

## EnviroCrete Polyester Bedding Mortar

High Performance Bedding Mortar

### Description

An extremely versatile two pack polyester bedding mortar which exhibits a very fast set and rapid strength gain surpassing the average strength of concrete within 1 hour. Ideal for the bedding of manhole frames, bollards and other street furniture, where the rapid set allows the minimum of disruption. In addition Envirocrete Bedding Mortar has been designed to comply with strength requirements of Highway Works Specification HA104/09. As well as requirements of EN1504 Part 3 Class R3.

### Advantages


- Quick curing, high early compressive, flexural and tensile strength.
- Economic-quantities mixed as needed, therefore very little wastage.
- Supplied in polythene buckets, which act as mixing vessels.
- Excellent chemical and water resistance.
- Simple to use-no critical mixing ratios.
- Will cure down to 0°C.
- No primer required.
- Meets all strength requirements of Highway Works Specification HA104/09.

### Applications

- Fixing or bedding of copings and kerbs, etc.
- Bedding and raising of manhole frames.
- Bedding street furniture.

### Technical Information

Yield	11.2 litres / 25kg pack
Typical Density	2240 kg/m <sup>3</sup>
Working Time	30 minutes, at 7°C 10 minutes, at 23°C

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EN 1504—3 Concrete repair product for structural repair PC Mortar (Polymer Mortar)	
Compressive strength	Class R3 (>25 MPa)
Chloride ion content	≤0.05%
Adhesive bond strength	>1.5 MPa
Adhesion after freeze/thaw (50 cycles with salt)	>1.5 MPa
Elastic modulus	>15GPa
Dangerous substrates	Complies with 5.4

	Strength gain at 7°C	Strength gain at 20°C
1 Hour	15 MPa	45MPa
2 Hours	50 MPa	60 MPa
4 Hours	60 MPa	70 MPa
24 Hours	70 MPa	80 MPa
3 Days	75 MPa	90 MPa
7 Days	80 MPa	95 MPa

## Technical Properties of Eviocrete Bedding Mortar

Properties	Standard	Performance Requirement	Declared Value
Appearance			Resinous Mortar
Chloride-ion content	EN1015-17	≤0.05%	<0.05%
Aggregate size			Max. 2mm
Layer thickness - Minimum			5mm
Maximum			40mm
Working time @ 23°C			10 Minutes
Hardening Time @ 23C			20 Minutes
Temperature for application			0°C to 35°C
Compressive Strength @ 23°C	EN 12190	≥ 30 MPa	45 MPa @ 1 Hour 60 MPa @ 2 Hours 65 MPa @ 3 Hours 70 MPa @ 4 Hours 80 MPa @ 24 Hours 90 MPa @ 3 Days 95 MPa @ 7 Days
Compressive Strength @ 7oC	EN 12190		15 MPa @ 1 Hour 50 MPa @ 2 Hours 60 MPa @ 4 Hours 70 MPa @ 24 Hours 75 MPa @ 3 Days 80 MPa @ 7 Days
Tensile Strength	BS6319-7	≥ 5.0 MPa @ 3 Hour	9.0 MPa @ 3 Hour
Flexural Strength	BS6319-3		23 MPa
Flexural Elastic Modulus	BS6319-3		> 15 GPa
Elastic modulus	EN13412	≥ 15 GPa	> 15 GPa
Adhesion - concrete	EN1542	≥ 1.5 MPa	> 2.0 MPa
Adhesion after freeze/thaw (50 cycles with salt)	EN13687-1	≥ 1.5 MPa	> 2.0 MPa
Adhesion after thunder showers (30 cycles)	EN13687-2	≥ 1.5 MPa	> 2.0 MPa
Adhesion after dry cycling (30 cycles)	EN13687-4	≥ 1.5 MPa	> 2.0 MPa
Skid Resistance	EN13036-4		Class 1
Carbonation resistance	EN13295	dk ≤ ref. concrete	dk < ref. concrete
Capillary absorption	EN13057	≤ 0.5 kg/m <sup>2</sup> /h-0.5	≤ 0.5 kg/m <sup>2</sup> /h-0.5
Cracking tendency	Coutinho ring test		No cracking after 180 days

Technical data shown are statistical results and do not correspond to guaranteed minima.  
Tolerances are those described in appropriate performance standards.

## Reduced Working Time

Sachets of accelerating powder can be added to each half pack to accelerate the setting time.

No. of sachets per	Working time @	Working time @
12.5kg	20°C	7°C
1 sachet	8 minutes	20 minutes
2 sachets	-	12 minutes
3 sachets	-	8 minutes

## Surface Preparation

All surfaces should be clean, dry free from oil, grease, chemical contamination and all loose materials. Oil and grease should be removed. Concrete surfaces should be free from laitance, this should be removed by scarifying. On smooth surfaces a stronger bond will result if the substrate is roughened to produce a mechanical key.

## Mixing

Remove the can of Enviocrete Resin and the bags of hardener/aggregate contained within the plastic mixing bucket. Pour the required amount of resin into the mixing bucket and add the hardener/ aggregate slowly with continuous mixing until a trowelable consistency is achieved. Large quantities should be mixed in a suitable forced action or pan type paddle mixer.

Care should be taken not to mix more than can be used within the setting time of the material.

A smooth surface can be obtained by keeping the float face clean by wiping with a cloth dampened with Nuwash.

It is recommended that the maximum thickness of 40mm per application should not be exceeded. In addition where multiple applications are required a rough surface between layers should be made to provide a mechanical key.

Clean all tools and equipment after use with Nuwash.

## Packaging

Enviocrete Bedding Mortar is available in 12.5kg & 25kg units.

## Storage

Enviocrete Resin is flammable (flash point is 31°C), due precautions should be made when handling and storing this material. Shelf life is 6 months when stored correctly in sealed containers, however at higher temperatures this period will be reduced. Store away from food stuffs and out of the reach of children.

## Health and Safety

Confined areas should be well ventilated and do not smoke or allow naked flames during use. Enviocrete Bedding Mortar like similar products is capable of irritating unprotected sensitive skin. The use of gloves and suitable barrier cream is therefore recommended.

## Limitations

For use below 5°C consult our technical department.

## Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical representatives are available to provide further information and arrange demonstrations.

