

INDUCRET SC-10

HIGH STRENGTH, FAST-SETTING, FIBER-REINFORCED, NON-SHRINK, DRY PROCESS CEMENT-BASED SHOTCRETE & REPAIR MORTAR

Product Description:

INDUCRET-SC10 is a ready-to-use single component, fast-setting, high-performance, high-strength, cement-based, fibre-reinforced, non-shrink, dry process shotcrete mortar. INDUCRET-SC10 is formulated to provide a durable structural shotcrete repair mortar with high early strength, reduced rebound with a high build thickness without sagging. INDUCRET-SC10 contains selected hydraulic binders, silica fume, accelerating admixtures, alkali-resistant polypropylene fibre, shrinkage compensating additive and well-graded quartz sands.

Primary Uses:

INDUCRET-SC10 is formulated to be used in:

- Structural repair for large areas of reinforced repair where corrosion of the reinforcement such as bridges, tanks, etc.
- Rock stabilization.
- Sealing & lining and repairing tunnels, and mine roadways.
- Concrete repairs in a thick layer in one shot.
- Concrete repairing that requires fast setting and fast strength
- gain such as offshore structures, piers, and quay walls.
- Swimming pool construction.
- All similar works.

Advantages:

- Ready-to-use.
- Non-shrink.

- Low permeability, durable.
- Non-toxic and does not contain harmful ingredients.
- Chloride and nitrate-free.
- High build can be applied up to 200mm thickness per pass.
- Fiber-reinforced, no risk of cracking.
- Reduced rebound.
- Excellent adhesion to concrete and steel.
- Fast early strength gain
- Excellent abrasion and impact resistance.

Standards:

INDUCRET- SC10 is formulated to comply with all requirements of ASTM C-1480: Package Preblended, dry, combined materials for use in wet or dry Shotcrete applications. "INDUCRETE- SC10 complies with the requirements of IS 9012; "Recommended Practice for Shotcreteing" and EN 1504 – 3.

Technical Properties:

Appearance	: Grey powder free from Lumps.
Specific Gravity @ 23°C	: 2.2 ± 0.05 (mixed materials).
Maximum aggregate size	: 4 mm.
Chloride content	: Nil.
Mixing Water	: 3 Liters / 25 kg.
Yield (Liters)	: 12.5 - litres.
Setting times @ 23°C	: 7 -10 minutes.
Compressive strength (N/mm ²)	
• After 3 - days	18.250 N/mm ²
• After 7- days	24.756 N/mm ²



Flexural Strength (N/mm²)

- After 3 - days 6.237 N/mm²
- After 7 - days 6.854 N/mm²

Consumption

: The consumption is influenced by the 2 substrate conditions, for the smooth substrate, 2.2 kg /mm/ m. 5 - 10 % extra materials shall be calculated for loss.

Guides For Use:

Surface Preparation:

All surfaces must be sound, clean and free from dust, grease, oils, and curing compounds, that will affect the binding between the product and the substrate. The concrete surfaces shall be soaked with clean water prior application of INDUCRET-SC10. The concrete surfaces shall be saturated surface-dry (SSD) prior to the application. Steel surfaces should be free from rust or corrosion traces to achieve SA 2½.

Method of Applications:

INDUCRET-SC10 is cementitious materials and both ACI and EFNARC shall be followed for surface preparation, equipment, spraying & execution, and curing. Please, refer to:

- ACI 506.2-95: Specification for shotcrete.
- EFNARC: European specifications for sprayed concrete.
- EFNARC: European specifications for sprayed concrete: guidelines for specifiers and contractors.
- EFNARC: European specifications for sprayed concrete: Execution of spraying.
- ACI 506.3R-91: Guide to certifications of the shotcrete nozzle head.

- ACI 506 R-90: Guide for shotcrete.

Applications:

INDUCRET-SC10 shall be put directly into the hopper of the dry process shotcrete pump. The recommendations should be followed during mixing, placement, and curing. BETOCRETE® Range can be used for this purpose to achieve the optimum properties.

Cleaning:

Clean the tools & equipment or spillages with normal water.

Estimating & Supply Packaging:

INDUCRET-SC10 is available in 25kg bags.

Yield:

12.5 Liters.

Storage & Shelf-Life:

12 months when stored in original, unopened bags and elevated from the floor in a covered & well-ventilated storage area away from extreme temperatures, and any source of moisture. The accurate amount of water will be added to the spray nozzle and controlled by the nozzle man for proper applications: a little amount of water will increase rebound while more water will lead to sagging. **Finishing:** After finishing spraying, if the surface to levelled, it shall be done immediately. This will be carried out by trowel. If the surfaces will receive another coating, the surfaces must be finished with a wooden flat or wet sponge.

Curing:

INDUCRET-SC10 is cementitious material and thus should be cured with the ACI standards.



Health & Safety:

- INDUCRET-SC10 is non-toxic & does not contain any harmful ingredients.
- For disposal follow the local regulations.
- Splashes on the skin can be washed with soap and water.
- For more details about any safety requirement, please refer to a valid MSDS.

