Cementitious waterproof coating



Revision: 1.7 - 15th July 2024 Code: HSS-20 & HSS-20B

INTRODUCTION

Newton HydroCoat Tanking Slurry is a single component, mineral coating that is simple to mix and easy to apply. Unlike conventional slurries, HydroCoat Tanking Slurry includes advanced crystallising and capillary-blocking chemicals that also enhance the monolithic bond of the coating to the substrate.

HydroCoat Tanking Slurry can be applied both internally and externally to a variety of substrates to form an effective barrier against positive and negative hydrostatic pressure, as well as non-pressurised moisture in the ground for use in damp-proofing applications. Applied in two coats, the 2mm coating is waterproof against water pressure of up to 7 bar. In addition to increasing the bond, the penetrating crystallising chemicals react with water and the calcium hydroxide within the concrete to actively seal developing micro-cracks.

The product is available in 20kg bags, or with the bags within a sturdy plastic container which doubles as a mixing bucket and is supported by BBA Certificate 23/6962, and so accepted by the NHBC as a suitable waterproofing system for Type A Waterproofing to Grades 1, 2 and 3 - BS 8102:2022. Just add water, mix and apply!

APPLICATION











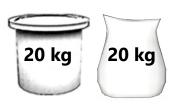
COVERAGE







PACKAGING

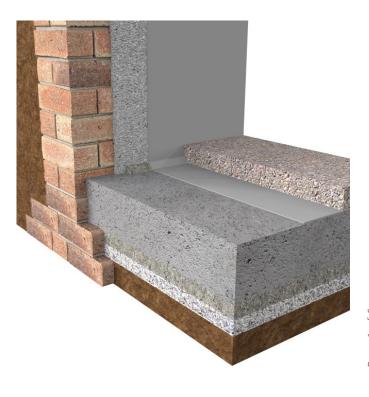


Single Component. Bagged or bag within bucket.



KEY BENEFITS

- Easy to mix single component slurry coating
- Brush, trowel or spray applied
- 2 mm slurry coat is fully waterproof to 7 bar
- Crystallizing agents penetrate deep into the substrate to enhance bond and seal capillaries and developing small cracks
- Permanent waterproofing of a wide variety of substrates
- Resists positive and negative water pressure and so is suitable for internal and external use
- Resistant to salt contamination in masonry
- WRAS approved for use with potable water
- Suitable for application to damp substrate
- Can be part-mixed
- Vapour permeable



HydroCoat Tanking Slurry Cementitious waterproof coating

TECHNICAL DATA						
Features	Result		Units			
Form	Powder					
Colour	Grey					
Pack Size	20		kg			
Shelf Life	12		Months			
Pot Life @ 20°C	30		Minutes			
Application Rate as Two Coat Tanking Slurry	2.8		kg/m ²			
Application Temperature	+5 to +35		°C			
Service Temperature	-15 to +180		°C			
Odour	Odourless					
VOC Content	Zero		%			
Cured Performance (Typical Values)	Result	Units				
Colour	Grey					
Slurry Tanking Thickness in One Coat	2	mm				
Elongation	Not elastomeric					
Flexural Strenth (28 Days)	7	N/mm²				
Compressive Strength (28 Days)	20	N/mm²				
Hardened Density (28 Days)	1850	Kg/m²				
Resistance to Water Pressure	≥ 7	Bar				
Reaction to Fire Classification	EUROCLASS F					
UV-resistance	Stable but may discolour					

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TYPICAL APPLICATIONS

Waterproofing of

- · Basements & cellars
- Retaining walls of concrete, brick and block
- Tanks, pools, ponds & planters

SUITABLE SUBSTRATES

- Concrete
- Structural masonry/mortar

SUITABLE SURFACES

Waterproofing of:

- Walls Positive pressure and negative pressure
- Slab/raft Negative pressure
- Soffit Negative pressure

METHOD OF APPLICATION

Slurry Waterproofing

- Brush
- Trowel
- Airless spray

SPECIFICATION

Newton Waterproofing Systems work in partnership with RIBA NBS who publish our products on NBS Source. 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 studies</u>, as well as product <u>literature and certifications</u>. A wide range of drawings are available <u>on our website</u>. The membrane should be seen as an investment and if possible, protected from wear and weathering.

PRIMING

Priming with Newton <u>HydroCoat LiquaBond</u> is recommended, especially where the substrate has high suction or is dusting out. Where the substrate has a very closed surface, LiquaBond should be used to increase grip.

Please follow the instruction within the HydroCoat LiquaBond TDS.

SURFACE PREPARATION

All water leaks should be stopped using <u>HydroCoat</u> <u>313 WP</u> (fast setting polymer compound to seal leaks), before starting the next step of application.

The surface must be clean, and free from dust, laitance, oils, paints or other forms of contamination. This may require wall surface preparation such as grit blasting or scabbling.

Pin holes and non-structural cracks that are between 0.5 mm and 2 mm wide should be filled with HydroCoat 105 1K using a bag rubbing technique.

Large holes or indentations should be filled with HydroCoat 203-RM. Remove snots.

In all cases, laitance to concrete floors should be removed with floor grinding products or industrial power washing (at least 2500 psi) to remove laitance. Vacuum clean after grinding. All structural cracks should be repaired and filled.

JOINTS & CHANGES OF DIRECTION

- Reinforce static joints with
 HydroCoat 912-RT">HydroCoat 912-RT
- Use the more flexible <u>HydroCoat 107 Elastic 2K</u>, reinforced with 912-RT, over joints between two forms of construction
- For the waterproofing of shrinkage or movement joints, please contact our Technical Department
- At internal changes of direction, apply a smoothing fillet of HydroCoat 203-RM mixed at 2-parts HydroCoat 203-RM to 1-part clean, washed, medium grade concreting sand

MIXING

HydroCoat Tanking Slurry can be applied by various means, meaning the consistency of the HydroCoat Tanking Slurry will vary to suit the method of application. Please see the required water additions and follow the recommended amounts depending on application method.

- Mortar 3.2-3.6 litres/20 kg
- Slurry tanking 3.2 4 litres/20 kg
- Spray mix 3.5-4.2 litres/20 kg

When mixing HydroCoat Tanking Slurry use the following:

- Clean water
- A clean mixing vessel
- Slow speed mechanical mixer and stirring paddle
- Pour into the mixing vessel the minimum requirement of clean water
- Gradually start to add the powder using an electric paddle, whilst mixing under low shear to reduce dust generation
- Add all powder and increase mixing shear.
- For approximately 1 3 minutes, mix to achieve a uniform, lump free slurry
- Gradually add water and mix if necessary, to achieve desired consistency. DO NOT exceed maximum required water additions as this will create an inaffective waterproof barrier

Cementitious waterproof coating

NOTE: Mechanical mixing must not exceed 5 minutes.

Use without delay.

Newton Waterproofing supply the full range of <u>Collomix Mixing Equipment</u> that includes Hand-Mixers, Stirrers, Mixing Stands, Buckets, Transport Carts and the Mixer Clean mixing bucket.

• Slurry tanking and Spray Mix - DLX stirrer

Use with Xo1 or Xo4 Hand Mixers which are suitable for quantities of up to 65 litres. For larger quantities use the MKD dual action stirrer with the Xo55 duo Hand-Mixer.

APPLICATION RATE

- Number of coats = 2
- Thickness of each coat = 1 mm
- Total thickness = 2 mm
- Coverage per coat = 1.4 kg/m²
- Total coverage = 2.8 kg/m²
- Coverage per 20 kg container = 7.0 m²

APPLICATION

HydroCoat Tanking Slurry is applied in two coats, with each coat applied at uniform thickness of 1mm per coat.

The mixed slurry can be applied by Brush, or trowel. Ensure that air is not entrapped into the surface.

Apply as explained within the APPLICATION RATE section which begins on page 3. Ensure that entrapped air is removed with a spiked roller.

Using a stiff bristled brush or trowel, apply in even layers. The first coat must be well brushed or trowelled into the substrate to ensure a good bond. Allow approx 2 - 5 hours for the first coat to harden.

The second coat can commence once the first coat is not pulled by the application of the second coat.

Apply the second coat of HydroCoat Tanking Slurry at right angles to the first coat.

Use wet-film-gauges to ensure correct thickness.

Application over cured product may require a primer. HydroCoat LiquaBond mixed 1:1 with water can be applied to enhance the adhesion of the second coat to the first.

CURING

Curing must commence within 10-15 minutes of the completed application of the coating. Normal curing procedures should be strictly adhered to. It is important that the surface of the mortar is protected from strong sunlight and drying winds with polythene sheeting, damp hessian or similar.

If HydroCoat Tanking Slurry is not protected as detailed above, the curing process will require that the finished coating is wetted by a fine-mist spray, 3 - 4 times daily, for a a minimum of 48 hours.

OVERCOATING & FINISHING

HydroCoat Tanking Slurry can be used for overcoating when it has been thoroughly and correctly cured. Plastering can commence using <u>Tarmac Whitewall Plaster</u>, 48 hours after the final coat of HydroCoat Tanking Slurry has been applied.

Repeat priming process previously specified before applying Tarmac Whitewall Plaster. You can find the application instructions on the Data Sheet via our website.

If the HydroCoat Tanking Slurry has been used as a DPC, on top of any finish, a breathable paint must be used on top.

TRAINING AND COMPETANCY OF THE USER

HydroCoat Tanking Slurry should only be used 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 waterproofing products, so as to achieve the required habitable grade as defined by BS 8102:2022.

It is recommended that HydroCoat Tanking Slurry and its ancillary products be installed by contractors trained by Newton Waterproofing Systems in the correct use and specification of the product.

LIFE EXPECTANCY

When specified, installed and protected in accordance with the TDS and fully and permanently isolated from UV light and physical damage or wearing, and only to those substrates confirmed, HydroCoat Tanking Slurry has a service life that can be equal to the design life of the structure.

The membrane is hard wearing but it is impossible to state how long the membrane will resist a certain type of wear before repair is required. If the wear expectations are high we suggest the O&M manual requests inspection at appropriate intervals. Please speak with the installing contractor or our Technical Team for advice.

ANCILLARY PRODUCTS

- HydroCoat LiquaBond
- HydroCoat 313 WP
- HydroCoat 105 1K
- HydroCoat 103 2K
- HydroCoat 107 Elastic 2K
- Tarmac Whitewall Plaster
- HydroCoat 203 RM
- HydroCoat 912-RT

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LIMITATIONS

- Always use the correct preparation and priming of the support substrate as directed within this data sheet
- Ensure the substrate temperature is not below 5°C before commencing application.
- Do not apply prior to heavy rain please see information within the curing table on page 2
- Do not apply at temperatures higher than +35°C and lower than +5°C and falling or where or temperatures are expected to fall below 5°C within 24 hours
- Ensure the substrate temperature is not below 5°C before commencing application
- Avoid accelerated drying, by avoiding application in direct sunlight or within a drying wind
- Gypsum plaster must not be used in direct contact with HydroCoat Tanking Slurry

COLOUR

Grey.

PACKAGING

20 kg bag - Purchase code HSS-20 Bag within bucket - purchase code HSS-20B

STORAGE

Store in dry conditions at temperatures between +5°C and +25°C with containers fully sealed. Do not expose to freezing conditions.

If these conditions are maintained and the product packaging is unopened, a shelf life of up to 12 months can be expected.

HydroCoat Tanking Slurry is to be stored upright at all times, under cover and away from high temperatures / open flames.

From the date of manufacture, HydroCoat Tanking Slurry has a shelf life of 6 months when unopened, undamaged and stored correctly.

CLEANING

Thoroughly clean all tools and equipment with water immediately after use.

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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Newton Waterproofing Systems Newton House 17-20 Sovereign Way Tonbridge Kent TN9 1RH

HSS-20

EN 1504-2: 2004 Cementitious waterproof coating

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Essential characte to BS EN 1504-2:		Test Standard & Conditions	Result	Unit of measure
Water vapour permeabili	ity	EN ISO 7783-1	Class I SD < 5	m
Capillary water absorptio	on	EN 1062-3	w < 0.1	kg/m². h ^{0,5}
Adhesion		EN 1542	≥ 1.0	N/mm2
Reaction to fire		EN 13501-1	Euroclass A1	
Dangerous substances			Complies with 5.3	



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EN 1504-2: 2004 Cementitious waterproof coating

ZZ VVAIE	RPROOFING		
Essential characteristics to BS EN 1504-2: 2004	Test Standard & Conditions	Result	Unit of measure
Water vapour permeability	EN ISO 7783-1	Class I SD < 5	m
Capillary water absorption	EN 1062-3	w < 0.1	kg/m². h ^{0,5}
Adhesion	EN 1542	≥ 1.0	N/mm2
Reaction to fire	EN 13501-1	Euroclass A1	
Dangerous substances		Complies with 5.3	

Any specification/advice provided is only valid if used with products supplied by John Newton and Company Ltd (trading as Newton Waterproofing Systems). Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our <u>website</u> for the latest versions.