

Nupatch Bedding Mortar

Rapid Setting Mortar

Description


A pre-packed shrinkage compensated cementitious bedding mortar characterised by its rapid strength gain which enables work to be carried out with the minimum of disruption. Ideally suited for the bedding and raising of manhole frames, fixing of street furniture and as a general purpose rapid setting repair mortar. Nupatch Bedding Mortar has been designed to comply with the requirements of EN1504 Part 3 Class R4.

Advantages

- Rapid setting characteristics
- Low water/cement ratio
- Shrinkage compensated
- Excellent adhesion to dense concrete and steel
- Simple to use, only requires the addition of clean water
- Excellent workability and finishing properties
- May be used down to 0°C
- Resistant to freeze/thaw cycle
- Free from chloride additives
- Low chromate (Cr (VI) <2ppm)
- Manufactured under BSI QA Scheme, ISO 9001, EN29001
- Complies with HD27/04 Chapter 3 part 11

Applications

- Bedding and raising of manhole frames
- Fixing of street furniture
- Rapid setting of posts, railings, lamp standards, etc
- High strength repair mortar
- Bedding for copings

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|---|--------------------|
|  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 CC Mortar (based on hydraulic cement) | |
| Compressive strength | Class R4 (>45 MPa) |
| Chloride ion content | ≤0.05 % |
| Adhesive bond strength | >2.0 MPa |
| Adhesion after freeze/thaw | >2.0 MPa |
| Elastic modulus | >20 GPa |
| Reaction to fire | Class A1 |
| Dangerous substances | Complies with 5.4 |

Technical Information

| | |
|------------------------|---------------------------------|
| Water Addition | 2.2-2.85 Litres per 25kg pack |
| Density | 2350 kg/m ³ |
| Yield | Approx. 12 Litres per 25kg pack |
| Maximum Aggregate Size | 4mm |

| Water Addition | Usable life | Compressive Strength, MPa | | | | | |
|------------------------|-------------|---------------------------|------|------|-------|-------|--------|
| | | 1 Hr | 2 Hr | 4 Hr | 1 Day | 7 Day | 28 Day |
| 2.2 Litre (Stiff Mtr) | 10 Mins | 15 | 32 | 41 | 51 | 73 | 84 |
| 2.5 Litre (Mobile Mtr) | 12 Mins | 13 | 24 | 32 | 41 | 61 | 72 |
| 2.85 Litre (Pourable) | 15 Mins | - | 17 | 23 | 32 | 55 | 68 |



Technical properties of Nupatch Bedding Mortar.

| Properties | Standard | Performance Requirement | Declared Value |
|---|--------------------|---|--|
| Appearance | | | Grey Powder |
| Mixing water | | | 2.2-2.85 Litres per 25kg |
| Chloride-ion content | EN1015-17 | ≤ 0.05% | ≤ 0.05% |
| Maximum aggregate size | | | 4mm |
| Water/cement ratio | | | 0.36 @ 2.85 Litres per 25kg |
| Cement content | | | >600kg/m ³ |
| Layer minimum thickness | | | 10mm |
| Density | | | Approx. 2350 kg/m ³ |
| Working time | | | 10-15 Minutes |
| Temperature for application | | | 3°C to 35°C |
| Compressive Strength 2.5 Litres per Pack @20°C | EN 12190 | ≥ 45 MPa | 13 MPa @ 1 Hour 24 MPa @ 2 Hour 32 MPa @ 4 Hour 41 MPa @ 24 Hour 61 MPa @ 7 Day 72 MPa @ 28 Day |
| Tensile Strength | EN12390-6 | | >3.0 MPa |
| Flexural Strength | BS6319-3 | | 10 MPa |
| Modulus of Elasticity, In Flexure | BS6319-3 | | >20 GPa |
| Modulus of Elasticity, In Compression | EN13412 | ≥ 20 GPa | > 20 GPa |
| Adhesion - Concrete | EN1542 | ≥ 2.0 MPa | > 2.0 MPa |
| Adhesion after freeze/thaw | EN13687-1 | ≥ 2.0 MPa | > 2.0 MPa |
| Adhesion after thunder shower | EN13687-2 | ≥ 2.0 MPa | > 2.0 MPa |
| Adhesion after dry cycling | EN13687-4 | ≥ 2.0 MPa | > 2.0 MPa |
| Skid Resistance | EN13036-4 | | Class 1 |
| Carbonation resistance | EN13295 | $d_k \leq \text{ref. concrete}$ | $d_k \leq \text{ref. concrete}$ |
| Capillary absorption | EN13057 | $\leq 0.5 \text{ kg/m}^2/\text{Hr}^{0.5}$ | $\leq 0.5 \text{ kg/m}^2/\text{Hr}^{0.5}$ |
| 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.

1 N/mm² = 1 MPa

1 kN/mm² = 1 GPa

Surface Preparation

The substrate must be clean and sound, hence all grease, oil, dust and laitance must be removed by scarifying. The edges of the repair must be recessed at least 10mm. Thoroughly saturate surface but ensure no free water remains.

Mixing & Placement

Nupatch Bedding Mortar should be mixed using a forced action mixer. The mixing drum should be pre-wetted and any remaining water drained away. Add the water to the mixing drum and gradually add all of the powder component whilst the drum is turning. Continue mixing for two minutes to produce a hydrated and cohesive mortar which is ready for immediate use.

Place the mixed mortar to the desired thickness, allowing for compaction and bed the component. Minimum bed thickness 10mm. Finish as required and clean all equipment immediately with water.

Packaging

Nupatch Bedding Mortar is available in 25kg units.

Storage

Shelf life of Nupatch Bedding Mortar is 6 months when stored in cool dry conditions and in sealed packaging.

Health & 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 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

If applying at 3°C or below please contact Nufins technical department for advice.

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.