

LEAKSEAL® CemLastic

Polymer modified, fibre reinforced, flexible cementitious waterproofing slurry

A two component, polymer modified, fibre reinforced, flexible cementitious waterproofing slurry with a good balance of tensile strength and elongation.

Intended Uses:

LEAKSEAL® CemLastic is intended as a waterproofing slurry on cementitious substrates, renders, brickwork and blockwork in both immersion and exposed conditions.

- Waterproofing under tiles in showers, on balconies, terraces or in swimming pools.
- Waterproofing of flat concrete roofs or gutters.
- Lining of fishponds, dams, pools, reservoirs, concrete piping, bridges, and canals.
- On interior and exterior walls for damp proofing, will resist negative and positive water pressure.
- Waterproofing and protection of outer walls, retaining walls to be buried into the ground.
- Sealing fine hairlines cracks in concrete structures (not subject to movement).
- Waterproofing of weather exposed surfaces.
- Protective, flexible anti-carbonation coating of concrete surface.
- Waterproofing of plasterboard or drywalls, lightweight cement blocks or marine grade plywood.
- Waterproofing & protection of concrete surfaces that may come into contact with seawater, de-icing salts, such as sodium or calcium chloride, and sulphates.
- Waterproofing of basements, tunnels or concrete floors.

It is possible to apply to damp masonry/cementitious substrates in good condition; and can also be applied on existing coverings & is compatible with ceramic, mosaic, and natural stone coverings.

LEAKSEAL® CemLastic will provide a long service life even in areas where difficult climatic conditions are present, coastal areas with a saline rich atmosphere or industrial areas where the air is polluted.

Features & Benefit:

- Fast Drying.
- Self-priming.
- Oil resistant.
- Renders leaking surfaces waterproof in two applications.
- Waterproofs structures from positive and negative water pressure.
- Resists water pressure up to 5 bar.
- Will bridge cracks up to 1.2 mm.
- Seals walls with rising damp, moisture & leaks.
- Non-toxic to fish when fully cured.
- Dries hard in 24hrs – full cure 7 days.
- Over paintable with conventional flexible acrylic, polyurethane & polyurea coatings.
- Non-corrosive to steel or iron.
- Highly flexible. Will remain flexible even at very low temperatures of -20°C.
- Complies with the WRAS approval for drinking water.
- Protects concrete surfaces from CO₂ penetration (carbonation).
- Excellent workability & easy application on vertical surfaces.
- Excellent tensile strength.
- Exceptionally good adhesion to substrate.

Technical Data:

Colour/Appearance	Grey
Mass Solids	85.4%
Volume Solids	73.1%
Density	2.675 Kg/ litre (Powder) 0.986 Kg / litre (Liquid) 2.050 Kg /litre (Mixed)
Mix Ratio (Weight)	2 Parts Powder – 1 Part Liquid
Pack Size	30 Kg (20 Kg Powder + 10 Kg Liquid)
Typical Film Thickness	2.0 – 4.0mm depending on application (max 4mm per coat)
Theoretical Coverage	2.1 kg /m ² /mm
Method of Application	Trowel, cement spraying equipment, block brush or roller
Additional Reinforcing	• LEAKSEAL® Glass Fibre Net (150 – 160g/m ²) for highly stressed areas. • LEAKSEAL® Sealing Membrane (Tiling applications)
Number of Coats	2
Temperature Resistance	Dry continuous - 60°C Wet Continuous - 55°C Requirements – EN 14891-2007

Performance In Potable Water:

LEAKSEAL® CemLastic liquid complies with the WRAS approval for drinking water. The raw materials have been tested for WRAS compliancy and passed the approval for drinking water.

- Tested at high temperature of 55°C.
- Appearance of test water (colour and turbidity).
- Cytotoxicity – extraction of substances harmful to health.
- Microbial growth – growth of aquatic micro-organisms.
- Extraction of metals – leach of metal particles.
- Odour and flavour – does it taint drinking water?

Requirements For Cementitious Waterproofing Liquid Membranes (EN 14891 – 2007)	
Unreinforced Characteristics:	
Initial (dry) Tensile Adhesion	≥ 0.5 N/mm ²
Wet Adhesion	≥ 0.5 N/mm ²
Heat Ageing Adhesion	≥ 0.5 N/mm ²
Freeze / Thaw Adhesion	≥ 0.5 N/mm ²
Adhesion After Contact with Lime Water	≥ 0.5 N/mm ²
Water Tightness (7d @ 150 kPa = 1.5 bar)	Watertight
Crack Bridging Under Standard Conditions	≥ 0.75 N/mm
Reinforced Characteristics:	
Adhesion After Contact with Chlorine Water	≥ 0.5 N/mm ²
Crack Bridging at Low Temperatures (-5°C)	≥ 0.75 mm
Crack Bridging at Low Temperatures (-20°C)	≥ 0.75 mm
Water tightness (7d @ 150 kPa = 5 bar)	Watertight
Crack Bridging Under Standard Conditions	≥ 1.2 mm

Waterproofing: Liquid Waterproofing Coatings

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The Power of Fibre Reinforcing:

LEAKSEAL® CemLastic contains a natural cellulose fibre that provides extra technical advantages and gives you the applicator the edge when it comes time for application!

- Improved adhesion to substrate & prevention of slipping when applying to upright areas.
- Improved ability to apply a thicker layer initially without mud cracking.
- Reduced cracking while drying and quicker thorough drying of the total blend.
- Excellent dimensional stability with lower shrinkage ratio of the end product.
- Less stickiness to working tools.
- High physical water absorption & retention.
- Structural viscosity by formation of a fibre network.
- Reinforcing 3D fibre network in the final mix.
- Better performance in drastic conditions under outdoor exposure, for instance wind, freeze thaw cycles & heat absorbent substrates.

Drying Information:

	10°C	20°C	25°C	40°C	50°C
Touch Dry	-	-	2 hrs	-	-
Hard Dry	-	-	24 hrs	-	-
Curing Time For Immersion, Tiling & Coating (2 Days @ 25°C)					
Overcoating Data – See Limitations					
Substrate Temp.	10°C	20°C	25°C	40°C	50°C
Minimum	-	-	48 hrs	-	-
Maximum	-	-	Extended*	-	-

Note:

* See additional information – Definitions & Abbreviations

Surface Preparation:

For correct waterproofing in tanks, pools, ponds, or roof applications the corners between the horizontal and vertical areas should be filleted/coved prior to application using coving mortars.

Concrete Structures/Floors & Pre-Cast Units

The substrate must be prepared by suitable mechanical preparation techniques such as high-pressure water blasting, abrasive blasting cleaning or grinding to remove weak, friable layers or existing coatings. Avoid excessive impact or vibration which may destroy the surface. Generally, no primer is needed on concrete surfaces after mechanical preparation.

Damaged, delaminated, or weak concrete must be repaired using REPAIR Cement Mortar or REPAIR Cement Mortar Flexi. Ensure there are no trace of powder, grease, oil, and form release agents before application. Surfaces must be sound & clean!

Any setting cracks, cracks caused by plastic or hygroscopic shrinkage in cementitious screeds must be filled beforehand using REPAIR Cement Mortar or REPAIR Cement Mortar Flexi.

Existing Floors

Ensure the existing floor & coverings in ceramic, porcelain tiles, clinker or terracotta etc. is well bonded to the substrate and free of substances that could compromise adhesion, such as grease, oil, wax & paint etc. Use a mixture of water and 30% caustic soda to remove any material that could cause adhesion problems, then thoroughly rinse the floor with clean water to eliminate all traces of caustic soda.

Existing ceramic tiles should be grinded/abraded to create a mechanical key.

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Cementitious Renders

Cementitious renders must be properly cured (7 days per mm in good weather conditions), well bonded to the substrate, resistant & free from all dust & paint. Dampen absorbent surfaces before application with water.

Application:

Mixing	Comp. A (Powder) is supplied in a plastic bag. Comp. B (Liquid) is supplied in a plastic jerry Can. 1. Shake Comp. B for 1 - 2 minutes & pour into an empty 20 Litre plastic container. 2. Slowly add entire contents of Comp. A powder while mixing at a low speed with electrical drill type mixer +/- 500rpm. 3. Carefully mix for a few minutes, ensure that no powder is stuck to the sides & bottom of the plastic container. 4. Mix for 4 - 5 minutes ensuring a lump free, smooth consistency. Notes: • Do not add any additional water or other ingredients. • Don't mix more than can be applied during product pot life. • Use a low-speed mechanical mixer to avoid too much air from entering the mix. • Not recommended to prepare mix by hand. • A mortar mixer may also be used, which is usually supplied with mortar sprayers. Ensure mix has no lumps before pouring into the hopper of the pump.
Pot Life	20 min @ 25°C
Thinner	Do not add additional water to the mix.
Application Method	Apply LEAKSEAL® CemLastic by means of a trowel, block brush or roller while exerting a good pressure. Apply the first coat with firm even pressure onto the substrate to obtain a consistent thickness. As soon as the first layer has hardened (after 4 – 5 hours), apply the second layer, taking care to achieve a uniform continuous layer which totally covers the first layer. When applying LEAKSEAL® CemLastic by spray, a spray gun with a lance fitting suitable for use with smoothing mortars must be used, at minimum thickness of 2mm per layer For areas where there are small cracks or areas that are under particular stress; LEAKSEAL® Glass Fibre Net can be embedded into the first wet layer to give additional dimensional stability. This is also recommended when waterproofing swimming pools, terraces & balconies. Drain holes can be easily sealed with our special range of water outlets. Good airflow is essential around the object once coated. Laying Ceramic Tiles Onto LEAKSEAL® 2K CemLastic After applying LEAKSEAL® 2K CemLastic, wait 5 days for curing before laying ceramic tiles. In favourable climatic conditions with good temperatures, this period may be reduced to 24 hours on dry substrates. On balconies, terraces & swimming pools; bond ceramic tiles in place using a C2 class cementitious adhesive & grout joints with a CG2 class cementitious product. Movement joints can be sealed with a special elastic sealant or a flexible reinforcement can be used, such as our LEAKSEAL® Sealing Membrane before

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	application of the ceramic tiles bonded with tile adhesive. LEAKSEAL® Sealing Membrane will provide extra strength, waterproofing and will need to be placed on top of the second coat of LEAKSEAL® CemLastic whilst wet and firmly flattened into mix to ensure bonding. Fishponds After application, 48 hours later, the pond should be high pressure cleaned and washed out to remove any traces of high alkalinity which may have an initial effect on the pH of the water. Ensure that the water is conditioned and stable before introducing your fish. If you are unsure about system compatibility, consult a Specialized Coating Systems technical representative for coating system solutions
Work Stoppage	Thoroughly flush all equipment with water. All unused material should be stored in tightly closed containers.
Clean Up	Due to high bonding strength of LEAKSEAL® 2K CemLastic, clean all equipment immediately after use with water. Dried material will need to be removed mechanically. It is good working practice to periodically flush out the spray equipment during the course of the working day. Frequency of cleaning will depend upon the amount sprayed, temperature and elapsed time, including delays.

Environment:

	Surface Temperature	Ambient Temperature	Relative Humidity
Minimum	5°C*	5°C	No lower limit
Maximum	35°C	35°C	85%

* Higher temperatures result in a reduced sag resistance and faster cure.

Limitations:

- Cement is highly alkaline in the wet state.
- Do not apply **LEAKSEAL® 2K CemLastic** at temperatures below +8°C.
- Protect from rain for 48 hours from application.
- Avoid application in direct sunlight and or strong winds.
- Avoid direct contained with chlorinated swimming pool water. Using AquaSport Epoxy or AquaSport Chlor rubber as a protective coating/lining.
- **LEAKSEAL® 2K CemLastic** is not a vapour barrier and may transmit vapour tension to over-applied coatings.
- Drying time is slowed by higher humid conditions.
- After application in especially dry, hot, or windy weather, it is recommended to protect the surface from rapid evaporation by covering it with sheets.
- Unmixed material (in closed containers) should be maintained in protected storage in accordance with information given in the STORAGE section of this data sheet.
- Technical and application data herein is for the purpose of establishing a general guideline of the coating application procedures.
- Test performance results were obtained in a controlled laboratory environment and Specialized Coating Systems makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary, due care should be exercised in the selection and verification of the performance and use of the coating

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Storage:

- Shelf Life: 12 months at 25°C – from date of manufacture (Subject to inspection thereafter).
- Store product both Comp. A. (Powder) & Comp. B (Liquid) in dry conditions out of direct sunlight away from source of heat or ignition.

Precautions:

- Comp. A (Powder), contains cement that when in contact with sweat or other body fluids can cause an irritant alkaline reaction and allergic reactions to those pre-disposed. It can also cause damage to eyes.
- Comp. B (Liquid) is not considered dangerous, however use protective gloves and goggles, and take usual precautions for the handling of chemicals. In case of contact with eyes or skin, wash out immediately with plenty of water and seek medical attention.

For complete safety & handling information, please refer to the appropriate Safety Data Sheet prior to using this product.