



TECHNICAL DATA SHEET

DUCRETE FRM

DUCRETE FRM is a specially designed concrete repair mortar that contains fibers, providing non-shrink properties and excellent adhesion to concrete.

USES:

- Ideal for substantial concrete repairs
- Specifically designed for use in columns, slabs, and for repairing significant concrete damage
- Suitable for repairing concrete in highly corrosive environments, such as sea walls and marine structures

ADVANTAGES:

- It only needs water to be added for preparation.
- Minimizes shrinkage and is resistant to cracking.
- Demonstrates outstanding adhesion to concrete. Exhibits low permeability and resists the effects of chlorides and other chemicals.
- Provides a smooth and easily applicable coating that is also flexible.

APPLICATION

Preparation:

Before repairing the concrete, ensure that the surface is in good condition, clean, and free from any contaminants. If there are decayed or damaged areas, carefully saw cut them while maintaining square sides. Remove any loose materials using appropriate tools such as sharp tools or chipping hammers. If the reinforcement is corroded, ensure that the backside of the steel is fully exposed. Clean the steel until it is in a bright metal condition.

Priming:

Reinforcement steel: After cleaning the reinforcement steel, it is important to prime it using a Zinc-rich primer. Apply a continuous coat of the primer using a brush, ensuring complete coverage. A second coat can be applied after a 5-hour interval.

Concrete: In cases where the concrete damage is severe and caused by chloride attack, it is recommended to apply an DUCRETE FRM bonding coat before using DUCRETE FRM. To achieve the best bond with DUCRETE FRM, apply it when the bonding agent is still tacky, both in the fresh and cured states. This will ensure optimal adhesion.

Mixing:

DUCRETE FRM can be mixed either by hand or using a mechanical mixer. For hand mixing, it is recommended to mix quantities not exceeding 10kg at a time. Slowly add the DUCRETE FRM powder to clean gauged water, and mix thoroughly to create a smooth mortar. The consistency of the mixture can be adjusted by adding more powder or water as needed.

Finishing:

While the primer is still tacky, apply the DUCRETE FRM mortar mix and ensure it is well compacted. This can be done using a trowel or a rubber gloved hand to firmly press the material into place. On vertical and overhead surfaces, DUCRETE FRM can be applied in a single pass at a thickness of up to 40mm. If a thicker application is desired, formwork can be used to achieve a high build. When applying multiple layers, it is important to cross-hatch the previous layer and allow it to set before applying the next coat. This helps to enhance the bond between layers and ensure a strong and durable repair.

Curing:

Clean water is required for the curing process of DUCRETE FRM . It is also recommended to start the curing process as soon as the formworks are removed to ensure optimal results.

CLEANING

Cleaning the tools immediately after use with water is sufficient.

Special Note: DUCRETE FRM is not recommended to be used under temp. 5C DUCRETE FRM should not mix with any other product Ponding method of curing is not suitable

PACKING AND STORAGE

The packagings available are: 15KGS , 20 KGS

It is important to store DUCRETE FRM in cool, dry, and shaded warehouses. When stored properly, under cover and away from direct sunlight, extreme temperatures, and as per the manufacturer's recommendations, the shelf life is 12 months. In extremely tropical climates, it is advisable to store the product in a cooled environment. Excessive humidity and prolonged exposure to UV rays can reduce the shelf life of the product.

SAFETY

DUCRETE FRM is formulated without any hazardous substances. However, as with all construction chemical products, it is important to exercise caution. When handling DUCRETE FRM , it is recommended to wear protective clothing such as gloves and goggles. For maximum safety, wearing a long sleeve overall, safety shoes, and a face mask is also advised. After each use, reseal the containers and store the product according to the safety instructions on the label. In case of contact with the skin or eyes, immediately rinse with fresh water. If any of the product is accidentally swallowed, do not induce vomiting, but seek immediate medical assistance. For more detailed information, please consult the Material Safety Data Sheet (MSDS) provided.

TECHNICAL SPECIFICATIONS

Property	Value
Appearance	Powder
Bulk Density	1.4
Grain Size	Up to 2mm
Special Ingredients	Special Binders, polymers and fibers
Corrosion	Chloride Free
Compressive Strength @28 Days	75 N/mm ²
Flexural Strength @28 Days	12 N/mm ²
Setting Time @30°	2.5 hrs