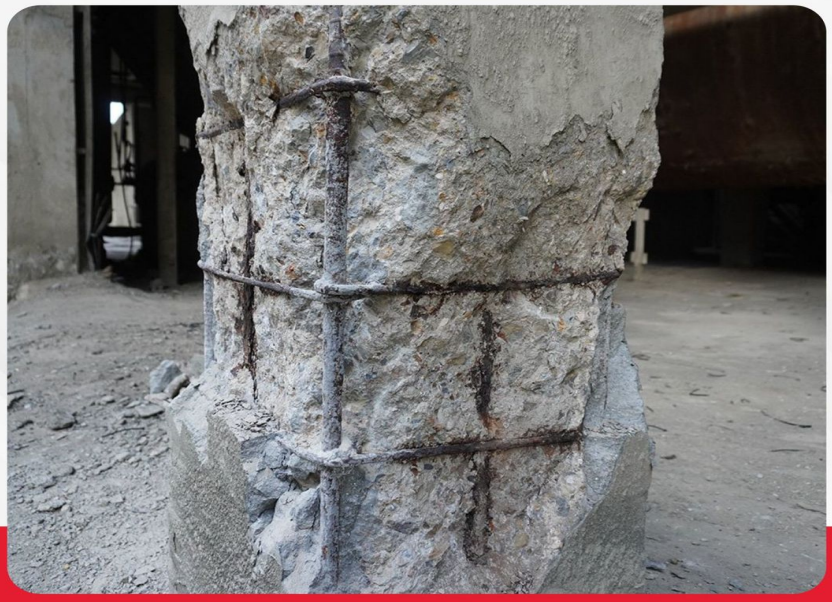


Colum breakage

Reasons for Column Breakage

1. Honeycombing during concreting due to poor vibration.
2. Mechanical impact or accidental damage at site.
3. Inadequate cover leading to rebar corrosion.
4. Settlement cracks or shrinkage during curing.
5. Poor quality material/workmanship during casting.
6. Absence of admixture during construction.

Step by Step Procedure

1. Surface Preparation

- Remove all loose, unsound, and cracked concrete around damaged portion.
- Cut edges neatly in rectangular or straight shape.
- Expose reinforcement and ensure at least 10 mm clearance all around.
- Clean surface by air blower or water jet, keep in SSD (saturated surface dry) condition.

2. Reinforcement Treatment

- Remove rust with Rust remover REDWOP 3IN1.
- Apply coating of anti-corrosive passivator BARGUARD to exposed re-bars.
- Add extra reinforcement if required as per engineer's instruction.

3. Shuttering / Formwork

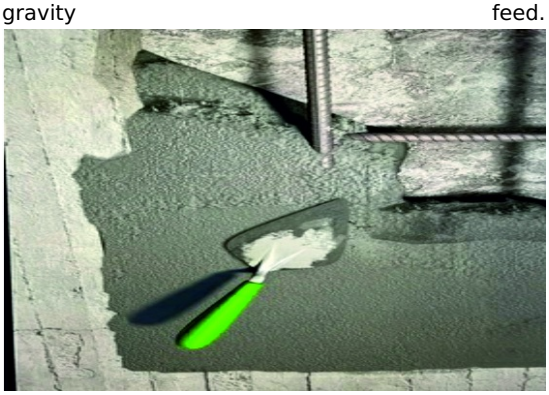
- Fix strong, leak-proof formwork around the damaged portion of column.
- Seal all joints with foam/mastic to avoid slurry leakage.
- Provide inlet and outlet ports for pouring/pumping micro concrete.

4. Bonding Coat

- Apply epoxy bonding coat of EPBOND EP or polymer-modified slurry of BUTABOND SBR to concrete substrate.
- Mix BUTABOND SBR and OPC 53 grade Cement in ratio of 1:2 and apply it using brush & Spray pump, leave it for minimum 6 hours for its proper setting.
- If higher strength is required use epoxy bonding agent EPBOND EP.
- Mix Base and Hardner of EPBOND EP in 3:1 ratio by paddle and apply it by brush.
- Use only pre-packed, non-shrink, flow-able micro concrete.
- Add water strictly as per manufacturer's guideline.
- Mix mechanically using paddle/forced action mixer till uniform flow-able mix is achieved.

5. Mixing and Application of Micro-concrete

- Mixing- For each 25 kg bag of MICROCONE RGL
- Add 4.5 to 4.75 litres of clean potable water. Use a forced-action mixer of adequate capacity.
- Ensure MICROCONE RGL is thoroughly and uniformly mixed.
- Provide slurry-tight formwork that is Rigid and non-deformable and Free from leakage under hydraulic pressure generated by the micro concrete Ensure the formwork is properly fabricated and erected, especially where the material is to be placed by gravity feed.



6. Curing

- Keep formwork undisturbed for 24–48 hrs (as per product).
- After formwork removal, cure surface with wet hessian cloth/polyethylene sheet, OR apply curing compound.
- Continue curing for minimum 7 days.

7. Application of wall putty

- Wet surface with water 1 hour prior to application.
- Add 3 part of WHITPLAST SF to 1 part of water in suitable container and blend it properly
- With electric blender to get lump free paste.
- Apply paste on the damp surface using a painter's putty knife and level paste in thin layers, until any irregularities or protrusions have been completely covered.
- This may require 2-3 coats. Allow each coat to dry for 20-30 minutes before the application of further coats.

8. Application of final coat

- Apply first coat of NEPRU or MULSI by brush/roller/spray. After 4 to 5 hours apply second coat.

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