

# HYDROSEAL CR

## CHEMICAL RESISTANT WATERPROOFING COATING

### DESCRIPTION

HYDROSEAL CR is a two component, water based, epoxy and polymer modified cementitious coating for the protection of concrete and ferrous metals. Advanced cement chemistry, microsilica, fibre, epoxy and styrene acrylic copolymer technology provide multi-functional protection with enhanced chemical resistance. Hydroseal CR is designed for easy application by brush or spray to give a smooth finish without sagging. Hydrates to a dense, highly alkaline coating with polymeric and resinous properties, offering low permeability to water and very high diffusion resistance to chloride ions and oxygen, to ensure long term protection. Hydroseal CR can be enforced with Hydroband 2000 to accommodate movement around details and over cracks and joints.

### USES

Hydroseal CR incorporates the benefits of Copolymer technology and epoxy resins into a water-based cementitious system to provide a hard durable coating with excellent resistance to water chloride ions, oxygen and aggressive chemicals. It is used as a stand-alone anticorrosion coating for non-ferrous metals as well as waterproofing and protection of concrete where enhanced chemical and abrasion resistance is required.

### ADVANTAGES

- Excellent abrasion and impact resistance
- Resistant to a large range of chemicals including hydrogen sulphide
- Excellent adhesion to cementitious and steel substrates
- Pre-packed in convenient and easy to handle sizes ready for on-site mixing
- Water-based products, cures without the release of solvents. Easily cleaned with water
- Resistant to 10 Bar negative and positive water pressure
- Very high diffusion resistance to carbon dioxide gas and chloride ions

Property	Value
Colour	Concrete Grey
Pot Life @20°C	30 minutes @ 20°C
Application Thickness	2mm in 1-2 coats
Application Temperature	5-35°C
Drying time	2-3 hours @ 20°C
Mixing Density	1850 Kg/M3
Compressive Strength	50-60 MPa @ 28 days
Adhesive Bond to Concrete	2 MPa
Adhesive Bond to Steel	3 MPa
Water Permeability Co-efficient	DIN 1048 - Part 1 1.43 x 10 <sup>-17</sup> M/sec
Oxygen Diffusion Co-efficient	Taywood Test DO2= 4.4 x 10 <sup>-5</sup> CM 2 s-1

### PROCEDURE

**Surface Preparation:** The areas to be treated must be free from all unsound material, i.e. dust, oil, grease, corrosion by products and organic growth. If necessary, the substrate should be repaired using a suitable Premcrete repair product. Concrete should have a minimum strength of 20MPa and surfaces should be cleaned to remove release agents, curing agents and surface laitance, preferably using wet grit or water blasting techniques. Steel should be cleaned back to bright metal. preparation has finished to obviate flash rusting.

**Priming:** When applying Hydroseal CR to steel it is self-priming and requires direct contact with the steel to afford maximum corrosion protection. When applying to concrete the prepared substrate should be thoroughly soaked with clean water until uniformly saturated without any standing water. All floor and deck applications must be primed with Epoprime AC.



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**Mixing:** Mix using a drill and paddle specially designed to entrap as little air as possible. Shake Part A (Liquid), pour into a suitable mixing vessel and slowly add part B (Powder). Mix for a minimum of 5 minutes until homogenous. The bottles of liquid and bags of powder are not to be part mixed or divided up.

**Detail work:** On steel apply a 100mm stripe of Hydroseal CR by brush to all welds, cut edges and fixings. On welds and cut edges, embed Hydroband. Over joints and large cracks in concrete, apply a 100mm stripe of Hydroseal CR.

**Application:** Hydroseal CR is ideally suited to brush application, although spray techniques should be used for large areas. Apply the first coat approximately 1mm thick, onto the prepared substrate. To ensure total protection, a second coat should be applied in the same way after approx. 60 minutes when the first coat is stable but not fully cured. Carefully check on completion for pinholes and misses and spot treat where necessary. The finished coating should be 2mm thick to give complete protection. When treating structures in the tidal zone the Hydroseal CR should be applied in one 2mm coat to avoid inter-coat contamination.

**Curing:** Hydroseal CR should be cleaned off tools and equipment immediately after use using water.

**Equipment Cleaning:** Protect the surface of the coating from strong sunlight and winds using Cureaid AC, polythene etc. Curing must commence within 10-15 minutes of the completed application.

## PACKAGING & COVERAGE

**Pack Size:** 30kg packs

**Yield:** 16.2 litres of mixed material. Coverage: A 30kg pack will cover 8.1m<sup>2</sup> at 2mm thick.

## STORAGE & SHELF LIFE

Store in dry, conditions in un-opened bags

## HEALTH & SAFETY

See separate material safety datasheet