

Technical Datasheet

Hi-Spec Paving Jointing Mortar



High Strength Hydraulic Bonding Jointing Mortar

Description


A pourable cementitious joint mortar typically used for filling joints between concrete, stone and granite elements. The system is suitable for use on pedestrian or vehicular trafficked areas and complies with BS7533. Hi-Spec Paving Jointing Mortar is based on non-reactive aggregates and low alkaline, shrinkage compensated Portland Cements with selected admixtures. Hi-Spec Paving Jointing Mortar has been formulated to comply with the requirements of EN1504: Part 3 Class R4 .

Advantages

- Single pack system
- Non-shrink
- Very high early compressive and flexural strengths
- Pour applied
- Excellent bond strength to a variety of materials
- Suitable for pedestrian and carriageway surfacing
- Tolerant to freeze/thaw cycles
- Excellent flowability and placement characteristics
- Also available in charcoal colour

Technical Information

Water Addition	3.5 to 4.0 litres per 25 kg bag
Typical Density	2150 - 2300kg/m ³
Vehicular Trafficking Times (guidance only)	Summer >15°C 1-2 Days Winter >5°C 3-5 Days
Cure Before Stress	24 Hours
Joint width minimum/maximum	6mm-100mm
Yield	13 Litres (0.013m ³)

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

Priming

It is not necessary to prime the sides of elements. However, porous elements should be dampened down with clean water immediately prior to joint filling. Ensure the sides of elements are free from contamination.



Technical properties of Hi-Spec Paving Jointing Mortar.

Properties	Standard	Performance Requirement	Declared Value
Appearance			Grey Powder
Chloride-ion content	EN1015-17	≤0.05%	<0.05%
Aggregate size			Max. 2mm
Joint width minimum/maximum			6mm-100mm
Working time			45-60 Minutes
Hardening time			4-18 Hours
Density			2150-2300 Kg/m ³
Temperature for application			5°C to 35°C
Compressive strength @ 20°C	EN 12190	≥ 45 MPa	30 MPa @ 24 Hours >50 MPa @ 7 Days >60 MPa @ 28 Days
Modulus of elasticity In compression	EN13412	≥ 20 GPa	20 GPa
Flexural strength	BS6319-3		7.0 MPa
Modulus of elasticity In Flexure	BS6319-3		20 GPa
Tensile strength	BS6319-7		4.0 MPa
Adhesion - concrete	EN1542	≥ 2.0 MPa	≥ 3.0 MPa
Adhesion after freeze/thaw (50 cycles with salt)	EN13687-1	≥ 2.0 MPa	≥ 2.0 MPa
Adhesion after thunder showers (30 cycles)	EN13687-2	≥ 2.0 MPa	≥ 2.0 MPa
Adhesion after dry cycling (30 cycles)	EN13687-4	≥ 2.0 MPa	≥ 2.0 MPa
Skid resistance	EN13036-4		Class 1
Carbonation resistance	EN13295	$d_k \leq \text{ref. concrete}$	Passes
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
Heat Resistance			Tolerates Steam Cleaning

Note: Strengths are based on 4.0 litres water addition.

Technical data shown are statistical results and do not correspond to guaranteed minima.

Tolerances are those described in appropriate performance standards.

Mixing

Mixing may be carried out in a forced action or pan type paddle mixer to ensure thorough mixing without “balling”. The part mixing of bags of material is not recommended.

The contents of each bag of Hi-Spec Paving Jointing Mortar requires mixing with clean water only. The mixer drum is to be clean and free from the remains of previous mixes. Wet the inside of mixer drum and drain off excess water.

Measure out the appropriate quantity of water into a suitable container and add 2/3 of the mixing water into the drum. With the mixer rotating add the full contents of the bag and allow to mix for one minute. Add all or part of the remainder of the water and allow to mix for up to a further 2 minutes depending on the type of mixer used. Pour mix into a container and allow to de-air for up to 2 minutes.

Application Instructions

Joints should be filled within 24 hours of laying the setts to minimise the risk of dirt contaminating the joints. Using a suitable watering can or other type of applicator with appropriate nozzle, pour directly into joints.

For flow applications use a squeegee to move material into joints. Care must be taken to remove material from set surfaces as soon as possible before hardening.

Surfaces may be cleaned with a mechanical belt cleaner or alternatively leave jointing mortar to harden and remove later by vacuum grit blasting. After use clean all tools and equipment with clean water

Low Temperature Working

Joint filling should not take place in temperatures below 5°C unless steps have been taken to protect areas in these conditions.

Packaging

Hi-Spec Paving Jointing Mortar is supplied in 25kg polythene lined bags. Yield is 13 litres (0.013m³) per bag.

Storage

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

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

Excessive water additions will reduce strengths and can cause segregation within the mix which may limit the flow.

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.