

Confil Bedding Mortar

Polyester 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 Confil Bedding Mortar has been designed to comply with all strength requirements of highways standard HA104, as well as complying with the requirements of EN 1504 Part 3 Class R3.

Advantages

- Rapid curing, high early compressive, flexural & tensile strengths
- Packaged for economical use, therefore very little wastage
- Supplied in polythene tubs, which act as mixing vessels
- Excellent chemical & water resistance
- Simple to use
- Will cure down to 0°C
- No primer required
- Available in two grades, Standard & Rapid Set
- Meets requirements of highway specification HA104

Applications

- Fixing or bedding of copings & kerbs, etc
- Bedding & raising of manhole frames
- Bedding street furniture
- Bedding of airport runway lights and cable ducts
- Patch repair to chiller room floors

Technical information

Yield	11.2 litres per 25 kg pack
Typical density	2240 kg/m ³
Working time	30 minutes @ 7°C 10 minutes @ 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	≥1.5 MPa
Elastic modulus	≥15 GPa
Dangerous substances	Complies with 5.4

Compressive Strength Development

Time	Strength gain at 7°C	Strength gain at 20°C
1 hour	15 MPa	45 MPa
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 Datasheet

Technical properties of Confil Bedding Mortar



Properties	Standard	Performance Requirement	Declared Value
Appearance			Resinous Mortar
Chloride-ion content	EN 1015-17	≤0.05 %	<0.05 %
Aggregate size			Max. 2 mm
Layer thickness - minimum maximum			5 mm 50 mm
Working time (@ 23°C)			10 minutes
Hardening time (@ 23°C)			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 @ 7°C	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	BS 6319-7	≥5.0 MPa @ 3 hour	9.0 MPa @ 3 hours 12.0 MPa @ 7 days
Flexural strength	BS 6319-3		23 MPa
Flexural elastic modulus	BS 6319-3		>15 GPa
Elastic modulus	EN 13412	≥15 GPa	>15 GPa
Adhesion - concrete	EN 1542	≥1.5 MPa	>2.0 MPa
Adhesion after freeze/thaw	EN 13687-1	≥1.5 MPa	>2.0 MPa
Adhesion after thunder showers	EN 13687-2	≥1.5 MPa	>2.0 MPa
Adhesion after dry cycling	EN 13687-4	≥1.5 MPa	>2.0 MPa
Skid resistance	EN 13036-4		Class 1
Carbonation resistance	EN 13295	$d_k \leq \text{ref. concrete}$	$d_k < \text{ref. concrete}$
Capillary absorption	EN 13057	≤0.5 kg/m ² .h ^{0.5}	≤0.5 kg/m ² .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.

All testing was conducted at 23°C under laboratory conditions, unless otherwise stated.

Please contact Nufins technical department for performance details of the summer grade version.

Surface Preparation

Substrates must be clean, dry and sound, hence all grease, oil, dust, loose material and laitance must be removed by broom, vacuum or by scarifying.

When used as a patch repair mortar, the perimeter edges of the defect must be recessed to 10mm minimum. On smooth surfaces a stronger bond will result if the substrate is roughened to produce a mechanical key.

Mixing

Care should be taken not to mix more material than can be used within the setting time of the material. In low temperatures it is important to precondition the material in a warm environment and if possible, to warm the substrate prior to application.

Remove both tins of Confil resin and both bags of the sand/catalyst from the outer tub; the tub may be used for mixing. Mix in the ratio 1 tin of resin to 1 bag of sand/catalyst. Always add sand/catalyst to the liquid.

Half-pack mixing: pour all of the resin from 1 tin into the mixing vessel and whilst continuously mixing with a high-torque slow speed drill and appropriate 80mm paddle, gradually add the entire contents from 1 bag of sand/catalyst. Mix for 2-3 minutes until a homogenous trowellable mortar is achieved.

Full-pack mixing: pour both tins of resin into the mixer drum of a suitable forced action or pan type paddle mixer and whilst the drum is rotating, gradually add the entire contents of both bags of sand/catalyst. Mix for 2-3 minutes until a homogenous trowellable mortar is achieved. Use immediately.

Application Instructions

Work quickly to place mortar at the desired thickness and position the component. Confil Bedding Mortar should be pressed firmly into place to ensure good adhesion and full compaction, using a wood or plastic float. Finishing and closing the surface is assisted by wiping the float face clean with a rag dampened with Nuwash.

Where a multiple application build up is required, intermediate surfaces should be heavily scored and roughened, thus providing a mechanical key. Subsequent application is made once the previous application has hardened and sufficiently cooled.

Clean all tools and equipment after use with Nuwash.

Packaging

Confil Bedding Mortar is available in 25kg units (yield approximately 11.2 litres).

Storage

Confil Resin is flammable (flash point is 31°C), due precautions should be made when handling and storing this material.

The shelf life is 6 months when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost.

Health and Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the very latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

Limitations

For use below 5°C consult Nufins technical department.

Disclaimer

The information contained herein is to the best of our knowledge true and accurate and is given in good faith but without warranty. The user will be deemed to have satisfied themselves independently as to the suitability of our products for their own particular purpose. In no event shall Nufins be liable for consequential or incidental damages.

Users must always refer to the most recent issue of the Technical Datasheets, copies of which will be supplied on request.

Technical Support

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