Carbolink's Solutions for :

Waterproofing

Waterproofing Product Specifications & Technical Data Sheets(TDS)

Carbolink India Pvt. Ltd.

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India's Most Preferred
Construction Chemical Manufacturing Brand

Carbolink India Pvt. Ltd.
COMPANY PROFILE

For years, Carbolink India has been the Quality Leader in offering excellent Construction Chemical Products with Supreme Quality and Reliability.

Carbolink India Manufactures Industrial Flooring(Epoxy & PU Flooring), Decorative Flooring, 3D Flooring, Waterproofing Systems, corrosion protection, wood coatings, etc. which cater specifically to the Indian climate.With manufacturing facility in India, Carbolink India manufactures and supply Materials all through the country. Carbolink's commitment to customer service and technical support is the best. We work closely with architects, structural engineers, contractors and owners to best understand their requirements. Together we develop a best solution for a construction project, adding value and becoming more than just a materials supplier, but a solution provider.

With the support of our multinational manufacturing group, Carbolink India today has support centers across the country, strategically placed to provide consistent high standards of product and service.

Our Product Range:

- Anti Corrosive Coatings
- Car Park Flooring
- Curing Coumpounds
- Decorative Flooring
- Floor Hardner
- Grounts & Anchors

- Industrial Flooring
- Reparing Compunds
- Sealants
- Sports Flooring
- Tiling Products
- Wood Coatings

Waterproofing

Waterproofing is the process of making an object or structure waterproof or water-resistant, so that it remains relatively unaffected by water or resisting the ingress of water under specified conditions. Such items may be used in wet environments or under water to specified depths.

Waterproofing is used in reference to building structures (such as basements, decks, or wet areas), watercraft, canvas, clothing (raincoats or waders), electronic devices and paper packaging (such as cartons for liquids).

Carbolink manufactures a full range of world class Waterproofing systems providing the most up-to-date technologies. Carbolink India is a leader in tailored Waterproofing Solutions.

Here is our Waterproofing Products range:

AQUA TITE 4C

Single Component Waterproofing Slurry

FEATURES
Good abrasion resistance
The product is self curing in nature, no water is needed
Rapid & easy application
Single component system, no addition of liquid component
except water at site
Suitable for external and internal application

DESCRIPTION
AQUA TITE 4C is a single component polymer modified cementitious waterproofing compound. The mixed slurry greatly improves the bond strength and flexibility with concrete/sand cement screed. The product is self curing and no water is needed.

FEATURES/BENEFITS
- Can be used as a waterproofing sealer on rooftops etc.
- High strength: ideal for patching as it can be feathered out with minimal cracks, and also for use in coving areas.
- Non-toxic: does not cause occupational Health & Safety concerns.

TYPICAL APPLICATIONS
- Balconies, terraces and roof waterproofing
- Water tank
- Swimming pool
- Wall and floor in wet areas (toilet, bathroom, kitchen)
- Basement of the buildings
- Foundation - prevent capillary absorption

SURFACE PREPARATION
The surface to be treated AQUA TITE 4C should be clean, sound, free from oil, grease, laitance etc. New concrete should be allowed to cure for at least 28 days prior to application of AQUA TITE 4C. New brickwork walls, sand/cement render or screeds should be left for at least 7 days before application of the AQUA TITE 4C.

MIXING
Mix 20 kg of AQUA LITE 4C with 8 kg of water to get brushable consistency.

APPLICATION
Apply the Slurry compound on the surface using brush / roller
Primer Coat -
Powder : Water
1 : 1
Once the surface is ready and cracks are filled, apply 1 coat of the waterproofing slurry as primer.

1st Coat -
Powder : Water
1 : 0.40
Once the surface is touch dry apply 1st coat of waterproofing slurry.

2nd Coat -
Powder : Water
1 : 0.40
Apply the second coat of waterproofing slurry by brush or roller in opposite direction with respect to the 1st coat.

COMPLETE DRYING TIME
The surface shall be protected from foot traffic for 48 hours or heavy traffic / water tanks for 7 days.

LIMITATIONS
- Do not apply AT 107 as a waterproofing sealer if rain is imminent.
- Do not apply if the surface temperature is below 10°C or above 35°C.
- Protect from frost.

CLEANING
Clean tools with water before the slurry dries.

TECHNICAL DATA

AQUA TITE 4C	@ 27 ± 1ºC
Appearance	Grey powder
Specific Gravity (mixed material)	1.40
pH Value	9
Pot Life	40 minutes
Water absorption by Karsten Tube after 24 hrs, on concrete block	0.1 (ml)
Tensile Adhesion Strength as per EN 1348 on concrete block After 7days + 21d water.	1.51N/mm²
Tensile Adhesion Strength on concrete block After 28 days.	1.95N/mm²
Crack overbridging After 28 days as per EN 14891	0.75 mm
Water Impermeability After 28 days as per DIN 1048	5 Bar

COVERAGE ESTIMATES

Pack size	Coverage
20 kg	approximately 14m²@ 0.7 mm thickness (WFT).

STORAGE AND SHELF LIFE
AQUA TITE 4C has a shelf life is approx.12 months when stored in the original unopened packaging in a dry place at 30°C and 50% relative humidity. Protect liquid from frost, do not allow to freeze.

PRECAUTIONS
AQUA TITE 4C is non-toxic, however if it comes into contact with the eyes, wash immediately with plenty of water and seek medical treatment. When used with mortar (which is alkaline) skin contact should be avoided. Gloves and protective clothing should be worn.

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AT 105

External Anti - Carbonation Facade Membrane

FEATURES
External anti-carbonation façade membrane
Semi-permeable membrane – allows wall surface to breathe
Contains fungi and algae growth inhibitors
Provides excellent UV resistance and long term protection from elements
Water based, safe to use, low odour and easy cleaning
Decorative – choice of colours

DESCRIPTION
AT 105 is an extremely weather resistant water based acrylic waterproofing membrane. Specially designed as an exposed facade membrane, AT 105 prevents moisture, chloride ion and carbon dioxide entering and damaging the building structure while still allowing the substrate to breath.

AT 105 is also highly resistant to dirt retention, as well as containing fungi and algae growth inhibitors. The product's flexibility and high build qualities allow it to be applied over hairline cracks.

AT 105 is water based, low in odour and is available in a range of decorative colours.

FEATURES / BENEFITS
- Highly flexible & durable
- Self cleaning, low dirt retention
- Resists fungi & algae growth
- Large range of durable colours.
- Vapour permeable (allows facade substrate to breath).
- Prevents chloride ion, sulfide ion and carbon dioxide attack.

ACCEPTABLE SUBSTRATES
After appropriate surface preparation:-
- Rendered walls
- Brick/masonry walls
- Fibre cement sheets
- Tilt up and pre-cast concrete
- Light weight aerated concrete blocks(eg CSR Hebel)

TYPICAL APPLICATIONS
- Building facades and external walls.
- Roof parapets.
- Silos, lighthouses and other external structures.
- Particularly important in coastal areas, high traffic density areas for application over concrete and brick surfaces.

LIMITATIONS
Product should not be used in trafficable areas. Other AT 105 products are more suitable for this application. Do not apply AT 105 if the surface temperature is below 10°C or above 35°C. Do not apply if rain is imminent.

BASIC APPLICATION INSTRUCTIONS
Surface Preparation
The surface to be coated should be clean, sound, and free from oil, grease, form release agents or bondbreakers and other contaminants. All areas of loose or flaking paint must be removed to a firmly bonded substrate. Concrete surface pores must be open to enable good adhesion.

Cracks and voids
AT 105 can be applied directly over hairline cracks. All other cracks should be treated with a neutral cure silicone. Other deep surface imperfections should be repaired using CLI concrete repair mortars allowed to cure for 7 days before applying the membrane. Refer to CLI Central Technical Service Department for advice regarding areas of concrete spalling. Irregular surfaces resulting from peeled paint should be smoothed using CLI concrete repair systems.

Priming
All prepared surfaces should be primed with one coat of CLI 270 Solvent Based Primer at a rate of 6m² per litre. AAC (Hebel) or other highly porous surfaces may require two coats. Allow primer to be dry before applying the membrane (approx. 30 minutes).

Application of AT 105
Apply with nap roller, textured roller or paint brush. Ensure that the coating is applied evenly at the recommended coverage rates.

Apply the first coat of AT 105 at a rate of 1 litre per 2.8m² to achieve a wet film thickness of 0.35mm, and allow it to dry.

Apply the second coat at approximately the same rate to achieve a final dry film thickness of around 0.35mm.

PACK SIZE
15 Litres

COVERAGE
Coverage: 1 x 15 litre unit of AT 105 will cover approximately 20m² (at a dry film thickness, after two coats, of 0.35mm).

SAFETY PRECAUTIONS
AT 105 is non-hazardous; non-dangerous goods. Do not breath gas/ fumes/ vapour/ spray. Avoid contact with skin. If contact with eyes, rinse thoroughly with water.

STORAGE AND SHELF LIFE
The shelf life of AT 105 is 12 months in the original unopened packaging when stored in a cool, dry and well ventilated area. Keep containers securely sealed. DO NOT allow to freeze. Do not store in direct sunlight. Replace lid tightly after use. Product should be used within 6 months of the container being opened.

CLEAN UP & DISPOSAL
Clean all equipment with water prior to the product drying. Dispose of containers in compliance with all relevant local authorities, state and federal laws and regulations.

TECHNICAL DATA

Colour	Available in selected colour range
Specific Gravity	1.3Kg/L
Application Temperature	10°C - 35°C
Drying time: (25°C/50% RH)	
Surface Dry	2 hours
Recoat	4 hours
Hard Dry	7 days

Lower temperature and higher humidity will prolong drying

Carbon dioxide diffusion rate/sulfur dioxide Kopfler criterion (Min reqd. R>50m)	124 m
Water vapour transmission (ASTM E96-94)	39.8 g/m²/24hrs
Kopfler criterion (Max reqd. Sd<4m)	1.1 m
Chloride ion diffusion rate (as per TEL procedures)	7.7x10 m²/sec
VOC content	61g/L

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AT 107

Water Based Epoxy Sealer

FEATURES
Can be applied to wet or damp surfaces free from running or ponding water
Can be safely applied to freshly laid hardened (green) concrete
Tolerant to improperly prepared surfaces
Seals and binds dusty or loosely bound surfaces
Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, compressed fibreboard, stone and timber

DESCRIPTION
AT 107 is a two component water based epoxy Phenalkamine unpigmented sealer, binder used for sealing surfaces and providing a strong bond to difficult or improperly prepared surfaces.

FEATURES / BENEFITS
- Can be applied to wet or damp surfaces free from running or ponding water.
- Can be safely applied to freshly laid hardened (green) concrete.
- Consolidates weak or rain affected concrete surfaces to form a firm substrate for subsequent treatments.
- Has good penetration, even into fine grained substrates such as high strength concrete.
- Tolerant to improperly prepared surfaces.
- Seals and binds dusty or loosely bound surfaces.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, compressed fibreboard, stone and timber.
- Non-flammable & negligible odour.
- Convenient equal-part mixing ratio.
- Water thinned and clean up.
- Safe to use in sensitive locations (e.g. around food or habitable areas).

TYPICAL USES
- As a penetrating sealer to achieve bonding to high strength concrete or other fine textured surfaces.
- As a consolidation sealer for weak aged concrete prior to over coating with other covering or coating systems.
- As a bonding coating for surfaces where there is a risk of grease or oil in the surface.
- As a consolidation sealer for rain affected concrete to form a film substrate.
- As a waterproofing sealer for concrete, masonry, brickwork, fibre cement, plywood and particleboard in wet areas.
- As an industrial dust suppressant and sealer for warehouse and factory floors where colour is not critical.

LIMITATIONS
- Should not be applied when the surface temperature is below 8ºC or above 35ºC or when the relative humidity is above 90%.
- The curing reaction of AT 107 will cease at temperatures below 8ºC and recommence slowly and get progressively faster as the temperature rises above 8ºC.
- Good ventilation should be provided, either naturally or artificially, during the drying and curing cycle.
- Is not stable under ultra-violet unless under water.
- Is only trafficable when used as a sealer.
- Do not sandwich water or solvent based adhesives between AT 107 (or any other waterproof membrane) and low permeability floor coverings. The covering should be sufficiently permeable to allow the water or solvent to escape through the covering. Use of cement based ceramic tile adhesives is satisfactory as the cement consumes the water in reaction.

IMPORTANT
When using as a penetrating sealer prior to application of other coatings care should be taken to only apply sufficient material as is required to penetrate the substrate. If a glazed surface results it should be sanded before proceeding with other coatings.

Alternatively, allow the AT 107 about 1½ hours to penetrate and overcoat with a thin coat of AT 108 Water Based Epoxy Membrane at a coverage rate of 10 square metres per litre.

SURFACE PREPARATION
All surfaces to treated should be structurally sound and thoroughly cleaned free form all surface contaminates. All existing coatings should be removed prior to the application of AT107 and the pores of the concrete opened as for as possible by high pressure water blasting or abrasive blast cleaning. All concrete curing membranes or form release agents must be thoroughly removed prior to application of AT 107.

APPLICATION
Each component should be individually mixed to form homogeneous components then thoroughly mix the two components in the ratio of 1:1 by volume, preferably using a power stirrer, until a homogeneous mix is obtained. Only mix as much as may be used within the pot life of the product and avoid excessive aeration during mixing.

Once the components are mixed apply using brush, roller or spray application technique. When using brush or roller, work the product well into the surface. Take particular care not to apply excessive product as this will result in a film being formed over the surface, which will glaze and results in poor adhesion of subsequent coatings.

If a glazed surface results it must be sanded before proceeding with other coatings or adhesives.

To avoid obtaining this glazed surface, allow the AT 107 to penetrate for 60-90 minutes before applying a thin coat of CLI AT 108 Water Based Epoxy membrane at a coverage rate of 10 square metres per litre. when using as an industrial sealer and dust suppressant, two coats are normally required and it is preferable to apply the second coat after 60-90 minutes and in any event within the same day.

When applying as a bond coat to improperly prepared surfaces or surfaces that may have some grease or oil contamination, the surfaces should be first high pressure detergent washed and fresh water rinsed. The excess surface water should be removed using a squeegee and the WPM 200 applied immediately while the contaminates remain forced deep into the matrix of the substrate.

CLEANING
Thinning is not normally required other than for very fine grained substrates such as high strength concrete when the product may be thinned up to 20% with fresh clean water. Wash all equipment in water or water/detergent immediately on completion of work since AT 107 will cure underwater if equipment is left.

PACK SIZE

20 Kg	Part A : 10 Kg Part B : 10 Kg

STORAGE AND SHELF LIFE
AT 107 has a shelf life of 12 months when stored in original unopened container. Store in a dry place at 30°C. Protect liquid from frost, do not allow to freeze. Replace lid tightly after use.

TECHNICAL DATA

Colour	Red coloured transparent
Finish	Clear gloss, which darkens and goes to mat on aging
Volume solids	22 + 2%
Mixing ratio	1:1 (Part A / Part B) by volume
Pot life	4 hours @ 25ºC
Typical Coverage	8 -14 m² / litre / coat depending on the porosity of the substrate
Typical no. of coats	1-2 depending on purpose of application
Recoat time	1½ hours @ 25ºC & 50% R.H.
Full cure	7 days @ 25ºC & 50% R.H.

SAFETY DATA
AT 107 is classified as non-toxic, nonflammable and non-explosive. Avoid contact with skin and eyes and avoid breathing vapour or spray mist. Wear eye protection and protective gloves when mixing and using.

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AT 108

Water Based Epoxy Membrane

FEATURES
Water resistant, prevents rising damp, efflorescence and withstands hydrostatic pressure
Excellent adhesion to most substrates including damp surfaces and freshly laid green concrete
Safe to use in sensitive locations

DESCRIPTION
AT 108 is a two component water based epoxy membrane/ barrier coating. Approved for use with potable (drinking) water, independent testing confirms conformity with the requirements of AS4020.2000 and BS6920.

FEATURES / BENEFITS
- Non-flammable and negligible odour.
- Can be applied to damp surfaces.
- Can be safely applied to freshly laid hardened (green) concrete.
- Conforms to requirements of the:

TYPICAL APPLICATIONS
- As a low water vapour transmission coating in the building and construction industries and as a barrier/seal coating over freshly laid or damp concrete.
- As a hydrostatic pressure resistant waterproofing membrane to prevent water seepage or dampness penetration through to the interior of walls and floors.
- As a waterproofing barrier on the negative side in below grade surfaces such as basements, tunnels, liftwells, retaining walls and carparks.
- As a waterproofing membrane or barrier coating over freshly laid hardened (green) concrete, prior to the application of conventional levelling compounds, carpet and tile adhesives.
- As a waterproofing membrane in tanking applications, including potable water containment.
- As a barrier seal coating over damp, green or efflorescence producing concrete prior to overcoating with conventional building paints.

LIMITATIONS
Tiling can commence after 24 hours cure of AT 108 although should not exceed a maximum of five days. Installer is to ensure\ that there is no surface contamination during this period.

The product should be applied whilst the surface temperature is between 10 - 35°C. The product will cease to cure below 10°C. Curing time will also be adversely affected in situations where relative humidity is >85%.

In enclosed areas, ventilation must be provided during curing cycle to enable adequate evaporation of the water. Care should be taken when sandwiching adhesives between AT 108 and floor coverings to ensure the water vapour transmission of the covering is sufficient to allow the solvent to escape.

Aqua Seal is not classified as a trafficable membrane.

BASIC APPLICATIONS INSTRUCTIONS
Surface Preparation
All surfaces to be treated must be structurally sound; and existing coatings, adhesives, efflorescence should be removed to achieve maximum bond strength and resistance to hydrostatic pressure. Surfaces must be cleaned free of dirt, grease, oil, or other surface contaminants.

Holes, non-structural cracks or other surface deformities should be filled with an CLI Crete Bond (ECO) sand/cement mortar, AT 108 epoxy mortar or CLI concrete repair systems and allowed to cure for 2 - 3 hours before coating is applied.

Installation
Each component should be individually mixed to form a homogenous component. Thoroughly mix the two components in the ratio of 1:1 by volume until a homogeneous blend is obtained. Only mix as much as may be used within the p ot life and avoid excessive aeration during mixing.

When the product is to be applied to dry concrete it is advisable to wet the surface with a fine mist of water before application and allow to just surface dry.

Floors–Spread the material using a squeegee or stiff nylon broom to achieve coverage and finish using a long nap roller.

Walls–Apply the product by roller or spray taking care to achieve required coverage. Care must be taken to work the material into the surface to fill voids and avoid pinholing. A minimum of one coat for efflorescence and rising damp, two coats for waterproofing and waterproofing negative side walls is recommended and care should be taken to ensure uniformity of material and the required coverage is maintained. When finishing it is necessary to lay the material onto the surface and lightly finish to achieve the required dry film thickness per coat

The final coverage rate for all surfaces should be a total of 1.5 square metres per litre (3.0 square metres per litre wet applied per coat) to achieve optimum properties. In the event that this coverage rate is not achieved in two coats, further coats should be applied to achieve a total uniform coverage rate of 1.5 square metres per litre.

Allow to cure for 24 hours before applying water based adhesives, mortars, levelling compounds, decorative coatings or other surface treatments. Care is necessary to ensure the waterproofing membrane coating is not damaged in any way during subsequent treatments.

TILING APPLICATIONS

Substrates such as screeds and renders should be normally allowed to dry for 7 days prior to the fixing of ceramic tiles. Alternatively Aqua Seal can be applied in one coat by brush or roller application at a coverage rate of 3m²/L. Whilst the coat is wet, clean dry sand of 0.5mm diameter shall be broadcast over the surface at a rate of 700g/m² to achieve at least 90% coverage. After overnight cure the excess sand shall be swept and vacummed from the surface.

FLOORING APPLICATIONS

Where concrete subfloors are damp (moisture content exceeds 5.5% or have a relative humidity of 70%) Aqua Seal can be applied as a moisture barrier. Two coats are applied at 3.0 square metres per litre per coat. The second coat can be sand seeded as is done for tile applications, or left neat and CLI N16 Primer primer applied before the smoothing cement. A single coat of AT 108 applied at 2.5 square metres per litre per coat acts as a moisture stop for ‘green concrete’ not subject to rising damp or permanent moisture.

PACK SIZE

20 Litres	Part A : 10 Kg Part B : 10 Kg

SAFETY PRECUTIONS

AT 108 is hazardous and may cause sensitisation by skin contact. Keep containers in a well ventilated place and tightly closed. Take off immediately all contaminated clothing. In case of eye contact, rinse with plenty of water and contact Doctor or Poisons Information Centre. If swallowed immediately contact Doctor or Poisons Information Centre. Avoid release to the environment.

STORAGE AND SHELF LIFE

Aqua Seal has a shelf life of 12 months when stored in original unopened container. Store in a dry place at 30°C and 50% relative humidity. Protect liquid from frost, do not allow to freeze. Replace lid tightly after use.

THINNING AND CLEAN UP

The first coat should be thinned with water, as required depending on the porosity of the surface to be coated (up to 20% for dense surface to 5% for more porous surfaces) to ensure optimum penetration. Thinning of the second coat should be avoided since this increases the difficulty in achieving the required dry film thickness. Wash all equipment in water or water/detergent immediately on completion.

TECHNICAL DATA

Colour	Grey
Finish	Semi-gloss going to matt with aging
Volume solids	44%
Mixing ratio	Coverage Must be applied at a rate of 1.5 square metres per litre (3.0 square metres per litre per coat) to achieve an effective waterproofing membrane 1:1 (Part A:/Part B) by volume
Wet Film Thickness	300 microns per coat
Recoat time	4 hours @ 25°C, 50% RH
Full cure	7 days @ 25°C, 50% RH
Pot life	2 hours @ 25°C 1 hour @ 35°C
VOC content	26g/L

The recommended wet film thickness specified produces a nominal dry film thickness of 150 micrometers (0.15mm) per coat or 300 micrometers (0.3mm) for two coats. The apparent dry film thickness will reduce depending on the porosity of the substrate, however the product absorbed by the substrate forms part of the waterproofing function.

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AT 109

Water Based Primer

FEATURES
Creates a positive bond between the substrate and most water based coatings
Can be used on substrates like new and old concrete, timber and compressed fibre boards

DESCRIPTION
AT 109 is a red pigmented, acrylic primer system which creates a positive bond between the substrate and most water based coatings. Designed principally for internal use, AT 109 can also be used for external applications.

TYPICAL APPLICATIONS
- New and old concrete.
- Timber.
- Compressed fibreboards.
- Primer for acrylic coatings.

APPLICATION REQUIREMENTS
Substrate Preparation
The surface to be coated should be dry, clean, sound and free from oil, grease and flaking paint. New concrete should be left a minimum of 28 days and new render a minimum of 7 days before application commences. All cracks or holes exceeding 2mm are to be repaired before application commences.

Application
Apply with brush, long nap roller or conventional spray. Ensure that the coating is applied evenly at the recommended coverage rates. Allow a drying time of at least one hour.

LIMITATIONS
- Do not apply AT 109 if the temperature is below 10°C or above 35°C.
- Primed surfaces should preferably be overcoated within the same day of application to avoid intercoat contamination.

COVERAGE
Approximately 6 m²/litre. Coverage rate may vary depending on the porosity of the surface.

PACKAGING
5 Litres

CLEAN UP
Clean all equipment in fresh water after use.

STORAGE AND SHELF LIFE
AT 109 has a shelf life of 12 months in unopened containers stored at 20°C.

SAFETY DIRECTIONS
AT 109 is non-toxic. Avoid contact with skin and inhalation of the vapour. Wear protective eye/face protection and gloves when handling. Provide adequate ventilation. Wash off splashes with clean water. If irritation persists, seek medical advice.

TECHNICAL DATA

VOC Content	11g/L

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AT 109 C

Water Based Epoxy Bonding Bridge

FEATURES
Water Based Epoxy Bonding Bridge
Penetrating Structural Sealer
Forms a structural bond between new and old concrete
Can be applied to damp surfaces
Compatible with fresh cement or concrete products
Excellent adhesion to most substrates

DESCRIPTION
AT 109 C is a two component water based epoxy unpigmented new to old concrete bonding bridge and admixture for cement based materials and structural penetrating sealer.
- Non-flammabe and negligible odour.
- Convenient equal part-mixing ratio.
- Surface tolerant.
- Water thinned and clean up.

FEATURES / BENEFITS
A relatively high solids product specifically designed as a high strength bonding bridge for bonding new render or concrete to aged concrete substrates. AT 109 C is also used as an epoxy admixture for cemetitious products used for concrete repair. When thinned 50% with water it forms a structural penetrating sealer.
- Forms a structural bond between new and old concrete.
- Can be applied to damp surfaces.
- Is compatible with fresh cement or concrete products.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, compressed fibreboard, stone and timber.

TYPICAL APPLICATIONS
- As a new to old concrete bonding bridge to substantially improve the bonding characteristics.
- As an admixture to cement to produce variable strength repair mortars and waterproofing grouting material.
- As a concrete curing membrane to contain the water and as an aid to the curing of and sealing of concrete.

LIMITATIONS
The product should be applied whilst the surface temperature is between 10° - 35°C. The product will cease to cure below 10°C, but will recommence curing when the temperature rises above 10°C. Curing time will also be adversely affected in situations where relative humidity is > 85%.

Good ventilation should be provided during curing cycle.Will turn yellow when exposed to ultra violet light for extended periods.

The cured coating will form a glazed chemically resistant surface finish which must be well sanded to produce a course surface profile prior to adhering any product to the cured film. When used as a penetrative sealer the surface may darken slightly with age.

BASIC APPLICATIONS INSTRUCTIONS
Surface Preparation
All surfaces to be treated must be structurally sound, all previous coatings should be removed and the surface cleaned free from contaminants.

Installation
Each component should be individually mixed to form homogeneous components. Thoroughly mix the two components in the ratio of 1:1 by volume, preferably using a power stirrer, until a homogeneous mix is obtained. Only mix as much as be used within the pot life of the product and avoid excessive aeration during mixing.

Application as a New To Old Concrete Bridge
Apply one coat by brush, roller or spray to a section of the area to be treated at a coverage rate of 7 square metres per litre. Only apply the Bonding Bridge to an area to which the new render or concrete can be placed while the bonding bridge remains wet or tacky.

Immediately following application of the AT 109 C, place the new render or concrete and finish as required. Repeat the process until the full area to be treated is complete.

Application as Concrete Repair Mortar
After mixing the WPM AT 109 C mix with an equal volume of cement and add a fine particle grade river washed sand to achieve the desired working consistency (normally 2-3 times the volume of cement added).

During trowel finishing of the concrete repair mortar, use a wet trowel to avoid drag-up and to obtain a smooth finish.

Application as Concrete Curing Membrane
Apply one coat by brush, roller or spray at a coverage rate of 3 square metres per litre. Note that surfaces must be sanded in the event of application of coatings or adhesives after the film has cured.

SAFETY PRECAUTIONS
AT 109 C Part A and Part B are hazardous goods and may cause sensitization by skin contact. They are harmful by inhalation, in contact with skin and if swallowed. They are irritating to eyes and skin. Keep containers tightly closed and in a well ventilated place. Take off immediately all contaminated clothing. Avoid contact with skin and eyes. It is recommended that protective gloves be used during application.

PACK SIZE

20 Kg	Part A : 10 Kg
	Part B : 10 Kg

STORAGE AND SHELF LIFE
AT 109 C has a shelf life of 12 months when stored in original unopened container.

CLEANING UP & DISPOSAL
Thinning is not recommended when using this product for the applications described. Wash all equipment in water or water/detergent immediately on completion of work since AT 109 C will cure underwater if equipment is left.

TECHNICAL DATA

	Bonding Repair	Curing Bridge	Mortar Membrane
No. of Coats	1	n/a	1
Coverage (m/ltr)	7	n/a	3
(m/L of 6mm topping)	n/a	0.6	n/a
Pot Life (hrs @ 25ºC)	1	_	1
Cure Time (@25ºC)			
Hard Dry (hrs)	24	24	24
Full Cure (days)	7	7	7
Bond Strength (Mpa)	5	n/a	5
VOC Content	18g /L		

Note: The Concrete Repair Mortar must be installed over the New to Old Concrete Bonding Bridge.

DISCALIMER
The technical details recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Standard, our instructions and recommendations are only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program.

The supply of our products and services are also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request you should make yourself familiar with them.

AT 111C

Crystalline Capillary Waterproofing

FEATURES
Suitable for sewage treatment and water treatment plant, water tanks, concrete pipes and manholes
Deeply penetrates and seals the substrate
Single component system, no addition of liquid component except water at site
Suitable for external and internal application
Toxic free - Providing protection against corrosive waterborne salts
Can be left exposed

DESCRIPTION
AT 111C is a single component polymer modified cementitious waterproofing compound. The mixed slurry as excellent adhesion with concrete / sand cement screed. During application it seals the hairline cracks caused by shrinkage or expansion.

AT 111C penetrates into the pores of the substrate by capillary action and is channelled to the lower depths of the concrete by the moisture that is present, this occurs even in the smallest pores and capillaries. The reaction between moisture and the active AT 111C chemicals creates a continuous barrier of insoluble crystals. The crystal formation follows the water back as far as it is present in the structure. The capillaries are permanently blocked to the passage of water however vapour may pass allowing the structure to breathe.

Rate and penetration of crystal formation depends on the presence of free lime and the density of the concrete. Old concrete may have no free lime present and this needs to be determined prior to application.

AREAS OF APPLICATION
Basements, Retaining walls, Wet areas, Balcony, Roof terrace areas and Water tanks etc.

STANDARD
AT 111C conforms to the Overall Migration Standards laid down in 21 CFR 175 - 300 (April 1, 2011) of US - FDA for intended use for contact with potable water.

SURFACE PREPARATION
The substrate must be dry, hard, sound and free of dust and other barrier materials such as paint, wax, polish, lime coatings, plaster, curing agents, laitance, adhesive residues etc., which will inhibit adhesion to the substrate. New substrate shall be allowed to cure and dry as per standard procedure.

NOTE: Any joints in the substrate where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface. All cracks, pipe penetration, construction joints, bore packing, corners etc., shall be treated as per CLI specification prior to application of AT 111C. New concrete should be allowed to cure for at least 28 days.

MIXING
Mix 20 kg AT 111C with 6.70kg of water using suitable slow speed spiral drill to get brushable consistency. Pre wet the surface prior to the application. Apply the slurry compound on prepared surface using brush or roller. The surface shall be protected from foot traffic for 48 hours or heavy traffic / water tanks for 7 days.

APPLICATION
Once the surface is ready pre wet the surface using water and apply 1 coat of the waterproofing slurry.
1st Coat - Powder : Water
3 : 1
Apply the second coat of waterproofing slurry by brush / roller / broom in opposite direction with respect to the 1st coat.

2nd Coat - Powder : Water
3 : 1

CURING
AT 111C system application must be kept moist for a minimum of 48 hours. After Initial set, moist curing, using continuous water spray is recommended.

CLEANING
Wash hands, brush, rollers, etc. with water while the membranes is still fresh.

PROPERTIES
The values shown are typical of results obtained in the laboratory at 27 ± 1ºC. Actual performance values obtained on site may vary from those quoted.

PHYSICAL PROPERTIES

AT 111C	@ 27 ± 1ºC
Mixed material density	1.75 - 1.85 g/cc
Recoating time	6 - 8 hours
Pot life	30 minutes
Depth of penetration	22mm
DIN 1048 part 5	
Full cure	48 hours
VOC Content	4.29g/L

COVERAGE ESTIMATES
Spillage of any of the component products should be removed with plenty of water. Disposal of such product or empty packaging should be in accordance with local waste disposal authority regulations.

CONDITIONS OF SALE

Pack size	Coverage
20kg	Approximately 13 - 16.50m² per two coats @ 150 - 200 microns thickness

NOTE : These figures are theoretical, due to the wastages and the variety and nature of substrates practical coverage figures may be reduced.

STORAGE AND SHELF LIFE
AT 111C should be stored under the same conditions as cement; store in cool, dry shaded warehouses. AT 111C should not be stored in direct contact with the floor. When stored under the correct conditions will have a shelf life of 12 months.

PRECAUTIONS
In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to epoxide materials. Always wear gloves and eye/face protection is necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL / SPILLAGE
Spillage of any of the component products should be removed with plenty of water. Disposal of such product or empty packaging should be in accordance with local waste disposal authority regulations.

CONDITION OF SALE
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NOTE
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CEM 2K (Eco)

Two Component Acrylic Modified Flexible Cementitious Waterproof Coating

FEATURES
Flexible - Accommodates normal building movement
Two component elastomeric waterproofing system
Advanced acrylic based
Protect the concrete from long term weathering and resists UV rays
Water based - safe to use, low odour & easy cleaning
Suitable for all cementitious substrates

DESCRIPTION
CEM 2K Eco is a two component waterproof coating specifically designed for use on roofs, water tanks, water retaining structures as well as in bathrooms, showers, kitchens as an under tile protective membrane. CEM 2K Eco is flexible, safe to use, low in odour and toxic free.

The products have been uniquely formulated with special polymer to increase its strength. CEM 2K Eco is based on the most advanced acrylic polymer technology and is totally resistant to re-emulsification.

SURFACE PREPARATION
The substrate must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues etc., which will inhibit adhesion to the substrate.

Use a suitable Degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated substrates should be mechanically prepared, either by grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying CEM 2K.
NOTE : Any joints or cracks in the substrate where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface.

MIXING & APPLICATION
Individual contents of the CEM 2K Eco should be thoroughly stirred before being mixed together. The entire content of the Part A (5 Litres) should be poured into a larger mixing vessel to incorporate water and powder. Add approximately 2.5 Litres of water to the same vessel and mix for one minute. Finally add the Part B to the same vessel. Mix all the three materials with spiral mixing paddle in a slow speed drill, continue until a consistent homogenous mix is achieved. One or more packs can be mixed simultaneously to ensure a quick rate of installation.

Apply CEM 2K Eco by brush or roller. A medium nap paint roller is recommended. New rollers should be dampened with water before being used for the first time. For best results with a paint brush use a good quality, 50mm long bristle variety.

To achieve the required dry film thickness per coat application must consist of laying the product onto the surface and light finish the surface. Do not try to apply in the same manner as a building paint. A conventional building paint is normally applied at 25 - 40 microns for wet film thickness while Acrylic polymer waterproofing needs to be applied at between 0.8mm and 1.0mm per coat depending on product and application.

CLEANING
Wash hands, brushes, rollers, etc, with water while the membrane is still fresh. Remove cured material with mineral turpentine.

PROPERTIES
The values shown are typical of results obtained in the laboratory at 27 ± 1ºC. Actual performance values obtained on site may vary from those quoted.

COVERAGE ESTIMATES

Pack size	Coverage
20kg	Approximately
Part A 5 litres	14 m² per pack
Part B 20kg	@ 0.8 mm - 1.0 mm thickness per coat
4kg	Approximately
Part A 1 litre	2.5 m² per pack
Part B 3kg	@ 0.8 mm - 1.0 mm thickness per coat

PHYSICAL PROPERTIES

CEM 2K Eco	@ 27 ± 1ºC
Pot life	60 minutes
Appearance	Grey colour, Homogeneous, with brushable consistency
Mixed material density	1.65 - 1.70 gram/cc
Bond strength	> 1.0 N/mm²
7 days	
Permeability Test	22mm
As per DIN - 1048	
(part 5) 1991	

STORAGE AND SHELF LIFE

CEM 2K has a shelf life of 12 months if kept in a dry, store between 5ºC and 30ºC in the original unopened containers. The product should be protected from frost, away from direct sunlight and sources of heat.

PRECAUTIONS

In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to epoxide materials. Always wear gloves and eye/face protection is necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL / SPILLAGE

Spillage of any of the component products should be removed with plenty of water. Disposal of such product or empty packaging should be in accordance with local waste disposal authority regulations.

CONDITIONS OF SALE

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CLI IW

Integral Liquid Waterproofing For Cement Plaster And Concrete (PCC)

DESCRIPTION

CLI IW is special type of integral liquid water proofing compound composed of wetting agent, plasticiser, polymers and additives. It is an admixture for concrete, mortar and plasters. It contains additives and polymers which makes the concrete cohesive and less of capillaries. It meets the requirements of IS 2645- 2003 and IS 9103- 2000 standards.

ADVANTAGES

- Reduces Permeability
- Easily dispensable / compatible
- Reduces capillary
- Avoid shrinkage crack development
- Facilitates better workability
- Enhance durability

APPLICATION

- Used in basement, roof slab, screed.
- Water tank, terrace, floors that must be water tight.
- External plastering, bathroom and balconies.
- Mass concrete foundation walls

APPLICATION METHODOLOGY

- Cement, sand and aggregates are charged in the mixer and dry mix for 2 minutes
- Add 75-80 % of water and mix for 3 minutes.
- CLI IW is added as per the recommended dosage into the remaining part of the water and the mix is added to concrete mixer & mixed for another 2 minutes.
- Place the concrete or apply plaster, as needed.
- Cure the applied mortar or concrete as per good construction practices

CHARACTERSTICS

Colour	Wine Colour
Specific Gravity @ 30 ^{O}C	1.08 ± 0.01
pH	9 - 13
Water Permeability	Pass
Non Volatile Content, %	15 ± 1
Chloride content, %	< 2
Setting Time, minutes	40 - 550
Dosage, ml / 50 kg cement	200

HEALTH & SAFETY

- Use nose cover, goggles and hand gloves during application.
- Clean hands with soap water after application.

PACKING

Material is available in 1 L, 5 L and 20 L.

STORAGE AND SHELF LIFE

Keep in a cool and dry place under shed away from heat. The shelf life of product is 12 Months in original unopened sealed condition.

CONDITIONS OF SALE

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CLI IW ++

Integral Waterproofing-cum-Corrosion Inhibitor For Reinforced Cement Concrete (RCC)

DESCRIPTION

CLI IW ++ is revolutionary liquid waterproofing compound which protects concrete internally from water ingress as well as saves the re-bars of reinforced concrete and mortar against chloride induced corrosion. The unique bi-polar compound migrates through concrete during curing process and puts a passive layer over re-bars to stop chloride corrosion. It meets the requirements of IS 2645, IS 9103 and ASTM C 1582M.

ADVANTAGES

- Corrosion resistant & highly impermeable
- Easily dispersible & compatible with RCC
- Highly compressive strength
- Reduces shrinkage crack development
- Provides greater workability
- Increase durability of concrete

APPLICATION

- Used in RCC floors, walls and slabs.
- Mass concrete casting making dyke walls
- Bridges and Marine structures
- Deicing areas.

APPLICATION METHODOLOGY

- Dry mix cement, sand, aggregate in concrete mixer for 2 minutes.
- Add 75-80% of required water into the mix and mix for 3 minutes.
- Add CLI IW++ in the ratio of 200 ml per bag of cement in remaining water and then wet mix for 2 minutes after adding such dosed water.
- Place the concrete or apply plaster, as needed
- Cure the applied mortar or concrete as per good construction practices.
- For Air entraining agent, a pre-blend trial must be done to decide the doses of air entraining agent as CLI IW++ with air entraining agent increases air producing efficiency.
- Compatible with all types of Portland cement including SRC (Sulphate Resistance Cement) and not compatible with high alumina cement.

CHARACTERSTICS

Appearance	Light yellow free flowing liquid
pH	9 - 13
Specific Gravity @ 30 ^{O}C	1.09 ± 0.01
Water permeability	Pass
Non Volatile, %	18 ± 1

HEALTH & SAFETY

- Use nose cover, goggles and hand gloves during application.
- Clean hands with soap water after application.

PACKING

Available in 5 L, 20 L and 200 L container.

STORAGE AND SHELF LIFE

Keep in a cool and dry place under shed away from heat. The shelf life of product is 12 Months in original unopened sealed condition.

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CLI - RAINGUARD

Protective And Waterproof Coating Coating for Roof and Facades

DESCRIPTION
CLI - RAINGUARD is a one part coating based on water dispersed acrylic resin designed for protection, decoration and waterproofing of facades, with a smooth coloured finish.

USES
- As a protective decorative and waterproofing coating for concrete, mortar, brick and stone facades
- As an interior walls decorative coating in public buildings such as hospitals, schools and museums etc.
- As a base coat for the subsequent application of the textured top coat - CLI - RAINGUARD

TYPICAL APPLICATIONS
- As a temporary waterproofing sealer in high exposure areas such as rooftops, While new waterproofing membrane is being installed. When used under sheet membranes, it limits gassing.
- As a slurry coat prior to applying renders or toppings.
- As an admix for sand/cement mixes especially in repair mortars, fillets, covings, renders and screeds.
- As a bonding bridge for new to old concrete.

CHARACTERISTICS / ADVANTAGES
- High diffusion resistance against CO_2 reducing the rate of carbonation
- Water vapour permeable, allowing the substrate to breathe
- Excellent resistance against weathering and ageing
- Waterproof against driven rain
- Environmentally friendly, solvent free product
- Easy application
- High alkali resistance
- Non tacky with reduced tendency to dirt-pick up
- Good opacity and covering ability

APPLICATION DETAILS
CONSUMPTION
External Wall Membrane Application
0.6 kg/Sq.Mtr in 2 coats at a total dry fill thickness of 0.3

ROOF MEMBRANE APPLICATION
2 kg/Sq.Mtr in 2 coats at a total dry fill thickness of 1.0

Substrate Preparation
Exposed concrete without old coatings:
The surface must be clean, sound, dry and free from loose or friable particles. Suitable preparation methods are steam, high pressure water jetting or blastcleaning.

Exposed concrete with old coating:
Old coatings must be tested for their adequate adhesion to the substrate - adhesion test average > 0.8 N/mm^2 with no single value below 0.5 N/mm^2 .

If there is inadequate adhesion then:
- Old coatings must be completely removed by suitable methods and the substrate must be sufficiently sound and prepared before coating.

If there is adequate adhesion then:
- Thorough cleaning of all surfaces is required, by steam cleaning or high pressure water jetting.

APPLICATION INSTRUCTION

Mixing

For normal usage, CLI - RAINGUARD is supplied ready for use. Stir thoroughly prior to application. For use on very absorbent substrates, add up to a maximum of 10% water - stir well prior to use.

Application Method / Tools

CLI - RAINGUARD can be applied by brush, short pile roller or airless spray.
The second coat should be applied in a cross wise direction to achieve optimum opacity.

Cleaning of Tools

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

TECHNICAL DATA

Chemical Base	Filled acrylate resin dispersion
Density	1.40 kg/l (at +20°C)
Solid Volume	68% by volume
Solid Content	55% by weight
Water Vapour Transmission at 1.0 mm	21.9g/sq mtr/24 hrs
Tensile strength As1145	
After 28 days dry	2.1 MP a
After 14 days UV exposure	3.0 MP a
Elongation at break AS 1145	
After 28 days dry	460%
After 14 days UV exposure	315%
Overcoat time	8 hrs @ 23 C 50% RH
Application temperature	10^0 C - 35^0 C (Surface Tem)
Service temperature	0^0 C - 6^0 C

DISCLAIMER

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CLI – ROOF SEAL

Protective and Waterproof Coating for Roof and Facades

DESCRIPTION
CLI – ROOF SEAL is a one part Silicon blended coating based on water dispersed acrylic resin designed for protection, decoration and waterproofing of facades, with a smooth coloured finish.

USES
As a protective decorative and waterproofing coating for concrete, mortar, brick and stone facades As an interior walls decorative coating in public buildings such as hospitals, schools and museums etc. As a base coat for the subsequent application of the textured top coat - CLI – ROOF SEAL

CHARACTERISTICS / ADVANTAGES
High diffusion resistance against CO_2 reducing the rate of carbonation Water vapour permeable, allowing the substrate to breathe Excellent resistance against weathering and ageing Waterproof against driven rain Environmentally friendly, solvent free product Easy application High alkali resistance Non tacky with reduced tendency to dirt-pick up Good opacity and covering ability.

APPLICATION DETAILS
Consumption
EXTERNAL WALL MEMBRANE APPLICATION
0.6 kg/Sq.Mtr in 2 coats at a total dry fill thickness of 0.3

ROOF MEMBRANE APPLICATION
2 kg/Sq.Mtr in 2 coats at a total dry fill thickness of 1.0

SUBSTRATE PREPARATION
Exposed concrete without old coatings:
The surface must be clean, sound, dry and free from loose or friable particles. Suitable preparation methods are steam, high pressure water jetting or blastcleaning.

Exposed concrete with old coating:
Old coatings must be tested for their adequate adhesion to the substrate – adhesion
test average > 0.8 N/mm^2
with no single value below 0.5 N/mm^2

If there is inadequate adhesion then:
- Old coatings must be completely removed by suitable methods and the substrate must be sufficiently sound and prepared before coating.

If there is adequate adhesion then:
- Thorough cleaning of all surfaces is required, by steam cleaning or high pressure water jetting.

APPLICATION INSTRUCTIONS
Mixing
For normal usage, CLI – ROOF SEAL is supplied ready for use. Stirr thoroughly prior to application. For use on very absorbent substrates, add up to a maximum of 10% water stir well prior to use.

Application Method / Tools
CLI - ROOF SEAL can be applied by brush, short pile roller or airless spray The second coat should be applied in a cross wise direction to achieve optimum opacity.

TECHNICAL DATA

Chemical Base	Filled acrylate resin dispersion
Density	1.40 kg/l (at +20°C)
Solid Volume	68% by volume
Solid Content	55% by weight
Water Vapour Transmission at 1.0 mm	21.9g/sq mtr/24 hrs
Tensile strength As1145	
After 28 days dry	2.1 MP a

After 14 days UV exposure	3.0 MP a
Elongation at break AS 1145	
After 28 days dry	250%
After 14 days UV exposure	315%
Overcoat time	8 hrs @ 23^0C 50% RH
Application temperature	10^0C - 35^0C (Surface Tem)
Service temperature	0^0C - 60^0C

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CLI TOUGH COAT

DESCRIPTION
CLI - TOUGH COAT a waterborne, synthetic rubber/ styrene-acrylic copolymer formulation, which may be applied by brush, roller or airless spray equipment. It is free from strong odor and toxic fumes and cures to form a tough, matt, elastomeric membrane, which tolerates substrate movement and does not embrittle with age, or prolonged exposure to ultra-violet light.

BENEFITS
- Water- based
- Single component
- No pot life limitations
- Easy application by brush, roll or spray
- Cost effective
- Excellent UV and thermal stability
- Suitable for flat or pitched roofs
- Permanently elastomeric- does not embrittle
- Anti-carbonation properties
- Self cleaning and resistant to algae growth
- Long shelf life
- Resistant to chemicals/pollution

MINIMUM APPLICATION TEMPERATURES
502F throughout the application and curing period, ensure that the substrate and atmospheric conditions remain 502F and 52F above the dew point.
Do not allow temporary ponding to remain between coats on any horizontal surfaces or until the final coating has totally cured (up to 7 days at a minimum of 502F). Brush or mop surface water away during this time. Do not allow the applied CLI - Tough Coat to be exposed to freezing temperatures until the final coating has totally cured (up to 7 days at a minimum of 502 F). Premature exposure to above conditions could cause flaking, cracking and/or coating failure.

STORAGE TEMPERATURES
Minimum temperature: 502F
Maximum temperature: 952F

PACK SIZES
1, 5 Ltrs

ANTI CARBONATION
Equivalent carbonation barrier to 520 meters or 1,706 feet of air. (Effective barrier = 50 meters).

SCRATCH RESISTANCE
B53900: Part E2
Withstands 1 Kg or 2.2 pounds without damage.

SUB TROPICAL TESTING (Florida Weathering)
ASTM G7- 6 months
No discoloration, defects, crazing, flaking or lichen growth

TECHNICAL DATA

Water Vapour Permeability
BS.3177 (temperate)
500g/m2/24 hours at 0.47mm nominal dry film thickness.

Impact resistance
BS.3900: Part E3
Withstands 5mm indentation without damage to film.

Accelerated weathering
ASTM G53-3000 hours
No surface defects, crazing or flaking.

Chemical resistance
Resistant to a range of chemicals including acids and alkalis (10% solutions).

Approximate solids content
60.5% by weight
49.5% by volume

Elongation
320% using P10 system

Tensile strength
1.80 N/mm^2 using P10 system

Specific gravity
1.25

Typical drying times
(50% Relative Humidity and 22 mils Wet Film Thickness)
At 502F -Touch dry at 1 hour and through dried at 2 hours. 682F — Touch dry at 45 minutes and through dried at 1 hours. Allow 24 hours between coats.

CONDITIONS OF SALE
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CLI Wall Prime WB

Acrylic Polymerised Water Based Architectural Primer

DESCRIPTION
CLI Wall Prime WB is an acrylic polymerized, water based primer designed to provide sound base for wall coatings. CLI Wall Prime WB has good alkali resistance properties.

ADVANTAGES
- Easy to apply.
- Excellent hiding property
- Fast Drying
- Excellent coverage

APPLICATION
As a primer or base coat for subsequent application of top coat for exterior or interior finish.

APPLICATION METHODOLOGY
- Clean surface thoroughly and remove all foreign material, including oil and grease.
- Remove laitance with a wire-brush.
- For previously painted surface, ensure all peeled off or flaked paint is removed.
- Dust down the entire surface.
- Dilute CLI Wall Prime WB with fresh water at the ratio 1:1.
- Apply uniform coat of CLI Wall Prime WB with brush, roller or by spraying.
- Do not apply CLI Wall Prime WB when humidity is over 95% or when ambient temperature is not above 3 ^{O}C of dew point.

CHARACTERSTICS

Colour	White
Drying Time, hr	2
Specific Gravity @ 30 ^{O}C	1.35 – 1.39
Theoretical coverage, m^2/ L (1:1 dilution with water) *	8 - 10
Flash Point, ^{O}C	Non flammable
Solid content, %	56 - 58
Viscosity, cP	16000 - 18000
DFT micron	30

HEALTH & SAFETY
- Use goggles and hand gloves during application.
- Clean hands with warm soap water after application.
- Dispose empty container as per local rules.

PACKING
Available in 4 L, 20 L and 200 L container.

STORAGE AND SHELF LIFE
Keep in a cool and dry place under shed away from heat. The shelf life of product is 12 Months in original unopened sealed condition.

CONDITIONS OF SALE
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CLI WP 30

Single component PU Primer

DESCRIPTION
CLI WP 30 is a Single component polyurethane based primer.

ADVANTAGES
- Better adhesion and flexibility.
- Chemical resistance.
- Highly penetrative in concrete surface.

APPLICATION
- Concrete / metal surfaces.

APPLICATION METHODOLOGY
- Clean surface by oil free compressed air, sandblasting, wire brushes or other mechanical means to ensure removal of all rust, oil, grease, dirt, or any other loose particle prior to application of primer.
- Ensure that the surface is moisture free before application.
- Apply CLI WP 30 on cleaned and dried surface by brush or airless spray

CHARACTERSTICS

Pot Life @30 OC, hrs	5 - 6
Surface dry ,@ 30 ^{O}C, RH 55%	25 - 35 minute
Aspect	Light brown, clear liquid
DFT in microns	< 50 microns
Recoating time, hrs	24 Max
Theoretical Coverage m^2 / L	8 -1 0

HEALTH & SAFETY
- Do not allow CLI WP 30 to come in contact with the skin and eyes, or be swallowed.
- Wear suitable protective clothing, gloves and eye protection.
- In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.
- If swallowed seek medical attention immediately - do not induce vomiting. In case of fire use dry chemical or carbon dioxide extinguishers.

PACKING
Available in 20 L container.

STORAGE AND SHELF LIFE
Keep in a cool and dry place under shed away from heat. The shelf life of product is 9 Months in original unopened sealed condition.

CONDITIONS OF SALE
Sold subject to the Company's conditions of sale which are available on request.

NOTE
The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

CRETE BOND (ECO)

High Performance Polymer Additive For Cement and Concrete Mixes

FEATURES
High Performance Polymer Additive for Cement and Concrete Mixes
Water resistant - used as a temporary waterproofing sealer on rooftops
High strength - ideal for patching, can be feathered out with minimal cracks
Non-toxic - Does not cause Occupational Health & Safety concerns

DESCRIPTION
Crete Bond (ECO) is SBR, multipurpose, concentrated, liquid polymer additive which when used with sand/cement, greatly improves the bond strength and flexibility. Being water resistant, Crete Bond (ECO) mixed with cement can be used as a water proofing sealer. It can also be used as an admix for renders/screeds importing high bond strength and flexibility. Crete Bond (ECO) can be applied to damp surfaces (not wet) and can be rendered or painted over.

FEATURES / BENEFITS
- Water resistant: can be used as a temporary waterproofing sealer on rooftops etc.
- High strength: ideal for use in patching mortars as it can be feathered out with minimal cracks, and also for use in coving areas.
- Non-toxic: does not cause occupational Health & Safety concerns.
- Reduce the cement : water ratio, which results in a stronger mortar/screed.

TYPICAL APPLICATIONS
- As a temporary waterproofing sealer in high exposure areas such as rooftops, While new waterproofing membrane is being installed. When used under sheet membranes, it limits gassing.
- As a slurry coat prior to applying renders or toppings.
- As an admix for sand/cement mixes especially in repair mortars, fillets, covings, renders and screeds.
- As a bonding bridge for new to old concrete.

LIMITATIONS
- Do not use Crete Bond Eco mortar to tile over concrete slabs subject to rising damp or hydrostatic pressure without first priming with CLI AT 108 Water based epoxy membrane in two coats at a coverage rate of 3 square metres per litre per coat. Refer to the CLI AT 108 Water based epoxy membrane data sheet for screed installation details.
- Protect Crete Bond Eco liquid from frost - do not allow to freeze.
- Do not apply Crete Bond Eco as a temporary waterproofing sealer if rain is imminent.
- Do not apply if the surface temperature is below 10°C or above 35°C.

BASIC APPLICATIONS INSTRUCTIONS
Surface Preparation
The surface to be treated should be clean, sound, free from oil, grease, laitance etc. New concrete should be allowed to cure for at least 28 days prior to application of Crete Bond (ECO) water resistant or binder coat. New brickwork walls, sand/cement render or screeds should be left for at least 7 days before application of the Crete Bond (ECO) water resistant or binder coat.

MIXING
Temporary Waterproofing : 1 part Crete Bond (ECO) : 2 parts cement, (by volume).

Admix for render / screed / coving : Mix 1 Part Crete Bond (ECO) with 3 parts water and use as the gauging mix (mixing water) with a 3 : 1 or 4 : 1 sand / cement mix.
Binder coat : 1 part Crete Bond Eco : 1 part water : 4 parts cement (by volume).

APPLICATION
Temporary Waterproof
MIX Crete Bond (ECO) with fine cement to a lump free consistency. Pre-moisten the concrete then apply a first coat using a brush or roller to achieve 1 mm wet bed thickness. Allow first coat to set, then apply second coat at right angles to the first application to ensure no pin-holing occurs.

Slurry Coat
Mix to a thin binder and spread the mix over the surface with brush or roller, or small broom. Maximum thickness recommended is 2mm. While the binder coat is still wet, apply render or screed over it.

Render / Coving
Apply binder coat on the prepared surface. While the binder coat is wet apply the Crete Bond (ECO) mortar mix with a wood float trowel, ensuring firm pressure on the trowel to work the render into good contact with the surface.

Screed
A minimum thickness of 15mm is recommended when using diluted Crete Bond (ECO) instead of water. For a thickness greater than 40mm, reinforcing mesh is required.

Using a roller, brush or a flat trowel, coat the prepared area with a binder coat of Crete Bond (ECO) to improve adhesion to the substrate.

Apply the screed mix whilst the binder coat is still wet using a straight edge, trowel or timber batten to level the screed. Achieve falls in shower recesses to a minimum 1:60: internal wet areas (eg bathrooms) to a minimum of 1:80: and external areas to a minimum of 1:100.

Screeds should be left with a wood float finish to create a key for tiling and waterproofing. When reinforcing the screed with mesh, apply first layer of screed, lay in the mesh and apply the second layer of the screed. Do not lay the mesh directly onto the substrate.

DRYING TIME
Approximately 16 hours (overnight) at 23°C and 50% relative humidity when used for water resistant or render/screed.

CLEANING
Clean tools with water before the mortar dries.

PACK SIZE
20 Litres

COVERAGE

Temporary Waterproofing 20 litres covers	12m² (2 coats at 1mm/coat)²
Slurry coat	1 litre cover 3m²
As a render (15mm thick)	1 litre cover 2m²

TECHNICAL DATA

Form	Thin, white liquid
Specific Gravity	1.0 kg/litre
pH	9 - 10
Tensile adhesion over concrete (7 days)	1.5 Mpa
Hydrostatic pressure resistance	50 psi (0.34MPa)
Flexural strength As additive to screed	3.3MPa
VOC Content	32 g/L

SAFETY DATA
Crete Bond (ECO) is non-hazardous and non-dangerous goods. Do not breathe gas/fumes/vapour/ spray. Avoid contact with skin. Wear eye/face protection. In case of contact with eyes, rinse with plenty of water and seek medical advice. When used with mortar (which is alkaline) skin contact should be avoided. Wear gloves and protective clothing.

STORAGE AND SHELF LIFE
Shelf life is approx. 12 months when stored in the original unopened packaging in a dry place at 30°C and 50% relative humidity. Protect liquid from frost, do not allow to freeze.

DISCLAIMER
The technical details recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Standard, our instructions and recommendations are only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program.

The supply of our products and services are also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request you should make yourself familiar with them.

Elastobond BTD

1K Elastomeric Modified Polyurethane Liquid Membrane

DESCRIPTION

Elastobond BTD is high performance, water based, cold applied, single component elastomeric in-situ coating. Elastobond BTD is UV resistant. This unique system is ready to use PU modified emulsion. It complies with ASTM C-836.

ADVANTAGES

- User friendly, Non-toxic, Green product.
- Better elongation.
- Better flexibility than TarFelt LM.
- Can be applied on moist surface also.
- Excellent water vapour barrier.
- Ideal for waterproofing of terrace / roof garden / industrial floors.

APPLICATION

- Roof / Terrace including corrugated roofs and difficult geometrical shapes like domes.
- Podium.
- Car parking.

APPLICATION METHODOLOGY

- Remove dust, flakes, or other foreign particles by jet or dry air and clean the surface mechanically or by grinding to make it smooth before application.
- Prime the surface with the mixture of Elastobond BTD and water in 50 : 50 ratio and apply @ 400 gms / m2
- Allow it to dry completely. Slightly damp surface will help coating.
- Apply Elastobond BTD by brush or roller on primed surface @ 1 kg / m^2 as first coat.
- Spread polyester fleece / 50 gsm non-woven Geo Textile over the first coat with 50 mm overlap in both directions.
- Allow the first coat to dry with polyester fleece / non-woven 50 gsm Geo Textile on top.
- Apply second coat of Elastobond BTD @ 1 kg / m^2 or as required to get thickness of 1.5 mm.
- Do not apply if rain is expected within 24 hours.

CHARACTERSTICS

Appearance of dry film	White / Grey / Green / Black
pH	Alkaline
Specific Gravity @ 30 ^{O}C	1.35 ± 0.01
Theoretical Coverage @ 1.2 mm DFT	2.20 kg/m^2
Elongation, %	> 500
Water Absorption, %	0.5 – 0.8
Drying Time, minute @ 27 ^{O}C, 55% RH	40-50 for each coat depending on climate
UV Resistance	Good
Instant Hardness (Shore A)	35-40
Elastic Recovery @ 150% elongation, %	70-75
Temperature Resistant, ^{O}C	- 20 to + 100
Application Temperature, ^{O}C	< 5

HEALTH & SAFETY

- Use mask, nose cover and hand gloves during application.
- Clean hands with soap water after application.

PACKING

Available in 25 kg and 250 kg pack.

STORAGE AND SHELF LIFE

Keep in a cool and dry place under shed away from heat. The shelf life of product is 9 Months in original unopened sealed condition.

CONDITIONS OF SALE
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NOTE
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Construction Chemical Manufacturing Brand

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