



# 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.
- 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 10°C	Strength gain at 20°C
2 Hour	-	80 N/mm <sup>2</sup>
4 Hours	80 N/mm <sup>2</sup>	85 N/mm <sup>2</sup>
24 Hours	95 N/mm <sup>2</sup>	98 N/mm <sup>2</sup>
3 Days	98 N/mm <sup>2</sup>	102 N/mm <sup>2</sup>
7 Days	100 N/mm <sup>2</sup>	105 N/mm <sup>2</sup>

	Result	Test Standard
Yield	2.36 Litres per 5kg	
Typical Density	2120 kg/m <sup>3</sup>	
Compressive Strength	110 N/mm <sup>2</sup>	EN12190
Flexural Strength	27 N/mm <sup>2</sup>	BS6319 - 3
Tensile Strength	13 N/mm <sup>2</sup>	BS6319 - 7
Modulus of Elasticity in Compression	15 kN/mm <sup>2</sup>	EN13412
Tensile Bond Strength to Concrete	>2.0 N/mm <sup>2</sup>	EN1542
Shrinkage	Less than 1%	

Once Confil Mortar has fully cured no shrinkage will occur.

### 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

### 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.

## 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 <sup>3</sup>
Temperature for application			Between 0°C & +35°C*
Compressive Strength @ 23°C	EN 12190	$\geq 25 \text{ N/mm}^2$	80 N/mm <sup>2</sup> @ 2 Hours 85 N/mm <sup>2</sup> @ 4 Hours 98 N/mm <sup>2</sup> @ 24 Hours 102 N/mm <sup>2</sup> @ 3 Days 105 N/mm <sup>2</sup> @ 7 Days
Compressive Strength @ 7°C	EN 12190		- N/mm <sup>2</sup> @ 2 Hours 80 N/mm <sup>2</sup> @ 4 Hours 95 N/mm <sup>2</sup> @ 24 Hours 98 N/mm <sup>2</sup> @ 3 Days 100 N/mm <sup>2</sup> @ 7 Days
Tensile Strength	BS6319-7		$\geq 12.0 \text{ N/mm}^2$
Flexural Strength	BS6319-3		$\geq 20 \text{ N/mm}^2$
Modulus of Elasticity, in Flexure	BS6319-3		$\geq 20 \text{ kN/mm}^2$
Modulus of Elasticity, in Compression	EN13412	$\geq 15 \text{ kN/mm}^2$	15 kN/mm <sup>2</sup>
Adhesion - concrete	EN1542	$\geq 1.5 \text{ N/mm}^2$	$\geq 2.0 \text{ N/mm}^2$
Adhesion after freeze/thaw (50 cycles with salt)	EN13687-1	$\geq 1.5 \text{ N/mm}^2$	$\geq 2.0 \text{ N/mm}^2$
Adhesion after thunder showers (30 cycles)	EN13687-2	$\geq 1.5 \text{ N/mm}^2$	$\geq 2.0 \text{ N/mm}^2$
Adhesion after dry cycling (30 cycles)	EN13687-4	$\geq 1.5 \text{ N/mm}^2$	$\geq 2.0 \text{ N/mm}^2$
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.



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### 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.



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