

## Crystalline capillary waterproofing system for concrete substrates

### Uses

Integra is an economical cementitious coating system for waterproofing concrete against positive and negative hydrostatic heads of water.

Its uses include: sewage treatment and water treatment tanks, pipes, tunnels, manholes and below grade basements including retaining walls.

### Advantages

- Penetrates concrete, seals capillary tracts and hairline cracks
- Cost effective
- Effective waterproofing treatment for hydrostatic conditions
- Contains no chlorides
- Easy to apply
- Exterior and interior applications
- Can be applied onto new and old concrete surfaces
- Can be used above or below ground

### Description

Integra is a crystalline capillary concrete waterproofing system containing proprietary blends of Portland cement, quartz aggregate and special chemicals. In the presence of moisture, the active chemical additives in Integra penetrate concrete and react chemically with free lime to produce insoluble crystals. This crystalline growth reduces concrete porosity by blocking capillaries and filling hairline non-structural cracks.

### Application instructions

#### Surface preparation

Surfaces must be clean and sound. Remove all oils, dust and laitance ideally by water blasting.

Note that all surfaces must be damp prior to the application of Integra.

#### Mixing

##### Slurry consistency

Add clean potable water to Integra. Mix 1 part water to 2.5 to 3 parts powder by volume, or 7.0 to 7.5 litres of water per 25kg bag. Mix thoroughly with a slow speed drill and paddle until a creamy consistency is achieved.

##### Mortar consistency

Add clean potable water to Integra. Mix 1 part water to 4.5 to 5 parts of powder by volume, or 3.7 to 4.2 litres of water per 25kg bag. Mix thoroughly with a slow speed drill and paddle until a mortar consistency is achieved.

Do not mix more material than can be applied in 20 minutes. If material thickens re-stir to reduce consistency. Do not add extra water.

##### Application

###### Dry shake for newly poured concrete

Use Integra as is directly from container. Wearing rubber gloves, distribute the powder evenly by hand, over freshly poured concrete at 1.2 to 1.3 kg/m<sup>2</sup> before final floating operation. It is best to distribute the powder at half the recommended rate in one direction, and the other half at a right angle to the first application. Keep hands as close as possible to the surface to prevent material from blowing away. For large areas, a rotary type spreader may be used. Float slab and trowel to final finish.

###### Slurry coat for existing concrete

Integra slurry coat may be applied with a brush (synthetic bristle), broom, or plaster sprayer. Be sure to work slurry well into openings, rough surfaces, joints and routed out areas. Apply second coat, when required, when first coat has taken an initial set (usually within one hour). If first coat has dried out, moisten surface before applying second coat.

During the application of Integra no water should be allowed to seep through the substrate. Water leakages should be presealed by means of the quick set plugging mortar, Renderoc Plug 1 (see separate data sheet).

###### Curing and protecting

All Integra applications must be kept moist for a minimum of 48 hours. After initial set, moist curing, using water spray is recommended. Treated surfaces shall be fog sprayed 3 to 4 times daily for the 48 hour period. For warmer climates, more frequent spraying may be required. It is important to keep Integra moist to allow the crystal formation to occur. Call your Fosroc representative for specific recommendations on the use of curing compounds. Protect surfaces from traffic for 48 hours and heavy traffic for 7 days. Freshly applied Integra must be protected from extreme weather conditions such as rain, strong winds, high temperatures and freezing for a period of not less than 48 hours after application.

###### Limitations

Not recommended for application temperatures below 5°C. Full activation and effectiveness may occur 2-3 weeks after application.



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## Clean-up

Prior to curing, Integra may be cleaned from tools and other surfaces with water.

## Precautions

Integra contains chemicals that may cause irritation to the eyes and skin. Goggles, rubber gloves and long sleeves should be worn when working with these products. Read warnings noted on product package and refer to product Material Safety Data Sheet (MSDS) prior to use.

## Storage

Integra should be stored in protected dry areas.

## Shelf life

12 months when left in original unopened package.

## Packaging

25 bags.

## Coverage

Two coat application.

By brush: 1-1.5kg/m<sup>2</sup> per coat

By trowel: 2-2.5kg/m<sup>2</sup> per coat

Actual coverage rates will depend on the profile and porosity of the substrate.



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