

# ENVIROBED® CD534 Flowable High Performance Bedding Mortar

**ULTRA  
CRETE**



Specifically formulated for utility reinstatements. Great for bedding large section manhole covers and frames.

- BT LN550 and LN320 compliant
- Conforms to CD534 (formerly HA104)
- Can be used in the wet
- Combines as a bedding mortar and backfill
- Aids lateral stability
- HAPAS approved

## Applications

UltraCrete Envirobed® CD534 Flowable (formerly HA104) is supplied as a two-component system, which contains a blend of special cements, polymer graded aggregates and recycled glass. The combined components provide a high strength mortar, which can accommodate depths of 10-75mm in one pass. If necessary, greater depths can be achieved with the layer upon layer method. The combined components provide a high performance flowable mortar, which can grout the pre-levelled frame to the required depth. With superior compressive, tensile and flexural strengths reached after just 3 hours, Envirobed® CD534 Flowable provides all the performance but none of the environmental hazards of traditional resinous materials, such as hazardous waste disposal.

## Preparation

All surfaces should be free from oil, grease, dust or any other visible contaminants. Remove all loose particles and work on a sound substrate. Pre-soak the area with clean water prior to application to aid bond. Remove ponded water beforehand.

## Mixing

Envirobed® CD534 Flowable can be mixed by a forced action mixer or by drill and paddle.

**Mechanical Mixing:** Pour contents of the polymer liquid bottle into a wide based mixing vessel such as a Gorilla Tub. Add half the bag of Envirobed® CD534 Flowable powder and mix with a slow speed forced action mixer (around 300-400rpm) until the powder is absorbed. Add a further quarter of the powder and mix followed by the remaining powder. A total mixing time of 2 minutes should be observed. Check the

consistency and add the remainder of the liquid if needed. This allows a change in consistency without effecting performance.

**Drill and paddle:** We recommend a grout mixing paddle with a slow speed drill and paddle (around 300-400 rpm), using a wide based mixing vessel such as a Gorilla Tub. Mix for at least 3 minutes. Note: Insufficient mixing will seriously reduce product performance. Do not add water or part mix.

## Placing

Prior to using Envirobed® CD534 Flowable, internal voids of the frame and brickwork should be dammed with Envirobed® CD534 Standard Mortar. This will prevent the Envirobed® CD534 Flowable bedding mortar pouring out into the chamber. Wait until the mortar has stiffened (assess by tapping a hammer into the mortar). Envirobed® CD534 Flowable should then be prepared.

Application should be within 4 minutes of mixing, by pouring from one side of the pre-levelled frame at a time, working all the way around the frame until it flows and encapsulates the framed flange to a minimum depth of 20mm above the flange. Once the bedding material has reached its initial set, the backfill material UltraCrete QC10/F can be poured around the frame to fill the void between the mortar edge and vertical trim back.

## Cleaning

Envirobed® CD534 Flowable should be removed from tools and equipment with clean water immediately after use. Cured material can also be removed mechanically.

### Storage

**Powder bag:** Store in closed original bags at temperatures between 5°C and 30°C. Avoid frost and sunlight. This product must be stored in unopened bags, clear of the ground in cool dry conditions and protected from excessive drafts. If stored correctly and used within 8 months of the date shown on the bag, the activity of the reducing agent will be maintained and this product will contain, when mixed with water, no more than 0.0002% (2 ppm) soluble Chromium (VI) of the total dry weight of the cement.

**Liquid additive:** Extreme temperatures can damage this product in its liquid form. Store containers at temperatures between 5°C and 30°C. Liquid should not be exposed to excess heat, cold or frost during storage or when being transported between sites.

### Shelf Life

8 months in above conditions. Please note: The use of this product after the end of the declared storage period may increase the risk of an allergic reaction. High temperatures and high humidity will lead to a reduced shelf life.

### 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

Compressive strength (N/mm <sup>2</sup> )	
1 hour	25.00
3 hours	44.00
24 hours	50.00
7 days	54.00
28 days	60.00
Tensile strength (N/mm <sup>2</sup> )	
3 hours	5.20
24 hours	5.50
7 days	5.60
28 days	5.80
Flexural strength (N/mm <sup>2</sup> )	
3 hours	9.5
24 hours	10.00
7 days	10.80
28 days	11.40
Workability*	15 minutes
Set time*	30 minutes
Density	2298kg/m <sup>3</sup>
Coverage	Approx 1 x 400mm x 400mm standard ironwork cover and frame @ 20mm, dependant on bed depth, brickwork and substrate
Yield	Bag and bottle: 8.5 litres, 118 bags/m <sup>3</sup> for the two component pack
Colour	light grey <i>As with all raw materials, colour variation may occur. This does not affect the consistency or characteristics of the product.</i>
Unit/packaging	18kg paper bag & 2.5 litre bottle (48 units per pallet)

\*Depending on temperatures – tests carried out at 20°C. Cool temperatures retard, warm temperatures accelerate product performance.

### Design Manual for Roads & Bridges – Volume 4, Section 2

Complies with Highways Agency Document CD354 (formerly HA104/09)

Chamber Tops & Gully Tops for Road Drainage and Services.

Which States:

The material should be non-shrink.

The materials should have a minimum workable life of 15 minutes.

The compressive strength should exceed 30N/mm<sup>2</sup> in 3 hours.

The tensile strength should exceed 5N/mm<sup>2</sup> in 3 hours.

### Contact Us

Instarmac® Group plc, Birch Coppice Business Park, Danny Morson Way, Dordon, Tamworth, Staffordshire, B78 1SE, United Kingdom

Tel: +44 (0) 1827 254400 Fax: +44 (0) 1827 285386

Email: [email@instarmac.co.uk](mailto:email@instarmac.co.uk) Order: [orders@instarmac.co.uk](mailto:orders@instarmac.co.uk) Website: [instarmac.co.uk](http://instarmac.co.uk)

Vers7.07.21 Uncontrolled if printed. For the most up-to-date version of this datasheet, please refer to this product's profile on our website which can be found at [www.ultracrete.co.uk](http://www.ultracrete.co.uk)