

repairing and water proofing concrete walkway balconies

The Committee of a Body Corporate of a post war inner city units recognised the potential safety risk of a water damaged balcony walkway and stairs.

Typically concrete will be crack in areas of exploding concrete from reo bars rusting. The job requires repairing concrete in damaged areas, waterproofing the surface with a trafficable product and managing the exit of water from the balcony to avoid damage to the underside.

PRODUCTS USED

- Rust Converter and Primer
- Contec Plug – Rapid set concrete repair compound
- Sikaflex Pro – poly urethane, backing rod
- Microl 2000 – Heavy duty waterproofing membrane
- Fibreglass matting
- Galvanised, angle metal strip bars
- Classic Paints – Exterior white paint

DAMAGED



REPAIRED

'HOW TO' INSTRUCTIONS



PREPARATION:

Preparation is the key to a good job.

When working on old concrete slabs, a detailed observation of the surface and surrounding area is required to identify all the problems and the causes. The area will need a thorough cleaning prior to application of products.

CUT IN PROBLEM AREAS:

Start by identify problem areas, plan to fix these areas first. Issues relating to holes from penetrating pipes and exploding concrete are high priorities. The primary job is to repair areas to stop water getting into the concrete slab. Pipe holes should be repaired top and below using backing rod, then filling the void with poly urethane. Exploding concrete requires the surrounding concrete to be 'chased' back and around the effected reo. Clean back reo to secure metal. Coat reo with rust inhibitor. When working on the underside of concrete slab, progressively build back shape with rapid set concrete compound. An option is to finish off with a fairing compound.

APPLICATION METHOD:

1. Complete the repair 'cut in' in all areas and allow to cure.
2. Plan the work area for membrane application. Cut strips of fibreglass matting or use polycloth (125mm wide) to apply to corners, edges and patch repairs. Use masking tape as required. Brush a membrane coat, while wet, lay in strips, then apply a second membrane coat. Leave to cure.
3. Coat broad areas with waterproofing membrane and fibreglass matting. The same principle as above, except application is done with roller and bigger sheets of fibreglass matting.
4. Attach galvanised metal drip rails to the lower edge of the balcony slab to direct water from the underside of the slab. Use poly urethane and masonry nails to attach.
5. Apply a final coat of water proofing membrane over the surface. Plus paint the underside of the balcony with external paint

SAFETY CONSIDERATIONS:

Safety should always be considered. The main considerations for this type of job is the physical conditions rather than product hazards. Protective eye, breathing and work wear are particularly important. Product safety is highlighted on the packaging, noting that most water based membranes are relatively benign.