BUILDING CHEMISTRY INDUSTRY

Method Statement for Cementitious Concrete Repair Material- BC Repair 200

1. Introduction

This method statement outlines the process for repairing damaged concrete using cementitious repair materials Viz BC repair 200 . The procedure ensures that the repair is durable, maintains structural integrity, and provides a smooth finish that blends with the surrounding concrete.

2. Scope of Work

The scope covers the repair of concrete structures using cementitious materials,viz BC Repair 200 including surface preparation, material mixing, application, curing, and quality control.

3. Materials

Cementitious concrete repair material (pre-bagged or site-batched- BC Repair 200
Water (potable)
Reinforcement (if necessary)

4. Tools and Equipment

Chipping hammer (manual or pneumatic)
Grinder and wire brush
Mixing equipment (mechanical mixer)
Trowels, brushes, spatulas
Water sprayer
Measuring tools

5. Health and Safety

Wear appropriate PPE (gloves, goggles, helmets, and safety boots).
Ensure adequate ventilation when working indoors.
Follow all safety protocols for working with power tools and handling cementitious materials.

6. Surface Preparation

Inspection:

Identify and mark the areas requiring repair.

Chipping:

Remove the damaged or loose concrete using a chipping hammer until sound concrete is exposed. The edges of the repair area should be square-cut to avoid feather edges.

Cleaning:

Clean the surface to remove dust, debris, and any contamination (oil, grease, etc.) using a wire brush, compressed air, or water jet.

Reinforcement Inspection:

Check the exposed reinforcement bars. If corroded, clean them using a wire brush or sandblasting. If they are severely damaged, replace or provide additional reinforcement.

7. Bonding and Priming

If required, apply a bonding agent or slurry of cement and water to the prepared surface to enhance adhesion between the old and new concrete. This should be applied just before placing the repair material.

8. Mixing the Cementitious Repair Material :BC Repair 200

Follow the manufacturer's instructions for mixing proportions.

Add the correct amount of water and mix the material in a mechanical mixer until a homogeneous, lump-free consistency is achieved.

Avoid overmixing as this may introduce excess air or reduce workability.

9. Application of the Repair Material

Dampen the surface slightly before applying the repair material to prevent rapid water loss from the mix.

Apply the repair material in layers if required. For thick repairs, multiple layers should be applied, allowing each layer to firm up before the next is placed.

Compact the material into the repair area, ensuring full contact with the substrate and no voids.

Use a trowel or other finishing tools to achieve the desired surface texture and profile, blending the new material with the existing concrete.

10. Curing

Cure the repaired area immediately after finishing to prevent rapid water loss, which could lead to cracking.

Use curing methods such as applying a curing compound, covering with damp hessian, or continuous mist spraying as per the manufacturer's recommendations.

Curing should continue for at least 7 days to ensure proper hydration and strength development.

11. Inspection and Quality Control

Ensure the repair material is properly bonded and free from defects such as cracks, shrinkage, or delamination.

Perform a visual inspection of the finish to ensure it meets the project specifications.

In some cases, testing such as pull-off tests or core sampling may be required to verify the repair's strength and adhesion.

12. Completion

After curing, remove any curing compounds or coverings.

Conduct a final inspection and obtain approval from the project engineer or supervisor.

Clean up the worksite and dispose of any waste materials appropriately.

13. Documentation

Record all repair activities, including material batch numbers, mixing ratios, and curing times.

Submit the report to relevant stakeholders for documentation and quality assurance purposes.

This method statement provides a clear and structured approach for performing concrete repairs using cementitious materials, ensuring durability, quality, and compliance with safety and technical standards.