

TECHNICAL SPECIFICATION

**RETROFITTING METHODS FOR
DAMAGED R.C.C STRUCTURES**

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Removal of the deteriorated cover concrete by manual/ mechanical chipping.

Exposing the corroded reinforcements if possible all around.

De rusting the reinforcements by soft chiseling, scrubbing, emery paper & wire brush.

Neutralizing the exposed concrete surface by water jetting to achieve a pH value greater than 7.

Providing New Reinforcement of nominal cross section if the reduction in cross sectional area of rebar's is more than 25% due to rusting.

OR

Providing New Reinforcement as per design not considering the Strength still provided by the old reinforcements.

Providing Anti Corrosive Coating either Acrylic Polymer based such as **Hind Anti Rust** or epoxy zinc based such as **Hind Anti Rust EZ**.

Providing a bonding coat either acrylic Latex Polymer based such as **Hind Styrene BR** or epoxy resin based such as **Hind Bond EBA**.

Rebuilding the chipped off concrete portion by suitable method. Providing a thin layer of cement sand plastering with integral waterproofing admixture such as **Hind Proof No. 1** and a protective coating based on Acrylic polymer such as **Hind Crete Plus WPM/Hind Crete Plus WPM (E)**.

Pressure injection grouting with Epoxy Resin Grout such as **Hind ERS 21/Hind ERS 212** as per the thickness of cracks if formed in the R.C.C slabs/Beams/Columns.

Fixing Epoxy Bonded M.S Plate with **Hind ERS 21P & Hind ERS 2115** mortar for severe shear or bending cracks to strengthen the column/beam/slab before jacketing.

Jacketing with Polymer modified concrete based on **Hind Styrene BR** with a polymer loading of 5-10 % by weight of cement.

Manually replacing the chipped off portion by polymer modified concrete based on **Hind Styrene BR** if the chipped of portion is not uniform through out the length of beam/column.

Jacketing with High strength Micro concrete such as **Hind HSMC** for a designed thickness around the core of the original column/beam.

Guniting/Shot Creting the chipped off surface with 1:3 cement sand mortar with quick setting compound **Hind Shot Set(P)** for dry shotcreting or **Hind Shot Set (L)** for wet shot creting.