

Confil Mortar

General Purpose Polyester Mortar



Nufins

Description

An extremely versatile two pack general purpose polyester mortar which exhibits a very fast set and rapid strength gain surpassing the average strength of concrete within 1 hour. Ideal for small general repairs where the rapid set allows the minimum of disruption. Confil Mortar is designed to comply with the 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.
- Less than 1% shrinkage.
- Simple to use - no critical mixing ratios.
- Will cure down to 0°C.
- No primer required.
- Available in two grades standard and rapid set.
- Complies with EN1504 Part 3 Class R3.

Applications

- Repairs to damaged precast units.
- Repairs to spalled concrete roads, runways, etc.
- Fixing or bedding of copings and kerbs etc.
- Bedding and raising of manhole frames.
- Jointing between precast units.
- Repairs to stair treads and arrises.

Technical information

Typical Compressive Strength Gain.

	Strength gain at 7°C	Strength gain at 20°C
2 Hour	-	80 MPa
4 Hours	80 MPa	85 MPa
24 Hours	95 MPa	98 MPa
3 Days	98 MPa	102 MPa
7 Days	100 MPa	105 MPa



0086

Nufins, Kingston House,
3 Walton Road, Pattinson North, District 15,
Washington, Tyne & Wear. NE38 8QA
13
0086-CPD-594215

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

Typical Usable Life

Temperature	Rapid Grade Fast-set	Standard Grade Slow-set
10°C	30 Minutes	50 Minutes
15°C	22 Minutes	40 Minutes
20°C	18 Minutes	30 Minutes

Technical properties of Confil Mortar.

Properties	Standard	Performance Requirement	Declared Value
Appearance			Pale Grey Resinous Mortar
Chloride-ion content	EN1015-17	$\leq 0.05\%$	$< 0.05\%$
Aggregate size			Max. 1mm
Layer thickness - Minimum Maximum			5mm 15mm
Working time (@ 23°C)			18-30 minutes
Hardening Time (@ 23°C)			20-40 Minutes
Density			2120 kg/m ³
Temperature for application			0°C to 35°C*
Compressive Strength @ 23°C	EN 12190	≥ 25 MPa	80 MPa @ 2 Hours 85 MPa @ 4 Hours 98 MPa @ 24 Hours 102 MPa @ 3 Days 105 MPa @ 7 Days
Compressive Strength @ 7°C	EN 12190		- MPa @ 2 Hours 80 MPa @ 4 Hours 95 MPa @ 24 Hours 98 MPa @ 3 Days 100 MPa @ 7 Days
Tensile Strength	BS6319-7		≥ 12.0 MPa
Flexural Strength	BS6319-3		≥ 20 MPa
Modulus of Elasticity, in Flexure	BS6319-3		≥ 15 GPa
Modulus of Elasticity, in Compression	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	$d_k \leq \text{ref. concrete}$	$d_k < \text{ref. concrete}$
Capillary absorption	EN13057	$\leq 0.5 \text{ kg/m}^2/\text{h}^{-0.5}$	$\leq 0.5 \text{ kg/m}^2/\text{h}^{-0.5}$
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.

*- Consult with the technical department when being used at below 5°C.

Once Confil Mortar has fully cured no shrinkage will occur.

1 N/mm² = 1 MPa

1 kN/mm² = 1 GPa



Kingston House, 3 Walton Road, Pattinson North, Washington, Tyne & Wear, NE38 8QA, United Kingdom

T: +44(0) 191 416 8360

F: +44(0) 191 415 5966

W: www.nufins.com

E: info@usluk.com

This information and/or specification contained herein or in our literature or given by Nufins, its employees, distributors, agents or representatives with regard to its product or their use or application are given in good faith, but no liability is accepted for any loss or damage (including direct or consequential loss or loss of profits) from the use of products because Nufins has no control over how its products are used and applied.

Surface Preparation

All surfaces should be clean, dry free from oil, grease, chemical contamination and all loose materials. Oil and grease should be removed using Desolve. Concrete surfaces should be free from laitance, this should be removed by scarifying or etching with Chemclean. After using Chemclean, and after the reaction has ceased, wash the surface thoroughly with water and allow to dry. On smooth surfaces a stronger bond will result if the substrate is roughened to produce a mechanical key.

Mixing

Remove the can of Confil 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.

Application Instructions

If formwork is used a suitable silicone or wax based release agent should be used to avoid the sticking of the mortar. The mixed Confil mortar should be trowelled firmly into place to ensure good adhesion, on dense substrates the mix should be made more resin rich to ensure good adhesion. A smooth surface can be obtained by keeping the face of the float clean by wiping with a cloth dampened with Nuwash.

It is recommended that the maximum thickness of 15mm 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

Confil Mortar is available in 5 kg and 25 kg units, (2.36 litre and 11.78 litre packs respectively).

Storage

Confil 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. Do not smoke or allow naked flames during use. Confil Mortar, like similar products is capable of irritating unprotected sensitive skin, therefore the use of gloves and suitable barrier cream is 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. Our technical representatives are available to provide further information and arrange demonstrations.



Kingston House, 3 Walton Road, Pattinson North, Washington, Tyne & Wear, NE38 8QA, United Kingdom

T: +44(0) 191 416 8360

F: +44(0) 191 415 5966

W: www.nufins.com

E: info@usluk.com

This information and/or specification contained herein or in our literature or given by Nufins, its employees, distributors, agents or representatives with regard to its product or their use or application are given in good faith, but no liability is accepted for any loss or damage (including direct or consequential loss or loss of profits) from the use of products because Nufins has no control over how its products are used and applied.