

DESCRIPTION

ARCACEM S2 is a cement based waterproofing system consisting of hydraulic binders (cement powder, aggregates and chemical additives) and resins in dispersion. This composition renders a flexible, non toxic, waterproof coating highly resistant to abrasion and erosion. Grey in colour, ARCACEM S2 is a semi-liquid product. This flexible waterproof coating can be applied to cement and concrete blocks and all civil engineering works horizontally, vertically or from underneath surfaces.

Easy to use by simply mixing the two pre-batched components provided, ARCACEM S2 provides an elastic waterproof coating which adheres perfectly to wet surfaces, cement and fresh mortar. ARCACEM S2 can be used with a reinforcing fibreglass mesh offering a resistance to counter pressure and cracking of up to 3mm.

Reinforced with a fibreglass mesh (weight 70g/m², mesh measuring 6x6mm) ARCACEM provides a waterproof coating highly resistant to water pressure and cracking.

SUBSTRATES

cement and concrete blocks, poured concrete, reinforce concrete, aerated concrete, traditional masonry, agglomerated masonry blocks, wood, tiling

BENEFITS

PROTECTION AND WATERPROOFING

• Ideal for waterproofing concrete or cement under tiling

- Swimming pools, basins, terraces
- Waterproofs under tiling on terraces, decks, balconies, patios
- Waterproofs wall to floor joints, tops of foundations
- Waterproofs tunnels, pits, galleries, collecting tanks
- Waterproofs parking structures
- Waterproofs swimming pools, drinkable water reservoirs (interior application)
- Protects old and new exterior masonry surfaces (above-grade, below-grade or in immersion)
- Protects cement works subject to salt such as parapets, bridge pilings, gutters, sidewalks, roadways, maritime quays, and all civil engineering works
- Protects exteriors of water tanks and agricultural silos
- Water Towers, Water Purification Plants

PRINCIPAL USES

ARCACEM S2 is designed to waterproof a wide variety of masonry and concrete substrates, providing long term resistance to water pressure (from the outside -in: basements, floor or terrace tiled surfaces, parapets etc) and from the inside-out (swimming pools, water reservoirs, tanks, etc.)

ARCACEM S2 is perfect for waterproofing bathrooms, showers, balconies, terraces, swimming pools, etc. before laying ceramic tile finishes.

It is used to PROTECT and WATERPROOF

- basements, cellars, below-grade construction
- pools, basins, ponds
- the top of foundation walls and garage walls
- parking lot structures
- masonry surfaces, above-grade, below-grade or immersed
- water reservoirs and agricultural silos
- tunnels, pits, galleries

Apply ARCACEM S2 underneath the bathroom floor and wall tiles to provide a tight water barrier which will keep water going out and coming in through walls and floors.



Note: Render the tiling water repellent and protect from water stains by applying **ARCAREPEL** on the tiled surface.



Apply ARCACEM S2 underneath the terrace, deck, patio or balcony tiling to provide a tight water barrier which will keep your terraces waterproof.

Note: The tiling (most ceramic tiles are porous) can then be rendered water repellent with **ARCABLOCK**.

TECHNICAL INFORMATION

Composition : pre-batched 2 component kit :
A : cement powder, aggregates and chemical additives
B : water borne resin in dispersion

Final Aspect : Semi-fluid

Colour : Powder : grey - Resin : milk white

Density : Powder : approximately 1.2

Resin : approximately 1

Drying time : Product obtains its maximum performance after 21 days of drying (80% at 7 days). Can be recoated after 8 hours
Light Foot Traffic admissible after 48 hours (at 20°C and 60% relative humidity)

Wait 14 days before filling water reservoirs

Limit application temperature : + 5°C to + 35°C

Limit Service temperature : - 20°C to + 80°C

Clean up : water

Adhesion : Strong adhesion to standard building materials

Resistance to compression : Superior to 25 MPa or 250 bars at 28 days, +20°C and 60% relative humidity

Resistance to pressure: 4 bars

Adhesion on cement : 1.8 MPa (>20°C)

Resistance to cracking at >23°C : ARCACEM S2 alone : 2mm.

ARCACEM S2 reinforced with fibreglass mesh : 3mm

Coefficient resistance to diffusion of water vapour: 480

Handling of mixture : Superior after 1 hour at 20°C

Water recovery after 8 days : 4.35 %

Contact with food : Will not alter the organoleptic quality of water

- Resistance :
- Very good resistance to UV,
 - Good resistance to atmospheric and chemical aggression
 - Very good resistance to demineralized chlorinated water with sulphate content
 - Good resistance to de-icing salts and marine water salt
 - Excellent performance under extreme temperature swings
 - Resistance to Freezing / Thawing.
 - Resists bending

Limitations:

Do not apply on a surface where running water is present.

Do not apply under hot direct sun (apply in the morning in the summer) or on a hot surface.

Do not apply ARCACEM S2 on frozen substrates or if freezing temperatures, strong winds or rain are forecast within 24 hours.

PACK SIZES

Kits of 2 components

-20 kg pail (14.7 kg powder + 5.3 kg resin).

-4 kg pail (2.95 kg powder + 1.05 kg resin).

INSTRUCTIONS FOR USE

SURFACE PREPARATION

The surface must be clean, sound, and free of loose or friable materials. Holes and cracks must be treated and the surface smoothed and levelled before applying ARCACEM S2.

Eliminate Surface laitance

Floors:

A surface coat of laitance 1 to 5mm thick often exists on flooring. When the foundation is poured, the water rises to the surface and the laitance can be several millimetres thick.

- Scrape off with a spatula
- Use a pressure washer (such as a Kärcher) 20 cm from the surface to open the pores of the cement and permit mineralization.

Walls:

Use a pressure washer (such as a Kärcher) 20 cm from the surface to open the pores of the cement and permit mineralization.

For use over tiling: Tiling should be rubbed raw through abrasion or sanding before applying ARCACEM S2.

For use on plaster: use primer such as ARCALATEX diluted 20% (plaster is not compatible with cement). Never glue tiling directly on plaster surfaces with a cementitious glue. Use a vinyl glue.

The surfaces must be wet down to guarantee good bonding of the product. Never apply ARCACEM S2 on a surface where running water is present.

Ask us for our documentation on how to waterproof and treat major leaks or see explanations on our website

- [Waterproofing cracks](#)
- [Waterproof Floor to Wall joints](#)
- [Treat major leaks before waterproofing](#)

FINISH

ARCACEM S2 can be covered with paint or tiling (using an adapted flexible tile adhesive).

PRODUCT PREPARATION

Pour the resin into a large container. Stir in the powder slowly and progressively, mixing with a low speed electric or pneumatic mixer to obtain a smooth homogenous liquid paste. Let sit a few minutes before applying.

APPLICATION

Apply with a smoothing trowel or brush. A brush application is recommended as it will create a massaging effect which will cause the product to penetrate the pores of the substrate and will not create bubbles.



To spray mechanically, use a low speed machine equipped with a nozzle 8mm in diameter (an air-powered machine similar to a Pultzmeister). Project the product in even coats (covering the whole surface without excess layering). Smooth with a trowel or brush to eliminate bubbles.

ARCACIM S2 is applied in 2 coats minimum.

Wet down the surface before application of the 1st coat. Note: The surface should be damp not running water wet. Treat all major leaks or excess water ingress prior to application. **Do not wet down between coats.**

Do not apply under hot direct sun (apply in the morning in the summer) or on a hot surface.

Let the 1st coat dry approximately 24 hours before applying the 2nd coat.

Drying time will vary depending on temperatures and climatic conditions (from 1 to 15 hours). In normal drying conditions (20°C), let dry 8 hours before applying the 2nd coat.

Waterproofing masonry (concrete base structures - cellars, basements) subject to water pressure from the outside-in.

On a damp but not excessively wet surface, apply ARCACEM S2 in 2 coats. 1st coat: 2 kg per m² or 2.5kg per m² if using the reinforcing fibreglass mesh. 2nd coat: 1.5kg per m²

Waterproofing inner concrete shells or precast elements

1st coat: 2.5kg per m² In this case, usage of the reinforcing fibreglass mesh must be applied between the 2 coats. 2nd coat: 1.5 to 2kg per m²

Waterproofing terraces, balconies, decks, patios or underneath bathroom tiled floors and walls on reinforced concrete, concrete blocks, floors where under floor heating is present:

apply ARCACEM S2 in 2 coats. 1st coat: 2.5kg per m² The reinforcing fibreglass mesh must be used between the 2 coats. 2nd coat: 1.5kg per m² Use a flexible tile adhesive adapted to the application.

Waterproofing a surface not covered with tiling

Balconies and terraces: Wet down to obtain a damp surface (not running water wet). A slight slope (2 to 5%) is recommended. Foot traffic will be possible within 3 days (drying at 20°C with favourable weather conditions). Apply ARCACEM S2 in 2 coats. 1st coat: 2.5kg per m². The reinforcing fibreglass mesh must be used between the 2 coats. 2nd coat: 1.5kg per m². Once the ARCACEM S2 has been applied, we highly recommend applying a water repellent treatment such as **ARCABLOCK**.

Waterproofing swimming pools

Old paint must be thoroughly stripped and removed. The surface must be wet down to make it damp before application. 1st coat: 2.5kg per m² The reinforcing fibreglass mesh must be used between the 2 coats. 2nd coat: 1.5kg to 2kg per m². Tiling may be applied around the pool to obtain the colour reflection desired (green, blue or other) using a flexible tile adhesive for tiling.

Recommendations

Always apply the 1st coat on a damp surface (not running water wet) in the shade (not under direct hot sun). Wait 14 days before putting water into the swimming pool. Rinse the ARCACEM S2 surface with a pressure washer. Verify the pH and correct if necessary to obtain the recommended pH level. Never use copper based anti-algae products (which will leave green staining). The ARCACEM S2 system must only be used where water has a hydrometric classification as TH or hard cloth. Never use in a swimming pool filled with aggressive soft water.

Clean up

water

COVERAGE

will vary according to the substrate and use.

1st coat: 2kg per m² or 2.5kg per m² if reinforcing mesh is used
2nd coat: 1.5kg per m². Total coverage to waterproof: 3.5kg to 4kg per m²
3rd coat: reinforcing coat: approximately 1.5kg per m² for a total coverage of 4.5 to 5kg per m²

DRYING TIME

Drying time will vary depending on temperatures and climatic conditions. Follow the instructions indicated above and depending on the type of waterproofing desired.

Storage

Will keep 1 year in unopened original packaging. Store in unopened containers in a clean, dry area. Keep material from freezing.