

DATA Sheet



MONOMIX HD

USES

MONOMIX HD is a high strength, shrinkage compensated mortar with good abrasion resistance for the structural repair, rendering and profiling of both vertical and horizontal surfaces including trafficked areas.

ADVANTAGES

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| INNOVATIVE: | Incorporates the latest proven cement chemistry, microsilica, fibre and styrene acrylic copolymer technology. |
| EASE OF USE: | Materials are pre-packaged and only require mixing with clean water on site to give an easily trowellable mortar with a maximum application thickness of 80mm in both vertical and horizontal situations. |
| SHRINKAGE COMPENSATED: | Enables high bond strength, superior to tensile strength of concrete, to be maintained and ensures monolithic performance of the repair. |
| LOW PERMEABILITY: | Dense matrix provides excellent protection from the ingress of acid gases, moisture and chlorides. |
| FIBRE REINFORCED | Improved tensile strength and abrasion resistance. Excellent low sag properties |
| COMPLIANCE: | Contains a styrene acrylic copolymer and fully complies with the Department of Transport Standard BD 27/86 for the repair of Highway Structures. |
| COST EFFECTIVE: | High performance, polymer modified, fibre reinforced cementitious mortar requiring no inter-layer priming. |
| OVERCOATING: | Easily overcoated with specialist membranes in the Flexcrete range to provide further protection and aesthetic quality. |

PRODUCT DESCRIPTION

MONOMIX HD is a single component cementitious mortar which incorporates the most advanced cement chemistry, microsilica, fibre and styrene acrylic copolymer technology. This results in a rapid hardening, normal density, high strength mortar with enhanced polymer properties. The thixotropic nature of the product enables easy high build trowel application for the structural repair of voids and the rendering and re-profiling of both vertical and horizontal surfaces. The product is supplied as a single component system ready for on-site mixing and use, requiring only the addition of clean water.

TECHNICAL DATA

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| Mixed Colour: | Concrete Grey. |
| Mixed Density: | 2100kg/m ³ . |
| Minimum Application Thickness: | 5mm. |
| Maximum Application Thickness: | 80mm per layer. |
| Minimum Application Temperature: | 5°C. |
| Maximum Application Temperature: | 40°C. |
| Working Life: | Approx. 60 minutes at 20°C and 30 minutes at 40°C. |

MECHANICAL CHARACTERISTICS (TYPICAL)

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|---|-------------------------|
| Compressive Strength: BS 4551 Tested at 20°C: | |
| 1 day | 33.0N/mm ² . |
| 7 days | 44.5N/mm ² . |
| 28 days | 56.5N/mm ² . |
| Flexural Strength: BS 4551 Tested at 20°C and 90% R.H. | |
| 7 days | 7.4N/mm ² . |
| 28 days | 8.6N/mm ² . |
| Bond Strength: Pull-Off Test. | |
| 28 days | 3.45N/mm ² . |

APPLICATION DATA PREPARATION

The areas to be repaired must be free from all unsound material, i.e. dust, oil, grease, corrosion by-products, organic growth. All loose materials and surface laitance must be removed. For large areas grit/water jetting or mechanical scabbling is recommended. For smaller areas, needle gunning or bush hammering is effective. The strength of the concrete sub-base should be a minimum of 20N/mm². The prepared substrate should be thoroughly soaked with clean water until uniformly saturated without any standing water.

PRIMING

The pre-dampened concrete surface should, if highly porous, be primed with the **BONDING BRIDGE 842**. Two coats of **STEEL REINFORCEMENT PROTECTOR 841** should be applied to the prepared steel by brush.

For further information please refer to relevant data sheets.

MIXING

MONOMIX HD should be mechanically mixed using a forced action pan mixer or in a clean drum using a drill and paddle. A normal concrete mixer is **NOT** suitable.

For normal applications, use from 2.3-2.7 litres of clean water per 25kg bag depending upon the desired consistency. Typically, for high build applications, use 2.5 litres of clean water per sack which gives a water:powder ratio of 0.10. Normal mixing time depends on the type of mixer used, 2-3 minutes is average. Mix so as to entrain as little air as possible. Use without delay.

PLACING

MONOMIX HD can be applied by float or trowel as a render, resulting in application thicknesses of 80mm, even in soffit situations. If necessary, support with shuttering to allow for compaction if working to reveals, etc. The application thickness achievable is dependent upon the substrate and care must be taken to ensure that an initial 5-10mm thickness of mortar is well placed and adhered before building up to larger depths.

For repairs which require multi-layer applications, it is important to ensure that previous layers are well keyed and stable but not fully set prior to the application of subsequent layers. No inter-layer priming is required. Final profiling of a high quality is easily achieved with a steel float.

CURING AND OVERCOATING

Normal concreting procedures should be strictly adhered to. It is important that the surface of the mortar is protected from strong sunlight and drying winds with **FLEXCRETE CURING MEMBRANE**, polythene sheeting, damp hessian or similar. If overcoating with a specialist membrane in the Flexcrete range allow a minimum of 72 hours curing of the **MONOMIX HD** and ensure the moisture content of the surface is less than 20%.

CLEANING

All tools should be cleaned with water immediately after use.

SHELF LIFE

12 months in dry, frost free conditions with unopened sacks at 20°C.

PACKAGING AND COVERAGE

Pack Size: 25kg.
Yield: 13.1 litres per 25kg pack.
Coverage: 2.1kg/mm/m², i.e. 1m² at 10mm thickness = 21kg.

SAFETY DATA

Safety Data Sheet available on request.

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