

HydroCoat Monoflex Adhesive

Adhesive for HydroCoat Monoflex Joint Sealing

Revision: 2.2 - 12TH January 2023
Code: HS-MFA

INTRODUCTION

[Newton HydroCoat Monoflex Adhesive](#) is a two-component, versatile and solvent-free epoxy adhesive which is used as the bonding agent for sealing construction joints, movement joints and cracks in below-ground and water-retaining structures with the [HydroCoat Monoflex](#) joint sealing system.

HydroCoat Monoflex Adhesive is easy to mix and apply on site, requires no primer, and exhibits excellent bonding characteristics with a wide range of common building materials, even under damp conditions.

KEY BENEFITS

- No primer required
- Excellent adhesion to most building materials
- Bonds to damp substrates
- Low odour
- Resistant to water, weathering and a wide range of chemicals
- Excellent chemical properties and cohesive strength
- Colour-coded components to ensure correct and easy mixing

TYPICAL APPLICATIONS

As the bonding agent for HydroCoat Monoflex, for the sealing of construction joints, movement joints, pipe penetrations, and cracks in all types of below-ground and water-retaining structures, such as:

- Basements
- Tunnels, culverts and hydroelectric plants
- Swimming pools
- Sewage and water treatment plants

PURCHASE CODES

| Product | Purchase Code |
|--------------------------------------|---------------|
| • HydroCoat Monoflex Adhesive - 5 kg | HS-MFA |
| • HydroCoat Monoflex - 100mm | HS-MF-100 |
| • HydroCoat Monoflex - 200mm | HS-MF-200 |

PACKAGING

Newton HydroCoat Monoflex Adhesive is supplied in two containers with a combined weight of 5 kg.

SPECIFICATION

Newton Waterproofing Systems work in partnership with RIBA NBS and [NBS Source](#), which integrates into project workflows, providing all product data from Newton's NBS BIM Objects, NBS Plus Clauses and RIBA Product Selector into one single source of product information.

NBS Source also hosts a large selection of Newton [case studies](#), as well as product [literature and certifications](#). A wide range of drawings are available [on our website](#).

TRAINING AND COMPETENCY OF THE USER

HydroCoat Monoflex Adhesive should be installed by those with an understanding of the requirement to waterproof retained structures and the knowledge and training to use the product as part of a coordinated approach to the waterproofing of the structure, which in many cases will require further products so as to achieve the required habitable grade as defined by BS 8102:2022.

[Newton Specialist Contractors \(NSBCs\)](#) are trained by Newton Waterproofing Systems in the correct specification and installation of Newton waterproofing products and will provide the client with a meaningful insurance backed guarantee for the waterproofing.

SPECIALIST TOOLS REQUIRED

No specialist tools needed.

Application of HydroCoat Monoflex Adhesive is best achieved using a spatula, trowel, serrated trowel or a stiff bristled brush, depending on the area to be treated.

SURFACE PREPARATION

- Concrete substrates should be sound, clean and free from dust, dirt, grease, oils, laitance and other contaminants. A roughened or profiled surface will ensure optimum adhesion
- Mild steel and other metallic substrates should be degreased, power wire brushed or grit blasted and vacuumed free of dust
- Other substrates should be sound, clean and free from dust, dirt, grease, oil and any oxidised surface layers

MIXING

The base component and curing agent component should be thoroughly mixed together using a stiff spatula or a slow speed drill with paddle attachment until a uniform grey mixture has been produced.

Newton Waterproofing supply the full range of [Collomix Mixing Equipment](#) that includes Hand Mixers, Stirrers, Mixing Stands, Buckets, Transport Carts and the Mixer Clean mixing bucket.

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TECHNICAL DATA

| Features | Result | Units | |
|--|-----------------------|-------------------|----------------|
| Form – Two components | Liquid epoxy adhesive | | |
| Colour | Light grey | | |
| Specific gravity | 1.5 | g/cm ³ | |
| Pack size - Two components | 5 | kg | |
| Shelf life | 12 | months | |
| Pot life @ 20°C | 50 | minutes | |
| Application temperature range | 3 to 30 | °C | |
| Curing time @ 20°C* | 10 to 12 | hours | |
| Cured Performance | Result | Units | Test Method |
| Compressive strength - 1 day at 20°C | 40 | MPa | |
| Compressive strength - 7 days at 20°C | 75 | MPa | |
| Tensile strength | 18 | MPa | |
| Moisture resistance - Increase at 28 days | < 0.4 | % | BS 6319 Part 8 |
| Lap shear strength - To grit blasted steel | 14 | MPa ² | |
| Shrinkage on curing | Negligible | | |
| Hold up | > 15 | mm | |

The above data, even if carried out according to regulated tests are indicative and they may change when specific site conditions vary. *At higher temperatures this period will be reduced, and at lower temperatures this period will be increased. Allow 7 days for the optimum mechanical properties and full chemical resistance to develop.

APPLICATION

- Use a brush or roller (depending on the substrate) to apply HydroCoat Monoflex Adhesive either side of the joint or crack to be sealed.
- Do not seal the central area immediately next to the joint/crack with adhesive - this section should not be adhered as it is important to allow the HydroCoat Monoflex to stretch with the substrate movement.
- Lay the HydroCoat Monoflex onto the adhesive and press it in, avoiding creases and wrinkles in the material as much as possible.
- Smooth the HydroCoat Monoflex and push the adhesive outwards from the middle of the joint, maintaining the dry 'stretch zone' in the middle
- For overlaps between the ends of adjoining lengths of HydroCoat Monoflex, ensure that there is a 10cm overlap and roughen the overlapping sections with sandpaper (80 grit).
- Use a hot air blower to weld the overlapping sections together, avoiding any air gaps or bubbles between the sections - press the overlaps together firmly
- If the HydroCoat Monoflex is not to be covered or protected, apply another layer of adhesive on top, leaving an area of 20 - 30mm directly above the joint/crack free from adhesive

COVERAGE

Dependent on application.

COLOUR

- Light grey

STORAGE

Store in dry conditions at temperatures between 10°C and 25°C. Protect from frost and freezing.

SHELF LIFE

HydroCoat Monoflex Adhesive has a shelf life of 12 months when stored in the original, unopened containers and in accordance with the manufacturers instructions.

LIMITATIONS



Do not apply to wet or uncured concrete surfaces. Do not apply at temperatures of 3°C or lower.

HEALTH AND SAFETY

Wear gloves and goggles. Wash off splashes immediately with soap and water. Use the product only as stated within this Data Sheet and refer to the the Safety Data Sheet for additional information.

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|---|---|---|--|
|  |  | <p>Newton Waterproofing Systems Newton House 17-20 Sovereign Way Tonbridge Kent TN9 1RH</p> | <p>HS-MFA EN 1504-3:2005 Structural and non-structural repair methods 3.1, 7.1 & 7.2</p> |
| <p>Essential characteristics to EN 1504-3:2005</p> | <p>Performance</p> | <p>Harmonised Technical Specification</p> | |
| <p>Compressive Strength</p> | <p>≥45MPa</p> | <p>EN 1504-3:2005</p> | |
| <p>Chloride Ion Content</p> | <p>≤0.05%</p> | | |
| <p>Adhesion Strength by Pull-off Test</p> | <p>>2MPa</p> | | |
| <p>Thermal Compatibility; Freeze Thaw</p> | <p>≥0.08MPa</p> | | |
| <p>Carbonation Resistance</p> | <p>Dk ≤ control concrete</p> | | |
| <p>Capillary Absorption (water permeability)</p> | <p>< 0.5kg/(m².h^{0.5})</p> | | |
| <p>Durability</p> | <p>Pass</p> | | |
| <p>Stiffening Time</p> | <p>Declared Value</p> | | |
| <p>Workability</p> | <p>Declared Value</p> | | |

Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our [website](#) for the latest versions.