

# ACRIFLEX PRO

Water-based monocomponent resistant to water stagnation.

Ready-to-use, aqueous emulsion waterproofing liquid, based on latest generation elastomeric resins and nanotechnology charges. The product maintains its performance characteristics, stays flexible even at low temperatures and is also suitable for encapsulation of cement-asbestos (*Eternit*) according to current regulations. Available in various colours, it can be left exposed.

## BENEFITS

- Formulated with acrylic polymers that combine high water resistance with excellent mechanical performance.
- Flexible at low temperatures, up to -25 °C (-13 °F).
- Tiles can be attached directly to *Acriflex Pro*, in accordance with EN 14891.
- The product is ETAG005 certified.
- Provides waterproofing with small thicknesses.
- It can be left exposed, and it is walkable for normal maintenance.
- It creates a continuous layer without joints, and it also adapts to complex support geometries.
- Resistant to UV rays, atmospheric agents, industrial environments and seaside areas.
- Excellent consolidation and attachment ability of asbestos fibres.
- Normal activities can be carried out inside the building during the remediation phase.
- Ready-to-use, easy and quick to apply.
- Solvent free product.

## YIELD

2,0 kg/m<sup>2</sup> (0.41 lb/ft<sup>2</sup>) in 2 coats if used as waterproofing.

1,0 kg/m<sup>2</sup> (0.21 lb/ft<sup>2</sup>) in 2 coats for asbestos encapsulation.

## COLOUR

White and grey.

## PACKAGING

20 kg (44.09 lb) plastic bucket.

Pallet: 48 buckets (960 kg – 2116.44 lb).

## APPLICATION FIELDS

*Acriflex Pro* is suitable for waterproofing flat or inclined concrete sheds, roofs, terraces, balconies, flashings, eaves, cornices, chimneys, foundation walls, fibrocement slabs, and also for indoor environments such as bathrooms, shower cubicles, kitchens and wet areas. The product is also suitable for waterproofing and restoration of smooth bituminous or slated membranes in combination with the *SBS-bond* primer (see technical data sheet) in relation to the condition of the membrane itself. *Acriflex Pro* can be applied on existing floors or metal surfaces in combination with the product *Grip Primer* (see technical data sheet). *Acriflex Pro* is also suitable for waterproofing wooden surfaces, and for the encapsulation of asbestos according to art. 2 of D.M. 20/08/1999 and s.m.i. and UNI 10686. Specifically, for the encapsulation of:

- **type A** - outdoor;
- **type B** - visible for indoor use;
- **type C** - not visible.

## STORAGE

The product must be stored in its original containers well closed, in well ventilated areas, away from sunlight, water and ice, at temperature between +5°C (41°F) and +35°C (95°F). Storage time: 12 months.



## WATERPROOFING - liquids

Whereas all indications and recommendations supplied herein are stated to the best of our experience and knowledge, they should be considered as indicative only and should be confirmed by exhaustive practical applications. Diasen doesn't know the peculiarity of the processing, or the characteristics of the support. Therefore the applicator should carry out preliminary tests, in order to verify the suitability to the foreseen application, and in any case he will take the responsibility of the intended use. In case of uncertainties or doubts, please contact the company's technical department, provided that this is only a simple assistance for the applicator: he should have the appropriate capabilities and experience in order to determine the more suitable solution. Always respect the latest update of the technical sheet available on [www.diasen.com](http://www.diasen.com).

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## PREPARATION OF SUPPORT

The substrate must be completely hardened and have sufficient strength. The surface must be thoroughly cleaned, dry, free of oils, fats, brittle and inconsistent parts or other materials which may affect the adhesion of the product. In cases where the surface is generally friable, it shall be fully discharged until good support is obtained and lesions or degraded parts with suitable mortar restored. Any moisture present in the support and the vapour produced by irradiation may affect the adhesion of the products applied. In case of hydro-cleaning, wait for the complete drying of the support.

### Concrete

In the case of newly built concrete bottom, it must be sufficiently cured.

If any injury, hole or irregular area is presents, restore it with suitable cement mortar.

For a better adhesion on smooth, non-wet concrete it is recommended the use of *Grip Primer* (see technical data sheet).

On moist supports, in order to avoid blistering or detachment phenomena, use *Vapostop* (see technical data sheet) as a primer. If the support is subject to rising humidity, it is necessary to use *WATstop* (see technical data sheet). *WATstop* can also be used to fill small cracks. On rough concrete use *Vapostop* (see technical data sheet) as primer.

### Bituminous or slated membrane

Verify that the membrane has been applied at least 6 months earlier, the to avoid detachments caused by the release of oils. Make sure that the overflights are well attached, in case of detachments, strengthen them with hot systems. Restore any cuts or holes, if present. Carefully clean the sheath by removing any paints or protective layers that are not well adhered. Design the installation of special ventilation chimneys suitably dislocated on the membrane, according to the humidity of the background. This step is essential whenever there is the presence of very absorbent supports retaining moisture, such as screed lightened with polystyrene or expanded clay. The conduits must be primed with

the product *SBS-bond* (see technical data sheet). In case of damaged membrane, restore it with a sandwich-type system (*Acriflex Pro* + *Polites TNT* + *Acriflex Pro*) after priming the surface. The sandwich system shall be used at the overflows and points where the membrane is most stressed.

### Smooth or tiled surfaces

Ensure that the tiles are well attached to the support otherwise remove them and restore them with suitable cement mortar. The tiled surface must not contain traces of release substances such as fats, waxes, oils, chemicals, etc. After thoroughly cleaning the support, the surface must be treated with *Grip Primer* (see technical data sheet). To fill the joints between the tiles and create a perfectly levelled surface, apply *WATstop* (see technical data sheet). *WATstop* should also be used if the support is moist or affected by rising humidity. Given the wide variety of tiles on the market, it is recommended to perform a test to verify the perfect adhesion of the system.

### Metal

Thoroughly clean the surface eliminating dirt, and any paints not well adhered. Before proceeding with the application of *Acriflex Pro*, prime the metal surfaces with *Grip Primer* (see technical data sheet). If the metal surface is painted, it is recommended to perform a test to verify the perfect adhesion of the system.

### Wood

Carefully clean the surface by removing dust, crumbly parts and detaching flakes. The wood must be completely dry, well cohesive and dimensionally stable. On untreated wooden supports proceed with direct application of the product. In other cases, carry out a preliminary test to verify adhesion. On boards, beads or supports with a high number of joints, strengthen *Acriflex Pro* with a sandwich-type system (*Acriflex Pro* + *Polites TNT* + *Acriflex Pro*). For media not present in the technical sheet, contact the technical office Diasen.

## WATERPROOFING - liquids

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## Treatment of expansion joints

Before proceeding with the waterproofing operation, it is necessary to predispose special expansion joints at regular intervals. This type of joints subdivide the screed surface into smaller dimensions surfaces of that allow differential movements caused by variations in environmental conditions and by phenomena related to the maturation of concrete. The joints must be executed to rule of art to avoid water infiltration. It will be the responsibility of the designer to evaluate the size of the areas, and the methods of realization of the joints according to the conditions of the support. The joints must be filled with the polyurethane sealant *Diaseal Strong* (see technical data sheet)

In the corner wall-floor, use *Diaseal Strong* to create a continuous curved surface. After the complete drying of the sealant, the conjunctions shall be waterproofed with *Safety Joint Roll* (see technical data sheet) impregnated with *Acriflex Pro*, applied with a brush creating a rounded angle. All those points of contact with the thresholds of doors and windows should also be treated with *Diaseal Strong* sealant.

## MIXING

*Acriflex Pro* is ready to use. Before application it is recommended to mix it to make the product homogeneous. In extremely hot weather conditions it is possible to add 5% clean water and continue mixing. Do not add other substances to the product.

## APPLICATION

1. Wait for the complete drying of the primer used, then apply a first layer of *Acriflex Pro* with roller, smooth steel spatula, water squeegee, airless or brush.
2. Once the first layer has dried, apply a second one to cross covering the surface. In case of rain on product not perfectly dry, carefully check the suitability for the next coating.
3. Proceed with the application in successive layers until the expected yield and a minimum total thickness of 1.5 mm is reached, thus ensuring waterproofing.

## WATERPROOFING - liquids

4. After drying, *Acriflex Pro* can be covered with tiles. Attach the tiles to *Acriflex Pro* with a C2 class cement adhesive or one at superior class, with improved performance. Before laying the tiles wait about 48 hours (at 23 °C / +73.4°F and 50% relative humidity).

## Asbestos encapsulating system

All operations of the encapsulating cycle must be carried out in compliance with current regulations.

1. To impregnate the surface, apply an *Acriflex Primer* coat, by roll or airless (see technical data sheet).
2. Once the primer is completely dry, apply a first coat of *Acriflex Pro* by roll, airless, brush or water squeegee. In case of rain, please verify the effective drying of the product before moving to the next coat.
3. Apply a second coat with the same method, crossing the coats and taking care to completely cover the entire surface. In order to ensure a total coverage of the support, apply two layers of contrasting coloured paints.

Depending upon to the type of intervention, thicknesses required by current legislation must be achieved:

- Type **A** - average total thickness = 0,3 mm; minimum thickness = 0,25 mm.
- Type **B** - average total thickness = 0,25 mm; minimum thickness = 0,20 mm.
- Type **C** - average total thickness = 0,20 mm; minimum thickness = 0,20 mm.

## DRYING TIME

At 23°C / +73.4°F and 50% relative humidity, the product completely dries in about 4 hours.

- The drying times are influenced by the relative humidity of the environment, the temperature and may vary also in a significant way.
- If applied in higher yields than expected, the drying time could significantly increase.
- When *Acriflex Pro* is dry, it can be left exposed, or can be made for pedestrians or nonslip by applying *Floorgum Paint* (see technical data sheet).

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## SUGGESTIONS

- In the asbestos encapsulation cycle, the appearance on the surface of the first colour applied makes it necessary to put on a new homogeneous layer of the last colour used in the encapsulating cycle.
- Do not apply with environmental temperatures or support temperatures lower than +5°C (+41°F) and higher than +35°C (+95°F).
- During summer season apply the product in the cooler hours of the day.
- Do not apply with imminent threat of rain or frost, with dense fog condition or relative humidity of 70% or more.

- Protect the product from pouring rain until it is completely dry.
- Before applying the product, is recommended to cover every element that must not be treated.

## CLEANING

The equipment used can be washed with water before curing the product.

## SAFETY

During handling, always use personal protective equipment and follow the product safety data sheet.

## Technical data\*

Features		Unit
Yield	2.0 kg/m <sup>2</sup> in 2 coats if used as waterproofing 1.0 kg/m <sup>2</sup> in 2 coats if used for asbestos encapsulation	kg/m <sup>2</sup>
	0.41 lb/ft <sup>2</sup> in 2 coats if used as waterproofing. 0.41 lb/ft <sup>2</sup> in 2 coats if used as waterproofing	lb/ft <sup>2</sup>
Aspect	semi - dense	-
Colour	white and grey	-
Dilution	5% of clean water if necessary	-
Minimum thickness of fresh product	1.5	mm
Waiting time between 1 <sup>st</sup> and 2 <sup>nd</sup> coat (T = +23°C / +73.4°F; R.H. 50%)	4	hours
Application temperature	+5 /+35 +41/+95	°C °F
Drying time (T = +23°C / +73.4°F; R.H. 50%)	4	hours
Storage	12	months
Packaging	20 kg plastic buckets	kg

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\* 1680 of weathering test are equal to about 10 years. This equivalence is merely indicative and it may change according to climate conditions of the place where the product will be applied. The above data, even if carried out according to regulated tests are indicative and they may change when specific site conditions vary.

Final performances		Unit	Regulation	Result
Water impermeability	Test passed	-	EOTA TR 003 EN 14891	waterproof
Flexibility at low temperature	- 25	°C	-	-
Break elongation	200 ± 10	%	ISO 527-1	-
Load resistance	1.5 ± 0.5	MPa = N/mm <sup>2</sup>	ISO 527-1	-
	217.56 ± 72.52	lbf/in <sup>2</sup>		
Adhesion test for direct traction on concrete	0.5	N/mm <sup>2</sup>	EN 1542	break type A/B
	72.52	lbf/in <sup>2</sup>		
Weathering Test	1680 hours (10 years*)	hours / years	EN ISO 11507	resistant
Viscosity at 23°C / 73.4°F	18000 ± 5000	cPs	EN ISO 2555	-
Dry extract	72 ± 2	%	EN ISO 3251	-

## Indoor Air Quality (AIQ) Certification

### Evaluation of the results

Regulation or protocol	Version of regulation or protocol	Conclusion
French VOC Regulation	Decree of March 2011 (DEVL1101903D) and Arrêté of April 2011 (DEVL1104875A) modified in February 2012 DEVL1133129A)	
French CMR components	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)	Pass
Italian CAM Edilizia	Decree 11 October 2017 (GU n.259 del 6-11-2017)	Pass
AgBB/ABG	Anforderungen an bauliche Anlagen bezüglich des Gesundheitsschutzes, ABG May 2019, AgBB August 2018	Pass
Belgian Regulation EMICODE	Royal decree of May 2014 (C-2014/24239) April 2020	Pass EC 1 PLUS
Indoor Air Comfort®	Indoor Air Comfort 7.0 of May 2020	Pass
Indoor Air Comfort GOLD®	Indoor Air Comfort GOLD 7.0 of May 2020	Pass
Blue Angel (DE-UZ 113)	DE-UZ 113 for "Low-Emission Floor Covering Adhesives and other Installation Materials" (Version January 2019)	Pass
BREEAM International BREEAM® NOR	BREEAM International New Construction v2.0 (2016) BREEAM-NOR New Construction v1.2 (2019)	Exemplary Level Pass
LEED®	"Low-Emitting Material" according to the requirements of LEED v4.1	Pass
CDPH	Classroom scenario	CDPH/EHLB/Standard Method V1.2. (January 2017)
	Office scenario	CDPH/EHLB/Standard Method V1.2. (January 2017)



**WATERPROOFING** - liquids