## Our Special Catalog of Products catering to InfraProjects

## SKY/MIX CONCRETE

- PAVECURE M40
- SMIX FAST FIX



# PAVECURE M40 MIX

#### **PRODUCT OVERVIEW**

- Advanced Pavement Quality: PaveCure M40 is engineered for high-strength road surfaces, ensuring durability and resilience under heavy traffic and load conditions.
- Exceptional Durability: The concrete mix is optimized for long-lasting performance, reducing the need for frequent maintenance and repairs.
- Internal Curing Technology: Innovative internal curing retains moisture within the mix, promoting uniform hydration and enhancing overall concrete strength.
- Long-Lasting Infrastructure: Ideal for highways and runways, PaveCure M40 ensures extended lifespan and reliable performance in demanding infrastructure applications.









## **KEY FEATURES**

## Internal Curing Technology:

PaveCure M40 employs a patented internal curing method that retains moisture within the concrete mix, enhancing the hydration process and resulting in a more robust and durable pavement surface.

#### **Enhanced Durability:**

The unique composition of PaveCure M40 reduces the risk of common issues such as shrinkage, curling, and cracking, leading to longer-lasting pavement with minimal maintenance

#### Fast Setting Time:

PaveCure M40 is designed to achieve rapid setting and early strength development, allowing for quicker project turnover and reduced downtime, making it ideal for time-sensitive construction projects.

#### **Improved Workability:**

PaveCure M40 offers excellent workability, facilitating easier placing, pumping, and finishing processes, reducing reliance on additional admixtures and labor

#### Water-Saving Technology:

PaveCure M40 is engineered with a focus on water conservation.

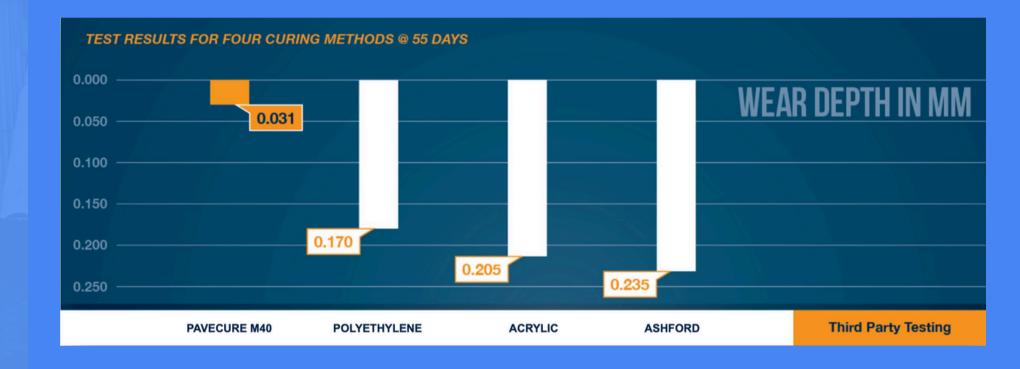
By utilizing advanced internal curing techniques, it significantly reduces the need for external water curing, leading to substantial water savings on-site.

#### **ECO-FRIENDLY**

By eliminating the need for traditional wet curing methods and reducing the use of additional admixtures, PaveCure M40 contributes to a more sustainable construction process.

# TESTS CONDUCTED

- Pavecure M40 sets the benchmark for concrete curing, as proven by its superior performance in wear resistance. After rigorous testing over a period of 55 days.
- Pavecure M40 consistently demonstrated the lowest wear depth among various curing methods, with a minimal wear depth of just 0.031 mm.
- This result showcases its exceptional ability to enhance the durability and longevity of concrete surfaces, making it an ideal choice for high-traffic areas and projects requiring extended service life.



## Why Pavecure M40?

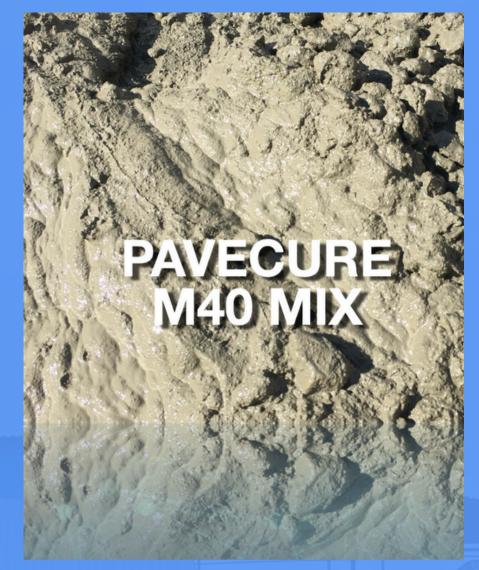
- Proven Performance for Road Safety and Longevity. Our commitment to quality is demonstrated through rigorous testing, as shown in the abrasion resistance test image.
- Pavecure M40 undergoes thorough simulations of real-world traffic conditions, ensuring it meets and exceeds the required standards for highway and road construction.
- Superior Wear Resistance: Pavecure M40 achieves extremely high wear resistance with a maximum wear depth of just 0.050 mm. This makes it the ideal choice for critical sections of highways where heavy trucks, buses, and constant traffic demand a road surface that can handle extreme stress.
- **Designed for High Traffic Loads:** Pavecure M40 is engineered to withstand the constant impact and wear caused by steel tires and other heavy-duty vehicles. It's perfect for roads in industrial zones, freight corridors, and any location where road durability is crucial.
- Adaptability for Diverse Road Conditions: Whether it's a major highway or a rural road, Pavecure M40 offers high wear resistance across varying conditions. With a maximum wear depth of 0.200 mm, it's built to last in medium to high-traffic areas, ensuring long-lasting performance with minimal maintenance.
- Reliable for Light Traffic Zones: Even in areas with lighter traffic, Pavecure M40 provides dependable durability with good wear resistance and a maximum wear depth of 0.400 mm. This makes it ideal for local roads and less trafficked sections, ensuring consistent quality across all types of roadways.

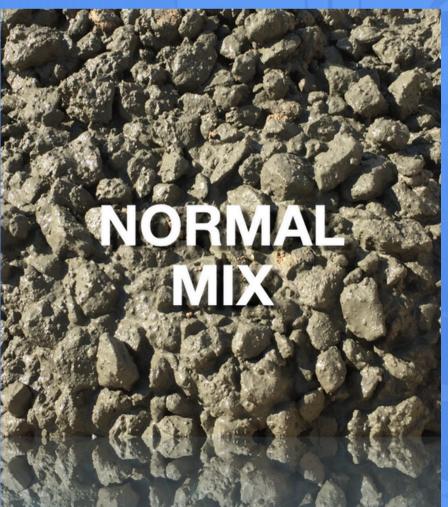
Wear class	Degree of wear resistance	Maximum wear depth*	Typical use	Traffic
Special	Extremely high	0.050 mm	Very heavy-duty factories	Heavily loaded steel tires, impact, dragged loads
AR1	Very high	0.100 mm	Heavy-duty factories and warehouses	Steel tires, impact
AR2	High	0.200 mm	Medium-duty factories and warehouses	Lightly loaded steel tires, hard plastic tires
AR3	Good	0.400 mm	Light-duty factories and warehouses	Rubber tires
*From standard Chaplin test				



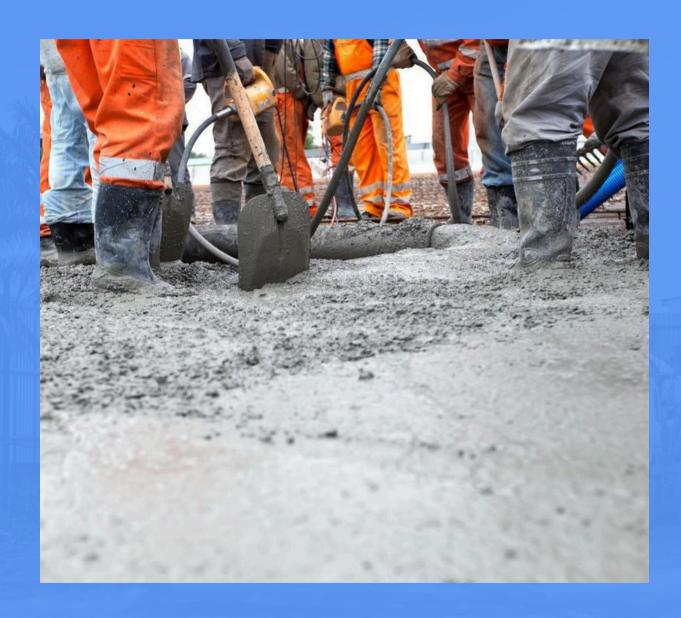
## VALUE PROPOSITION

- <u>Time-Saving:</u> PaveCure M40's fast setting time and internal curing technology shorten the work cycle, enabling quicker project completion and reducing overall construction time.
- <u>Cost-Effective</u>: By minimizing the need for external water curing and additional admixtures, PaveCure M40 lowers material and labor costs, making it an economical choice for largescale projects.
- <u>Water Conservation:</u> The innovative internal curing system drastically reduces water usage, aligning with sustainable construction practices and providing significant savings in water-scarce regions.
- <u>High Performance and Durability:</u> PaveCure M40 offers exceptional strength and durability, leading to longer-lasting pavements that require less frequent maintenance, further reducing long-term costs.
- Reliability in Extreme Conditions: Designed to withstand harsh environmental conditions, PaveCure M40 ensures consistent performance in varying climates, making it a reliable solution for infrastructure projects worldwide.





## **PRECAUTIONS**



- Mixing Accuracy: Ensure that the correct proportions of materials are used in the mix to maintain the integrity and performance of PaveCure M40. Precise measurement and mixing are crucial for achieving the desired strength and durability.
- Proper Handling: Handle PaveCure M40 with care to prevent contamination or segregation of the mix. Use clean tools and equipment to maintain the quality of the concrete during preparation and application.
- Temperature Control: Monitor the temperature during mixing, placing, and curing. Extreme temperatures can affect the setting time and final strength of the concrete. Consider using temperature-control measures if working in very hot or cold conditions.
- Timing of Curing: Although PaveCure M40 incorporates internal curing, external conditions should still be monitored to ensure proper curing. Avoid premature exposure to traffic or loads before the concrete has reached the required strength.
- Safety Measures: Always wear appropriate personal protective equipment (PPE), such as gloves, goggles, and masks, when handling PaveCure M40 to prevent skin irritation, respiratory issues, and eye injuries

## **SMIX FAST FIX**

- SMIX FAST FIX is supplied as a ready-to-use blend of dry powder, which requires only the addition of clean water at the site to produce a high-grade cement-based patch repairing mortar.
- The material is based on Portland cements, fillers, and additives that impart early strength.
- It achieves an initial set in 10 to 30 minutes, with the final set occurring in 20 to 90 minutes.
- Its quick-setting properties allow the surface to be opened to traffic 2 to 4 hours after repair.





## **ADVANTAGES**



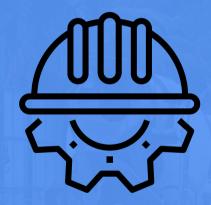
EASY TO APPLY



HIGH EARLY STRENGTH AND FAST SETTING



Pre-packed to ensure consistency and avoid site-batched variations.



EXCELLENT ADHESION
TO OLD CONCRETE
SUBSTRATES.



ECONOMICAL AND DURABLE, CONTAINING NO CHLORIDES.

## TECHNICAL INFORMATION

## **TEST**

## **SPECIFICATION**

COLOUR	GRAY		
APPEARANCE	POWDER		
WET DENSITY	2200 to 2250 Kg/m <sup>3</sup>		
WORKING TIME	10 MINUTES		
COMPRESSIVE STRENGTH	>20 N/mm <sup>2</sup> @ 2 hours >25 N/mm <sup>2</sup> @ 4 hours >40 N/mm <sup>2</sup> @ 1 day >70 N/mm <sup>2</sup> @ 7 days >80 N/mm <sup>2</sup> @ 28 days		

## **TECHNICALITIES**

### **PLACING**

- Immediate Application: The mixed SMIX FAST FIX mortar should be placed immediately after mixing to take full advantage of its quick-setting properties. Delays can lead to premature setting, affecting the workability and performance of the material.
- Pumping Method: When applying the mortar by pump, ensure that standard concrete pumping practices are followed. This includes using a suitable pump that can handle the viscosity and quick-setting nature of the material.
- **Priming the Pump:** Before starting the actual pumping, the pump and pipeline must be primed with a cement slurry. This helps prevent blockages and ensures a smooth flow of the mortar through the pipeline.
- Continuous Pumping: Start pumping immediately after priming to maintain a continuous flow of the mortar. Interruptions can lead to setting within the pipeline, causing blockages and wastage.
- Formwork Pouring: If the mortar is poured into formwork, avoid air entrapment by pouring from one side only. This ensures that the mortar fills the formwork evenly and reduces the risk of voids or weak spots in the repair.





## CURING

- Immediate Curing: Curing should begin immediately after stripping the formwork to ensure that the repair reaches its intended strength and durability. Early curing helps prevent shrinkage cracks and ensures that the mortar retains its moisture for proper hydration.
- Moisture Retention: Cover the freshly placed mortar with wet burlap, plastic sheeting, or a curing compound to retain moisture. This is especially important for SMIX FAST FIX due to its fast-setting nature, which can lead to rapid moisture loss if not properly cured.
- Temperature Considerations: In hot weather, take extra precautions to keep the mortar cool during the curing process. This can be done by shading the work area or using cool water for curing.
- Curing Duration: Continue curing for at least 24 hours to ensure the mortar reaches sufficient early strength. For optimal results, curing can be extended depending on the environmental conditions and the criticality of the repair.
- Avoid Premature Traffic: While SMIX FAST FIX allows for early reopening to traffic, ensure that sufficient curing has occurred before subjecting the repair to heavy loads. This prevents damage to the still-hardening mortar and ensures long-term performance



### **PRECAUTIONS**

- Always wear appropriate personal protective equipment (PPE) such as gloves, long sleeves, safety goggles, and a dust mask or respirator when handling SMIX FAST FIX.
- Ensure adequate ventilation in the work area to minimize dust inhalation.
- Wash skin thoroughly with soap and water after handling the material. If skin irritation occurs, seek medical attention.
- In case of eye contact, flush immediately with plenty of water and seek medical advice.
- Avoid eating, drinking, or smoking when working with the product to prevent accidental ingestion.

