HydroCoat LiquaBond

Acrylic Bonding Agent & Admixture



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PRODUCT OVERVIEW

<u>Newton HydroCoat LiquaBond</u> is a high-performance all-acrylic concrete primer and admixture developed for professional use. This two-in-one formulation enhances adhesion, flexibility, and long-term durability in a wide range of cementitious systems. As a primer, it promotes a strong bond strength between existing substrates and new concrete, screeds, or coatings. When used as an admixture, it improves workability, reduces shrinkage and cracking, and increases water resistance.

APPLICATION











COVERAGE







PACKAGING





As tack coat - 0.15 to 0.4 litres/m² As admixture - 1:10

KEY BENEFITS

- High bond strength Enhances adhesion between cementitious substrates and new screeds, toppings, or renders when used as a primer or admixture.
- Improved flexibility & impact resistance Forms a durable acrylic matrix within the mix, reducing brittleness and improving resistance to cracking and mechanical stress.
- Water resistance Reduces permeability and maintains integrity in damp or continuously wet environments, offering greater durability than standard PVA-based systems.
- Broad compatibility Bonds effectively to a wide range of construction materials including concrete, masonry, stone, and certain metals and plastics.
- Extended recoat window As a bonding agent, allows application of new toppings immediately or up to 7 days after priming.
- No water curing required Eliminates the need for post-application water curing, simplifying application and reducing labour.
- Alkali Stable Formulated to remain stable in the high pH environments typical of cementitious systems, ensuring long-term performance without breakdown.

SUITABLE SUBSTRATE

- Concrete
- Screed
- Mortar
- Render

• Stone

- Metals
- Cement-based waterproofing slurries

TYPICAL APPLICATIONS

- As a primer to increase the adhesion of <u>HydroCoat</u> <u>Tanking Slurry</u> as well as those from other manufacturers
- As a primer to increase the adhesion of render to cement/acrylic waterproofing membranes such as HydroCoat 103 2K and HydroCoat 107 Elastic 2K
- As an admixture and primer to increase the adhesion of render to nonporous surfaces
- Increases the bond of internal angle fillets
- As an admixture to sand/cement screeds to provide a fully bonded screed
- As an admixture to sand/cement repair mortar providing greater workability and adhesion
- Bonding agent between new and old concrete
- Bonding agent between render and brick and concrete walls
- Sealing walls and ceilings prior to painting in high humidity areas such as bathrooms and kitchens

METHOD OF APPLICATION

Roller or Brush.

COLOUR

Milky-white.

PACKAGING

5 litres.

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TECHNICAL DATA						
Features	Result					Units
Form	Liquid					
Colour	Milky V	Vhite (Drie				
Density/Specific Gravity	1.04					
Pack size	5					Litres
Shelf life	12					Months
Pot life @ 20°C & RH of 40%	N/A					
Coverage – As tack coat/primer – Concrete	0.15 to 0.40					I/m ²
Coverage – As admix	100					I/m³
Application method – Tack coat/primer	Brush or Roller					
Application temperature	+5 to +35					°C
Service temperature	As product used with or within					°C
Curing time - primer use	~15					Minutes
Toxicity	None					
VOC content	None					
Composition	All-acrylic polymer dispersion					
Odour	Mild					
рН	7.0-9.0					
Viscosity (25°C, sp4, rpm 20)	500-4000					ср
Mean particle size	0.1					μm
Minimum Film Formation Temperature	2 ± 1					°C
Solids content	56 ± 2		%			
Curing time - primer use	~15		Minutes			
Curing – Tack coat²	5°C	10°C	15°C	20°C	25°C	Units
Ready for application over	60	30	20	15	10	Minutes

The above data, even if carried out according to regulated tests are indicative and they may change when specific site conditions vary. ¹See the coverage section below. ²Figures are influenced by humidity and the porosity of the surface and so are indicative.

SBR VS ACRYLIC

Newton HydroCoat LiquaBond is dual-purpose acrylic product, functioning both as an admixture and a bonding primer. For this type of product, there is a trade-off depending on which base polymer is used, the two substantial ones are SBR (Styrene-Butadiene Rubber) or Acrylic (or Styrene-Acrylic) (HydroCoat LiquaBond)

HydroCoat LiquaBond exhibits higher performance than SBR for its primary use as tack-coat/primer or to increase bond as an admixture, but if increased flexibility is desired from the admixture, a SBR should be used.

LIFE EXPECTANCY

The product is fully taken up into the materials it is applied to or mixed with and therefore has a life expectancy that is the same as these materials.

TRAINING AND COMPETENCY OF THE USER

The application of HydroCoat LiquaBond requires no special skill sets, but is often used within exacting specifications and with products that require particular skill sets, such as waterproofing. It should therefore only be used by those who have experience with the products containing or applied to HydroCoat LiquaBond.

SPECIFICATION

Newton Waterproofing Systems work in partnership with RIBA NBS who publish our products on <u>NBS Source</u>. The platform integrates seamlessly 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 <u>case</u> <u>studies</u>, as well as product <u>literature and certifications</u>.

A wide range of drawings are available on our website.

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SUBSTRATE PREPARATION

Prepare the substrate as recommended for the product to be applied to the HydroCoat LiquaBond or that the HydroCoat LiquaBond will be mixed into:

As a Primer:

- All surfaces must be clean, dry (or only slightly damp), and structurally sound.
- Remove dust, dirt, grease, oil, loose coatings, laitance, efflorescence, and any curing agents or contaminants that may impair adhesion.
- If organic growth (e.g. moss, algae, mould) is present, treat the surface with a suitable fungicidal wash and allow to dry thoroughly before priming.
- On smooth, dense, or power-floated surfaces, light mechanical abrasion (e.g. sanding, grinding, or shotblasting) may be required to aid adhesion.

Repairs:

Fill cracks, holes, and surface imperfections using an appropriate filler or repair mortar such as <u>HydroCoat203-RM</u> which allow repairs to cure fully before applying the primer.

Moisture Check:

Substrates must not be saturated. Remove any standing water. Priming may proceed if the surface is only slightly damp.

As an Admixture:

All cementitious materials (cement, sand, aggregates) must be clean and free from oil, dust, or other contaminants.

PRIMER/TACK COAT COVERAGE

Coverage is determined by the density and porosity of the substrate.

- As a tack coat/primer dense, smooth concrete -0.15 litres/m²
- As a tack coat/primer medium density concrete -0.25 litres/m²
- As a tack coat/primer older or rough concrete 0.4 litres/m²
- As a tack coat/primer smooth and impervious materials - 0.10 litres/m²

MIXING RATIO - TACK COAT

Mix one part HydroCoat LiquaBond with one part water to achieve a ratio of 1:1.

APPLICATION - TACK COAT

Apply with brush or roller in one single coat, spreading the mix as evenly as possible. Avoid ponding.

Bond to vertical surfaces can be increased by adding small quantities of OPC to the mix. Brush well into the vertical surface. When rendering over waterproofing slurries, add OPC to the mix as described above and apply a 5mm bonding coat of render that includes HydroCoat LiquaBond to the mix, lightly scratching and roughing up the surface ready for the main scratch coat.

CURING - TACK COAT / PRIMER

Please refer to curing table above. Open tack time is 7 days. After 7 days, re-apply the tack coat.

ADMIX

HydroCoat LiquaBond can be mixed with water to create a gauging liquid that is suitable for all cement-based mixes and results in a mix that is more flexible, waterproof and exhibits increased adhesion.

Do not mix with other additives.

MIXING RATIO - ADMIX

Mix one part HydroCoat LiquaBond with two parts water to produce a gauging liquid with a ratio of 1:2.

- 1m³ (1000 litres) of mix = 67 to 75 litres of HydroCoat LiquaBond
- 1m² x 10mm (10 litres) of mix = 0.67 to 0.75 litre of HydroCoat LiguaBond
- 25mm x 25mm x 10m smoothing fillet (3.3 litres) = 0.21 to 0.23 litres of HydroCoat LiquaBond

The above calculations are based upon the following mix ratio for approximately 110 to 111.25 litres of 1:3 screed:

- 50kg cement
- 150kg sand
- 20 to 22.5 litres of gauging water

CURING - ADMIX

Please refer to the curing information of the product the HydroCoat LiquaBond is mixed into.

Generally, cure with damp hessian and plastic sheeting.

DO NOT spray directly with water. If a sprayed water cure is required, mix two parts clean water with one part HydroCoat LiquaBond.

POT-LIFE & FURTHER USE

HydroCoat LiquaBond is a single-component liquid with low viscosity and no chemical cure, so it has no potlife. When some product is unused, simply re-seal the packaging and use within shelf-life parameters.

HEALTH & SAFETY

Use appropriate PPE for the environment the system is installed within. Use products only as stated within this Data Sheet and the SDS.

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LIMITATIONS

- Always perform a small-scale adhesion test on unusual or non-cementitious substrates before full application.
- Do not apply at temperatures below 5°C or above 35°C.
- Avoid application in areas exposed to rain or frost during the curing process.
- Do not dilute the product beyond the recommended ratios, as this may compromise performance.
- When used as an admixture, ensure accurate dosing as overuse may weaken the final concrete or screed.
- Ensure that any subsequent coatings or finishes applied over the primer are compatible with an acrylic base to prevent adhesion failures.

CLEANING

Tools & Equipment:

Clean all tools and application equipment with warm, soapy water immediately after use. A stiff-bristled brush may be used to remove any stubborn residues. Once cured, the product becomes water-resistant, and mechanical methods will be required to remove dried material.

Spills & Surface Contamination:

Wipe up spills and splashes promptly while the product is still wet using a damp cloth or sponge. For larger spills, contain the material using an inert absorbent such as sand or vermiculite. Collect the waste into a suitable container and dispose of it in accordance with local waste management regulations.

REGULATORY

All components are REACH (Reg. (EC) No 1907/2006) registered or suitably exempt. The product does not contain any Substances of Very High Concern (SVHC).

TOXICITY AND SAFETY

Product is classified as non-hazardous according to the CLP Regulation (Reg. (EC) No 1272/2008). Refer to the Product Safety Data Sheet for recommended safety precautions.

STORAGE AND SHELF LIFE

Store in a dry, well-ventilated area at temperatures between 5°C and 30°C.

Keep the container tightly closed when not in use to prevent moisture ingress or contamination.

Protect from frost, direct sunlight, and sources of heat.

Do not allow the product to freeze. Material that has frozen and subsequently thawed should not be used.

When stored correctly in original, unopened packaging, the product remains usable for up to 12 months from the date of manufacture.

Once opened, use within 3 months and ensure the lid is replaced securely after each use.

Discard the product if thickening, phase separation, or an unusual odour is observed, as these may indicate degradation.

Stir thoroughly before each use. If the product does not regain a smooth, uniform consistency, dispose of it in line with local waste disposal regulations.