

# UltraCrete Sensor Seal

Cold pour sealer for encapsulating loop detector cables

**ULTRA  
CRETE**



Pourable sealant for encapsulating and sealing Loop Detector Cables and Road Sensors into position in roads & highways.

- 2 part Loop sealant for deep penetration of cut slots in roads
- Easy to apply, low viscosity, pourable consistency
- Seals & Protects Loop Cables from surface moisture
- Withstands extremes of temperature
- Withstands and protects against the rigors of constant traffic.
- Excellent adhesion to the walls of cut slots in all road substrate types.
- Ideal as a durable joint filler and sealant for pavements and concrete cracks

## Applications

UltraCrete Sensor Seal is specifically formulated to encapsulate, seal and protect Loop Detector Cables from surface and ground moisture. UltraCrete Sensor Seal is a two-component, liquid polyurethane system that when mixed provides a pourable compound that, when cured, is durable and resists damage from traffic. In such applications, following encapsulation of the cable, the sealant is topped with oxidised bitumen used to provide the finished road surface. The products low viscosity allows for deep penetration, excellent bond to a variety of construction substrates and resilience to minor movements.

## Technical

UltraCrete Sensor Seal conforms to the loop cable encapsulating requirements of Manual of Contract Documents for Highway Works - MCH 1540. Specification for the Installation of Detector Loops on Motorways and All-Purpose Trunk Roads. Please refer to the standard for specific details for installation.

## Preparation

When being used for installation of Detector Loops please refer to the specific design depths and widths of cut slots to be specifically used in concrete and bitumen road surfaces outlined in the specification supplied for the contract. Please note as per the aforementioned standard above, Porous Road Surfaces have different design that excludes the use of sealant. After cutting the slots in the road, all slots should be thoroughly cleaned of silt and debris and dried to no wetter than damp dry, immediately before installing the cables and backfilling with

UltraCrete Sensor Seal (i.e. no standing water visible in the slots).

The cable for each loop should be dry before installation and shall be laid evenly in the cut slots without kinking. It shall be lightly tamped into position to the required depth below the road surface. The loop circuit should be tested to ensure working, before backfilling commences.

## Mixing & Placing:

For Detector Loop sealing:

UltraCrete Sensor Seal is supplied as a two-component polyurethane system in pre-weighed packs which total to a 5kg mixed unit. The components consist of a 4.2kg metal tin of resin (colour - off white) and a 0.8kg poly-bottle of hardener (colour - black). Once preparation has been completed the Hardener component should be added to the Resin component tin, while mixing using a mechanical drill and paddle. The contents should be mixed thoroughly until they are homogenous and consistently black in colour. Once mixed, the full contents should then be transferred to a spouted container for ease of pouring and ready for immediate use. The mixed product has a typical Pot Life of 20 minutes at ambient temperature and humidity.

It should be planned to pour immediately from the spouted container into the cut slot in the road to encapsulate and seal the cable. The liquid level should be filled short of the surface, to the specified depth. When set, the sealant can be topped to the surface of the slot with oxidised bitumen or as per the specification being used.

NB When mixing UltraCrete Sensor Seal components together, DO NOT attempt to mix part units always mix full units to ensure accurate measurement.

#### Precautions:

Avoid using product in extremes of site conditions. This will have an adverse effect on the products curing. Warmer site conditions or material stored in warm/hot conditions will increase the speed at which the mixed product cures, therefore shortening the cure time. Cold site conditions will slow down the cure rate extending the cure time. Do not use if there's frost on the ground.

#### Storage:

Store in a dry place, out of direct sunlight, in a sealed original container at temperatures between 5°C & 30°C

#### Shelf Life:

Shelf Life in correct storage conditions is 12 months.

#### Health, Safety and Environmental

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash your hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste responsibly and in accordance with local authority requirements. A full material datasheet relating to this product is available from [instarmac.co.uk](http://instarmac.co.uk)

#### Quality assurance

All products are manufactured in a plant whose quality management system is certified / registered as being in conformity with BS EN ISO 9001. Our products are guaranteed against defective materials and manufacture, and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept any liability arising from the application or use of our products because we have no direct or continuous control over where and how our products are used. All products are sold subject to our conditions of sale, copies of which may be obtained on request.

#### Technical data

##### Resin

Unit size	4.2kg metal tin with lever lid and handle
Colour	Off white
Density	1.5-1.6
Viscosity @ 20°C	8000-14000 cps

##### Hardener

Unit size	0.8kg screw top poly bottle
Colour	black
Density	1.15 to 1.25
Viscosity @ 20°C	200-300 cps

##### Fully mixed unit properties

Coverage (detector loop cut slots)	Typically 10 mixed units per carriageway lane
Total mixed unit size	5kg
Colour	dark grey
Density	1.45-1.55
Viscosity @ 20°C	5500-6500 cps
Pot life @ 20°C	20-25 minutes
Set time @ 20°C	30-35 minutes
Tensile strength	14N/mm <sup>2</sup>

#### Contact Us

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