Polymer-modified micro-cement coating mixed with PMCO<sup>TM</sup>-AC.
- Protects asphalt/concrete from sunlight, water, and stress.
- Exceptional adhesion to various surfaces.
- Resistant to water, UV rays, chemicals, and stains.
- Reduces surface temperature by 15-10°C.
- Withstands temperatures exceeding +150°C and ensures ideal adhesion to different surfaces.
- High surface friction value > 75 PTV.



## **Color Layer PMCO<sup>TM</sup>-CR**

Compliant with international standards:

- ASTM D445, D2196, D1475, D792, D1639.
- A layer of chlorinated rubber with fibers and fine additives, providing high-friction and durable road markings.
- Offers ideal adhesion, flexibility, and resistance to UV rays, wear, and chemicals.
- Maintains vibrant colors and is compatible with glass beads to enhance nighttime visibility.
- Dries within 30-10 minutes, making it ideal for highways and urban areas.



**Course Medium Fine**



## Protective Layer PMCO™-CT

Compliant with international standards:

- ASTM D2834, D1293, D1475, D2196, D135.
- An acrylic polymer designed to protect the color and enhance durability.
- UV-resistant.
- Resistant to chemicals and harsh weather conditions.
- Adds a transparent finishing touch, preserving the base color





**PMCO™-MARK Applications**







## Actual Productivity.

- **PMCO<sup>TM</sup>-OL** At 1 mm thickness – 15 square meters per 25 kg bag.
- **PMCO<sup>TM</sup>-CR** At 500–300 microns thickness – 50 square meters per 22 kg bucket.
- **PMCO<sup>TM</sup>-CT** At 150–100 microns thickness – 150 square meters per 15 kg bucket.

Actual productivity should be verified based on specific site conditions.

# **PMCO<sup>TM</sup>**

## **RSS & DSS**

### **Premium Soil Stabilization**







# PMCO<sup>TM</sup>

## RSS & DSS

**Sand Dune Stabilization Solutions.**

Eco-friendly solutions that combine precision, performance, and environmental responsibility.

### Product Features

- ✓ **Structural Stability:** Enhances the stability of sand dunes and prevents their collapse.
- ✓ **Wind and Erosion Protection:** Provides a shield against sand movement and resists wind impact and erosion.
- ✓ **Accident Prevention:** Reduces risks and enhances safety on sand-covered surfaces.
- ✓ **Cost Savings:** Reduces maintenance requirements and ensures long-term cost efficiency.
- ✓ **Adaptability:** Suitable for existing and new sand dunes.
- ✓ **Quick Application:** Rapid construction for immediate impact.
- ✓ **Preserving Natural Beauty:** Balances development with nature conservation.





## Introduction:

### Disadvantages of Unstable Sand Dunes:

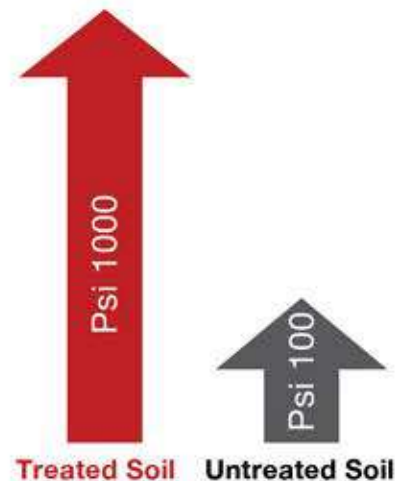
Unstable sand dunes pose a threat to infrastructure, as they can cover roads and populated areas, leading to increased maintenance costs and higher risks to public safety.

### ART's Approach to Effective Sand Dune Stabilization:

**ART** is distinguished by its innovative approach to sand dune stabilization, helping to mitigate their impact on infrastructure and the environment. Our technology relies on two main components: **PMCO-RSS** (Dry Mix) and **PMCO-DSS** (Liquid Emulsion), which undergo rigorous testing in accredited soil laboratories in the UAE and Germany. Random samples are collected from field sites and subjected to advanced evaluation tests in independent laboratories to ensure efficiency and safety in accordance with the highest international standards. Laboratory results are based on comprehensive field tests, reinforcing our commitment to delivering effective and environmentally sustainable solutions.

At the Gio-Science Lab, a sand dune soil stress test was conducted over 3 days, where the tested sample showed exceptional resistance to penetration, reaching a maximum stress of 1000 Psi (6.9 MPa) at a depth of 50 mm, as indicated by the arrows.

In contrast, the untreated sand dune soil test showed a maximum stress of 92 Psi (0.64 MPa) at the same penetration depth (50 mm).







## Method of Stabilizing Sand Dunes Using **PMCO™-RSS & PMCO™-DSS**

Samples are taken and post-stabilization analysis is conducted to evaluate long-term performance.

**Preparation:** Begin the stabilization process by carefully wetting the designated area of the deep dune slope to ensure saturation with water.

**Dividing the Area:** Divide the water-saturated area into uniform square meters, specifying the exact quantities of **PMCO™-RSS** per bag and **PMCO™-DSS** per liter.

**Applying PMCO™-RSS:** Evenly spread the dry **PMCO™-RSS** mixture across each square of the designated area.

**Mixing:** Integrate the dry **PMCO™-RSS** mixture with the sand dune soil to the required depth using milling machines to ensure thorough and homogeneous mixing.

**Applying PMCO™-DSS:** Spray the **PMCO™-DSS** dispersion solution according to predefined specifications for optimal distribution.

**Compaction and Leveling:** Use heavy compaction tools to compress the wetted area, achieving leveling and solid packing to ensure the stability of the treated soil.





## **Sampling for Analysis:**

Random samples were taken from the sand dunes in the field on the third, seventh, and fourteenth days of the stabilization process for penetration and stress analysis.

## **Curing:**

Allow the stabilized area to undergo the recommended curing process, taking into account environmental conditions and the specific characteristics of the dune soil.

## **Documentation:**

Maintain detailed documentation, including the quantities of **PMCO™-RSS** and **PMCO™-DSS** applied, mixing procedures, compaction details, and penetration and stress analysis results, ensuring project transparency and serving as a valuable reference for the future.

## **Application:**

The product can be applied manually or automatically using standard construction equipment.

## **Certification:**

**PMCO™-RSS** and **PMCO™-DSS** have been rigorously tested and certified in the following laboratories:

Wacker Chemical Laboratory – United Arab Emirates.

Gio Science Lab – United Arab Emirates.

## **Packaging:**

**PMCO™-RSS**: 25 kg/bag, 1000 kg/container.

**PMCO™-DSS**: 20 liters, 205 liters, 1000 liters.

## **Storage:**

The product should be stored in a cool, dry place.



# PMCO<sup>TM</sup> - CT

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**Maximum protection for all  
Resistant to stains, damage, and  
color preservation**

# PMCO<sup>TM</sup>-CT

An innovative hybrid polymer with cross-linking technology for protecting cement floors.

Today, many modern buildings feature exposed concrete or self-leveling floors without any top layers. These floors have a unique aesthetic appeal due to their smooth, seamless surfaces, but they are prone to staining.

With PMCO<sup>TM</sup>-CT, ART introduces a new ready-to-use coating for thin-layer cement floor protection. This product offers superior stain resistance compared to traditional agents, while also enhancing color depth and giving the surface a brighter appearance.

PMCO<sup>TM</sup>-CT reacts with moisture upon contact, and its chemical composition has been optimized for low viscosity. As a result, it penetrates deeply into the pores of cement floors, filling them completely and forming a thin, glossy layer on the surface.

Once the binder dries, the pores are fully protected, preventing the seepage of water- or oil-based substances. Thus, the product provides highly effective stain protection, as even materials left on the surface for extended periods can be removed without leaving permanent marks.







## PMCO<sup>TM</sup>-CT features:

- Single-component (1K) formulation
- Deep penetration
- Solvent-free
- Transparent
- Excellent stain resistance
- Scratch-resistant
- Enhances color
- Polishable
- Easy to apply
- Non-flammable.

## PMCO<sup>TM</sup>-CT description:

- **Appearance:** Transparent liquid.
- **Solvents:** Solvent-free
- **Volatile Organic Compounds (VOC) Content:** Low
- **Flash Point:** > °C 100
- **Viscosity:** 75 mPa·s
- **Storage Properties:** Long-term storage.



## PMCO<sup>TM</sup>-CT application:

PMCO<sup>TM</sup>-CT is ideal for cement floors in roads, industrial, commercial, and residential buildings. Applications include:

- Parking lots.
- Auto repair shops.
- Train stations and logistics centers.
- Showrooms.
- Restaurants.
- Event and conference centers.
- Museums.
- Homes.

## Materials Protected: by PMCO<sup>TM</sup>-CT

- Concrete.
- Bricks.
- Patio Tiles.
- Wooden Furniture.
- Marble.
- Granite.
- Natural Stone.
- Wallpaper.
- Wall Protection from Graffiti.
- Parquet Wood.



## :Application Method

- PMCO™-CT is easy to apply and dries quickly.
- PMCO™-CT is typically applied in two stages:
  - First Stage: Enhances floor hardness.
  - Second Stage: Creates a uniform surface that increases scratch and wear resistance, making the floor polishable.
- Floors can be walked or driven on after 24 hours of curing.
- PMCO™-CT can be easily applied by wiping or rolling.
- High resistance to friction and heat with PMCO-CT.

## Load-Bearing Capacity:

- Welding.
- Angular Abrasion.
- Boiling hot Water.
- Durability against Wheel Surface.





## Comparison Between PMCO™-CT and Other Penetration Systems:

There are various systems available to enhance stain resistance for metal surfaces. Compared to these systems, PMCO™-CT demonstrates superior stain resistance.

## Comparison Between Typical Impregnation Systems:

PMCO™-CT	Silane Based	Silicates
New	Well known	Well known
Free of solvents	Solvent based	Water based
High flash point	Low flash point	Low flash point
Neutral	Neutral	Alkaline
Excellent anti-staining	Limited stain resistance	

## Stain Resistance Test: Comparison Between Different Penetration Materials:

A test was conducted to compare stain resistance among different types of impregnation systems, where PMCO-CT demonstrated clear superiority in stain resistance compared to other systems, ensuring better surface protection against contamination and the effects of everyday materials.

### Test Procedure:

- Treating three concrete slabs using silicates, solvent-based silanes, and PMCO-CT formulation.
- Conditioning/Storage for one week.
- Treating the slabs with the tested components/chemicals for 24 hours

The data provided in this medium aligns with the current state of our knowledge, but it does not exempt the user from carefully verifying all supplies upon receipt. We reserve the right to modify product constants within the scope of technological advancements or new developments. The recommendations in this medium should be verified through preliminary experiments due to conditions that may arise during processing and are beyond our control, especially when raw materials from other companies are used. The information we provide does not exempt the user from the duty to investigate potential infringement of third-party rights and, if necessary, clarify the situation. Usage recommendations do not constitute a guarantee, whether express or implied, of the product's suitability or fitness for a particular purpose.





# **PMCO<sup>TM</sup> - SL**

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**The Ultimate Shield Against  
Water and Moisture**



## PMCO<sup>TM</sup>-SL features:

long-lasting protective repellent layer that prevents cracking and peeling.

- Water and moisture resistant.
- Maintains thermal insulation efficiency.
- Excellent penetration for porous surfaces.
- Contains antimicrobial agents (reduces algae and mold growth).
- Reduces chloride ion penetration and surface efflorescence.
- Allows air passage and reduces surface moisture.
- Minimizes dirt accumulation and staining.
- Limits efflorescence and surface salt deposits.
- Odorless (low VOCs).
- Easy to apply.
- Withstands harsh conditions such as UV rays and extreme heat common in Gulf countries.

## PMCO<sup>TM</sup>-SL description:

PMCO<sup>TM</sup>-SL unleashes the power of innovative water repellency – absolute protection against salts, water, mold, and moisture. Elevate the durability of concrete, plaster, bricks, stone, marble, patio tiles, and other construction surfaces to an unmatched level.



## Main Application:

- Concrete
- Plaster
- Cracked Bricks
- Roof Tiles
- Bricks and Masonry
- Stone, Marble, Granite, and Tiles
- All Types of Paved Floors
- Base Layer for Painting
- All Water-Exposed Areas
- Wooden Surfaces and Wooden Furniture.



## PMCO™-SL Test:

Property	Typical Results
Specific gravity	1.02
Water penetration at 5 bar	Nil
Reduction in water absorption	More than 90% even after 1500 hs. of efficiency testing and exposure to 60°C.

## Efflorescence & Salt Deposits on Walls:

Efflorescence is the appearance of white or gray deposits on the surface of bricks and concrete walls due to the deposition of dissolved salts as water evaporates from within the materials. This occurs due to moisture absorption and the presence of soluble salts in the bricks or mortar.



## **PMCO™-SL application:**

Simple insulation, precise insulation: **PMCO™-SL** stands out for its ease of application and high efficiency. A single, uniform layer can be easily applied using a 8/3-inch nap roller or a low-pressure sprayer, and it is also compatible with airless sprayers for even greater convenience.

### **Application flexibility:**

- Use a 4/1-inch (6-5 mm) nozzle or lower pressure setting with a 0.017-inch spray tip.
- Achieves coverage of up to 20 m<sup>2</sup>/liter per coat, adaptable to surface porosity.

### **PMCO™-SL: Precision, Performance, Protection in One Touch!**

**Coverage:** On average, **PMCO™-SL** covers 20 square meters per liter per coat. Highly porous surfaces may require two coats or an increased application rate to ensure full protection.

**To achieve the best results, the surface should be carefully prepared before application.**

**Surface Cleaning:** Ensure the surface is dry, clean, and free of contaminants such as dirt, salts, or oils.

**Removing Buildup:** Remove any dirt or salt buildup using high-pressure washing on existing surfaces to expose the original surface.

**Drying:** Allow the surface to dry completely before applying the product to ensure optimal absorption and maximum protection.

**Proper surface preparation is a crucial step to ensure ideal coating adhesion and extend its lifespan. International standards such as ISO 8501 emphasize the importance of correctly cleaning and preparing surfaces before applying coatings to ensure good adhesion and prevent peeling.**



**Shelf Life:** PMCO™-SL has a shelf life of up to 24 months when stored at 25°C or below, in a dry and shaded place, to ensure product quality and effectiveness.

It is recommended to follow the storage guidelines in the **TDS** (Technical Data Sheet).

**Health and Safety:** Before using PMCO™-SL, it is recommended to review the product's Safety Data Sheet (SDS) to ensure safe and effective use.

**Color:** PMCO™-SL dries to a transparent finish without altering the appearance of the treated surface.

**Packaging:** PMCO™-SL is available in the following containers:

- 5 kg / jar.
- 20 kg / bucket.
- 200 kg / barrel.

### **Limitations:**

- **Temperature:** It is not recommended to apply PMCO™-SL at temperatures below 4°C.
- **Storage:** The product should not be allowed to freeze during storage.
- **Disposal:** The product should not be disposed of in water systems.
- **Low-Porosity Surfaces:** It is not recommended for use on very low-porosity surfaces.
- **Below-Grade Insulation:** The product is not intended for below-grade insulation.

**Note:** Some surfaces may appear slightly darker after treatment. Therefore, it is always recommended to perform a trial application to determine if there is any color change.

## Pictures from the Factory





## Pictures from the Factory





## Products Shipment





[illegible]

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## 2. Test Results

### Table 2.1: Admission Requirements

Minimum Requirement	Minimum (2018-2019)	Minimum (2019-2020)
Minimum Score	40/100	40/100
Standard Condition	1 Page	200
	20 Pages	200

Table 2.2: Completion & Financial Strength

Phase of study completion of the specimen (only, testing)	Discontinuation																				
<table border="1"> <thead> <tr> <th colspan="2">Financial Strength</th> </tr> <tr> <th>Completion</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>40 Pages</td> </tr> <tr> <td>2</td> <td>1 Page</td> </tr> <tr> <td>3</td> <td>20 Pages</td> </tr> </tbody> </table>	Financial Strength		Completion	Amount	1	40 Pages	2	1 Page	3	20 Pages	<table border="1"> <thead> <tr> <th colspan="2">Completion Strength</th> </tr> <tr> <th>Completion</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>40 Pages</td> </tr> <tr> <td>2</td> <td>1 Page</td> </tr> <tr> <td>3</td> <td>20 Pages</td> </tr> </tbody> </table>	Completion Strength		Completion	Amount	1	40 Pages	2	1 Page	3	20 Pages
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2	1 Page																				
3	20 Pages																				

Table 2.3: Financial Admission Strength (Financial Strength)

Completion	Financial Strength (Amount)
40%	1.1
1 Page	1.0
20 Pages	1.0

[illegible]**PMCO-OL Test**[illegible][illegible]

## PMCO-OL Full System Test

[illegible]

<b>2. Test Results</b> Table 2-1. Abrasion Resistance	
<b>Abrasion Resistance</b> (ASTM D 5708-1997)	<b>Resistance to Abrasion (mm<sup>3</sup>)</b>
1 Edge	40
2 Edge	20
3 Edge	20

<b>Table 2-2. Compression &amp; Flexural Strength</b>	
<b>Result of visual inspection of the specimen before testing</b>	<b>No observation</b>

<b>Flexural Strength</b>		<b>Compression Strength</b>	
1 Edge	20	1 Edge	20
2 Edge	20	2 Edge	20
3 Edge	20	3 Edge	20

<b>Table 2-3. Tensile Adhesion Strength (Bond Strength)</b>	
<b>Conditioning</b>	<b>Tensile Strength (N/mm<sup>2</sup>)</b>
1 Edge	20
2 Edge	20

<b>Material Name</b> Technical Name	<b>Manufacturer Name</b> Registered Trademark
1 Edge	1 Edge
2 Edge	2 Edge

<b>Material Name</b> Technical Name	<b>Manufacturer Name</b> Registered Trademark
1 Edge	1 Edge
2 Edge	2 Edge

<b>Material Name</b> Technical Name	<b>Manufacturer Name</b> Registered Trademark
1 Edge	1 Edge
2 Edge	2 Edge

<b>Material Name</b> Technical Name	<b>Manufacturer Name</b> Registered Trademark
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<b>Material Name</b> Technical Name	<b>Manufacturer Name</b> Registered Trademark
1 Edge	1 Edge
2 Edge	2 Edge

<b>Material Name</b> Technical Name	<b>Manufacturer Name</b> Registered Trademark
1 Edge	1 Edge
2 Edge	

**PMCO-PH Test Report**





[illegible]

## PMCO-PTV Test Gio Science

[illegible]

**Table 2.2 Water Impermeability (Positive)**

Specimen	Initial weight of sample (g)	Final weight of sample (g)	Weight gain (%)
A	309.0	307.5	-0.5
B	318.6	319.1	0.2
C	305.1	303.2	-1.2

Specimens	Water Pressure (kPa)	Result	Description
A	50	Passed	Passed after 1 hr, 40% less water absorption than control.
B	50	Failed	Passed after 1 hr, 40% more water absorption than control.
C	50	Failed	Passed after 1 hr, 40% less water absorption than control.

**Table 2.2 Water Impermeability (Negative)**

Specimen	Water Pressure (kPa)	Result	Description
A	50	Passed	Passed at 0.5 hr.
B	50	Failed	Passed at 0.5 hr.
C	50	Failed	Passed at 0.5 hr.

[illegible]

## PMCO-WPF Test

[illegible]

Page 1 of 3

## 2. Test Results

Table 2.1: Water impermeability (Fast Crack-Brake application)

Specimen	Water Pressure (kPa)	Result	Observation
A	100	Passed	No water penetration observed
B	100	Passed	No water penetration observed
C	100	Passed	No water penetration observed

Table 2.2: Water impermeability (Application with 2 mm width)

Specimen	Water Pressure (kPa)	Result	Observation
A	100	Passed	No water penetration observed
B	100	Passed	No water penetration observed
C	100	Passed	No water penetration observed

Table 2.3: Crack Bridging Ability

Specimen	Specimen dimension			Crack Bridging Ability (MPa)
	Length	Width	Thickness	
A	50	20	5.00	1.32
B	50	20	5.00	1.59
C	50	20	5.00	1.36

Mean 1.27

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Table 2.4: Tensile Adhesives Strength		
Strong Condition	Tensile Strength (MPa)	Heat (MPa)
Strong Condition	1.00	1.00
	1.10	
	1.20	
	1.30	
Strong Condition	1.40	1.40
	1.50	
	1.60	
	1.70	

## PMCO-WPF 1-2 Test

## Some Projects





## Some Projects





# Some Projects

Stages of Applying **PMCO™-OL**





# Some Projects

Stages of Applying **PMCO™-CR**





# Some Projects

Stages of Applying **PMCO™-MARK**





# Some Projects

Stages of Applying **PMCO™-MARK**



# Some Projects

Stages of Applying **PMCO™-MARK**





## Some Projects





## Some Projects





## Some Projects



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