

INSTACEM CONCRETE REPAIR SYSTEM

DESCRIPTION

INSTACEM CONCRETE REPAIR SYSTEM (CRS) is a specially formulated, pre-mixed cementitious concrete powder. The material mixes readily with water to produce a non-shrink, water-resistant repair material that hardens to give a high strength product.

QUALITY ASSURANCE

INSTACEM CRS is a Quality Assured product produced to BS EN ISO 9001:2000

USES

- Concrete repairs to reinforced concrete structures
- Load bearing and structural applications
- Repair and protection of concrete in marine environments
- Motorway bridges, viaducts and carriageway repairs
- To repair concrete floors, car parks, pathways, loading bays, roadways and motorways

COMPONENTS & APPEARANCE

INSTACEM CRS is a blend of fine cements, high quality graded sands and aggregates, polymers and admixtures. **INSTACEM CRS** is a grey cement powder with graded filler.

YIELD

25kg powder yields 11.50 litres of repair concrete. 1m³ of **INSTACEM CRS** requires 2.175 tonnes of powder. (2 units yields approximately 1 m² at 25mm thick)

BENEFITS

- Designed to Department of Transport Specification for Highways Works
- Portland cement based, acrylic modified and microsilica enhanced
- Quickly and easily mixed, pumped or trowelled and placed
- Water resistant
- Will not segregate or bleed, and is readily pumpable
- Excellent mechanical strengths and good bond strengths
- Resistant to static, dynamic and vibrational stresses
- Shrinkage compensated, low alkali cements equivalent Na₂O below 3.0kg/m³
- Incorporates non-reactive graded sands safe from ASR attack
- Contains no chlorides, ferrous metal or other deleterious substances
- Economical, non toxic and safe to use



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MIXING INSTRUCTIONS

INSTACEM CRS is mixed with water using a suitable container, a pneumatic or electric power tool (1kW), and a stirrer. Large amounts of material may be mixed using a forced action paddle mixer, or mixer pump. Add 3.5 litres of water to the container or mixer. Pour 25kg of powder onto the water while mixing. For batches of 2 or more bags, repeat the procedure. After all the powder has been added, mix for 30 seconds. The concrete is now ready for use. Alternatively, small amounts of the material can be prepared by adding the powder to a quantity of water in stages, while mixing to obtain the required consistency.

APPLICATION & PREPARATION

All necessary preparatory work must be completed before the concrete is mixed. Ensure that all surfaces with which **INSTACEM CRS** comes into contact are clean and dust-free. A strong concrete substrate free of all friable material will enhance a good bond. All surfaces to be prepared should be thoroughly dampened out, though free from standing water. Apply 2 coats of **INSTACEM Primer Latex** (see data sheet) and while still tacky (wet) place the mixed **INSTACEM CRS**.

PLACING

Shutters must be impermeable to the passage of water, and strong enough to contain and support the concrete. Sufficient hydrostatic head must be given to the material to enable it to flow completely through the void to be filled. Make sure that enough **INSTACEM CRS** is mixed and available so that the operation can be performed in one continuous pour.

When placing by trowel work swiftly to build repair at thickness not exceeding 50mm. Thicker sections up to 250mm must be placed in 50mm layers, if in doubt ask our Technical Advisory Service.

CURING

It is essential that a good concreting practice is maintained at every stage of the repair. Ensure that **INSTACEM CRS** is cured properly under moist conditions for 2-3 days after placing **INSTACEM CRS** is able to take foot traffic after 1 hour and heavy traffic after 4-6 hours depending on conditions

PACKAGING AND SHELF LIFE

INSTACEM CRS is packaged in 25kg plastic tubs (re-sealable) for larger work 25kg water resistant paper bags on pallets. Stored in a cool, dry environment **INSTACEM CRS** has a 12 month (minimum) shelf life.

HEALTH AND SAFETY

INSTACEM CRS is non-toxic and safe to use. However, use the same precautions as with any cementitious product, wear protective clothing, goggles and a dust mask while mixing and applying the material.

TECHNICAL DATA

10% - 14% water/powder ratio at 20°C.

Consistency:	Plastic Mortar of Flowing Concrete	
Consistency Life:	30 minutes	
Initial Set:	1 hour	
Final Set:	2 hours	
Density:	2250kg/m ³	
Minimum Compressive Strength:	1 day	15 N/mm ²
	7 days	35 N/mm ²
	28 days	60 N/mm ²