



# KODEX E50

WATER BASED TWO PACK EPOXY

## DESCRIPTION

Kodex E50 is a two component water based E50oxy coating used to prime, seal and coat concrete or masonry surfaces. It cures to a tough chemical and water resistant coating having excellent adhesion to sound concrete

## FEATURES

- Water based
- Ultra low VOC
- Environmentally friendly
- Excellent water resistance
- Excellent oil resistance.
- Excellent adhesion to fresh concrete
- Applicable to damp surfaces
- Resists hydrostatic pressure when cured
- Requires a UV resistant top coat when in direct sunlight

## Use Area

- Fish ponds
- Retaining walls
- Reverse Tanking
- Primer for acrylic & polyurethane membranes
- Dust sealing concrete floors
- Waterproofing concrete slabs prior to vinyl and timber overlays
- Concrete curing membrane
- Moisture barrier on damp walls/floors

## PACKAGING:

- 4 Litre
- 20 Litre

## TECHNICAL INFORMATION

**Colour** Wet - Part A - Light Grey  
Part B - Light Grey  
Dried-Semi gloss. Matt when aged

**Drying Time:** Recoat: 2-4 hours  
Based on ambient temperatures of 23°C and 50% Relative Humidity  
Applying finishes over: 24 hours  
Full Cure: 7 days

\*Drying/curing times may be prolonged in cooler temperatures

**Pot Life** 1-2 hours

**Volume solids** 48%

**Mixing ratio:** 1:1 by volume

**Wet film thickness:** 300 micron/0.3mm per coat

**VOC Content (ISO 13741)** Nil

The VOC Content of Kodex E50 is below the maximum VOC Content for Architectural and Interior Sealants as required by Green Star Ratings tools Education v1, Healthcare v1, Industrial v1, Multi Unit Residential v1, Office Interiors v1.1, Office Design v2, Office v3, Office As Built v2 and Retail Centre v1

**Water Vapour Transmission ASTM E96** 1.4g//24h/m<sup>2</sup> - 1 x coat  
0.8g//24h/m<sup>2</sup> - 2 x coats  
300micron/0.3mm DFT

**Adhesion to concrete ASTM 4541** 1.06MPa

**Hydrostatic pressure resistance** 250kpa / 25m head of water pressure



## SUBSTRATES

- Concrete
- Cement and cement render
- FC and CFC Sheeting
- Block & Brick work
- Masonry/Stone
- FC, CFC, asbestos and Blue board sheeting
- Particle board (see notes below)
- Scyon & composite sheeting
- Acrylic coatings
- Vitreous, ceramic & terra cotta tiles
- Bitumen
- Metal
- Milled finish alloy angles
- Timber, Particle Board, Plywood
- Masonite
- Plaster board
- Extruded foam
- Fibreglass/Gelcoat/PVC

## TEST STANDARDS

- Conforms to ASTM E96 for water vapour transmission
- Resistant hydrostatic head of water pressure up to 25 meters (or 25kPa)

## SUBSTRATES

Bricks, concrete, Pre cast concrete, Bricks, Masonry, Cement sheet, Masonry

## CLEANUP

- Wash all equipment in water and or detergent immediately on completion.
- Kodex E50 will cure under water. Therefore, do not leave items soaking.

## SURFACE PREPARATION

All surfaces must be structurally sound and all previous coatings, adhesives, efflorescence or laitance should be removed by chipping, abrasive blast cleaning, high pressure water washing, mechanical scrubbing or other suitable means. All surfaces must be cleaned free from dirt, grease oil or other surface contaminants. Holes, non-structural cracks and other surface deformities should be repaired.

## APPLICATION

Porous concrete will require 2 coats of Kodex E50. The first acting as a primer, should be diluted 10% with water to allow penetration into the pores of the concrete. Then apply another full coat. Mixing should be by means of a mechanical forced action mixer with a high shear stirrer. Premix each individual component then join the two components, by equal volume, mixing thoroughly for a minimum of 5 minutes until a blended coating is obtained. Avoid trapping air during mixing as this may cause pin holing. Only mix as much as may be used within the pot life of the product. Kodex E50 is a minimum two coat system. Apply with a brush or roller, and ensure to work the material into the substrate surface to fill voids and eliminate pin holing. Successive coats should be applied at right angles to the previous coat. It is recommended that the coating depth be tested at random points with a wet film gauge. Must be applied at a rate of 1.5m<sup>2</sup>/L in total (equivalent to two coats at 3.0m<sup>2</sup>/L per coat) to achieve an effective moisture barrier 300 micrometers (0.3mm) per coat.

## PRECAUTIONS

Refer to Kodex MSDS prior to use. Kodex E50 cure rates will be dramatically reduced if the relative humidity is above 85%. Do not apply to steel or metal surfaces. Do not add cementitious products to Kodex E50. Kodex E50 is not a waterproof membrane on its own. A dedicated waterproofing membrane should be used. In enclosed areas, such as water tanks or reservoirs, basements, or cubicles, ventilation should be provided to enable adequate evaporation of the coating. Allow to cure for a minimum of 24hours at 25°C/50% RH before applying waterproof membranes, adhesives, mortars, decorative coatings or other surface treatments. Kodex E50 will tend to chalk when exposed to UV light. For external use apply a UV resistant top coat. Discard any material that has exceeded the pot life or working time of the product. Do not apply over any substrates that have been previously treated or coated with curing compounds, PVA concrete bonding agents or acrylic coatings. These areas must be mechanically cleaned by grinding or shot blasting to produce a contamination free surface.

## COLD SUBSTRATES AND COOL CLIMATIC CONDITIONS:

Cure speed will be dramatically reduced if substrate surface or ambient temperature is below +10°C. If Kodex E50 is applied in cooler climatic conditions, substrate temperatures can produce amine blush, resulting in an oily residue and or areas of uncured tacky discolorations. It should be allowed to cure, then washed with clean, fresh water, Methylated Spirits or Xylene depending on the severity. Ensure removal of the contamination prior to application of any further coating to ensure no de-lamination. Follow mixing instructions and allow an extra minute to ensure a homogeneous paste is obtained. Allow to stand for 5 minutes after mixing as this will accelerate the drying time. Never apply thin coats as the rapid moisture loss will arrest or slow the drying reaction. Thin coats can also cause an amine blush. Store Kodex E50 in a 20°C environment 24 hours prior to use. If possible warm the substrate surface area by an air blower or use a blower after application. Always provide adequate ventilation during the curing cycle.

