

## **AKRE REPAIR 740**

### **Description :**

A cementitious compound used in concrete repair with high efficiency, reinforced with fibers, and has the property of SRC and high flow ability in addition to high adhesion strength on concrete and non-shrinkage.

### **Uses :**

- Used to reinforce all concrete structures, including heavy ones.
- Repairing concrete surfaces under construction and those underwater that are exposed to high erosion, such as marine facilities, ports, etc.
- Surface repair and leveling in waterproofing applications, tiles, floors and high-performance concrete structures.
- Repair and replace concrete exposed to carbon, sulfuric reactions, and chloride (SRC property).

### **Properties :**

- High reinforcement strength because it contains fibers.
- Variable flow without displacement or sagging in the vertical application.
- High adhesion strength with surfaces.
- Very suitable for application in tall buildings.
- Prevents corrosion of iron in concrete.
- It can be applied using a trowel, pump or spray.

### **Steps of application:**

#### **1- Preparation of substrate :**

- The surface must be solid, dry and clean from various foreign materials such as dust, dirt, oils and paint.
- The surface must be free of excesses and residues, which can be removed using sharp tools or a hammer.
- If the concrete iron is damaged, it must be ensured that it is completely exposed, then cleaned completely, and it is preferable to use AKRE FLEX 2060 as a foundation layer before use.

#### **2- Application :**

- **Mixing :**  
Add **AKRE REPAIR 720** slowly to the amount of clean water in the mixing bowl (17-19 % water ratio) while avoiding adding any other substances during mixing, then mix using a low-speed mechanical mixer, quietly and for 2 minutes until we reach a homogeneous mixture, free of clusters, let the mixture rest for 2 minutes, then re-mix for (30-60 sec ), and the mixture is ready to apply.
- **Spreading :**  
spread the mixture with a trowel or rubber gloves to stick the materials in place. With a thickness ranging from (5-50 mm) for each layer on several layers for vertical or horizontal surfaces.

When several layers are required, the previous layer should be criss-crossed and at the beginning of its drying before applying the second layer.

The mixture must be used within a period not exceeding 60 minutes after the end of mixing to obtain an effective result.

The consumption is ( ~ 1.9 - 2 kg / m<sup>2</sup> / mm ), and this ratio changes depending on the surface properties and climatic conditions.

**Post-application recommendation :**

- Do not apply in very hot weather or when there are strong winds, heavy dust or heavy rain.
- Water absorbent surfaces should be coated with **Akre Primer 2054** before application.
- In case of application at high temperatures, the surface should be slightly moistened before application.
- The appropriate temperature when applying (5 - 35 degrees Celsius)
- Dispose of the remaining product after application when exceeding the duration of use.

**Cleaning :**

- Clean equipment and hands with direct water
- Clean the surface of the stuck material after installation with a wet cloth.

**Storage :**

- Storage in relatively dry warehouses away from humidity and direct sunlight.
- No more than 10 bags should be placed on top of each other during storage.
- shelf life 12 months in appropriate conditions.

**Packaging :**

- Multi-ply paper bag 25 kg.

**Safety recommendations :**

**Akre repair 740** is a cement chemical compound containing substances that cause eye irritation and skin sensitivity so the following safety instructions must be adhered to:

- Wear gloves and goggles while working.
- Wear masks to protect respiratory health.
- Any scratch on the skin or eyes should be treated with pure water immediately.
- If the substance is ingested by mistake, a doctor must be checked immediately without attempting to stimulate vomiting.

## Technical properties

Appearance	Powder
Color	Gray
Water ratio	17 – 19 %
Density	1.7 gr/cm <sup>3</sup>
Consumption	( ~ 1.9 - 2 kg / m <sup>2</sup> / mm)
Adjusting time after installation	60 minutes after mixing
Time required to install on it	24 Hours after application
Appropriate temperature for application	5 – 35 °C
Compressive strength :	at 7 days ~46 N/mm <sup>2</sup> at 28 days ~55 N/mm <sup>2</sup>
Flexural strength at 28 days :	>3.5 N/mm <sup>2</sup>
Bond strength at 28 days :	>2.6 N/mm <sup>2</sup>
Drying Shrinkage :	at 7 days: 285 Micro strains at 28 days: 430 Micro strains
Water absorption :	0.95 %
Pot Life:	30 minutes