

# LEYCOPLAST®-AC

## CEMENTITIOUS & PVC FLEXIBLE WATERPROOF MEMBRANE FOR BOTH PRESSURE OR NON-PRESSURE FACED WATERPROOFING OF CONCRETE AND MASONRY

### DESCRIPTION

LEYCOPLAST® AC is an acrylic/pvc modified cementitious coating that requires only on-site mixing of the two pre-packed components to form the ideal product to waterproof, resurface and protect building surfaces as it provides a non-ageing, hardwearing, seamless, cold applied waterproofing membrane for concrete, bituminous membranes, roofing felt, metal, plastic, wood, building board and most other construction materials. It is suitable for application to both vertical and horizontal surfaces, either to the pressure or non-pressure faces of the substrate. LEYCOPLAST® AC provides an effective barrier to dissolved salts and atmospheric gases. Even in sewage areas and areas exposed to UV-radiation, ozone and chemical reactions, LEYCOPLAST® AC forms non-ageing, flexible and durable waterproofing membrane. It is resistant to frost and heat after setting and remains permeable to water vapour. LEYCOPLAST® AC is the predominant alternative for a multi-purpose and labour saving application.

### USES

- To resurface concrete surfaces
- Waterproof lining
- For coating sewage channels and manholes.
- Waterproof coating for bathrooms, kitchens, wet areas and roofs.
- For waterproofing and fixing tiles in water retaining structures, such as; tunnels, bridges and reservoirs

### ADVANTAGES

- ◆ Permanently flexible and accommodates dynamic crack movement up to 1.0 mm
- ◆ Applied to either pressure or non-pressure faced surface
- ◆ Excellent adhesion. Bonds to porous and non-porous, even and non-even, old and new surfaces
- ◆ Allows light-foot traffic
- ◆ Breathable whilst repelling water. Allows substrate to breath
- ◆ High resistance to carbon dioxide and chloride ion diffusion
- ◆ Unlike conventional coatings which require 7-28 days for concrete curing, LEYCOPLAST® AC can be applied to 24 hour-old concrete, thereby giving immediate protection
- ◆ Good protection against pollution
- ◆ Color compatible with host concrete
- ◆ Can be applied to damp concrete
- ◆ Sprayable using a hopper gun
- ◆ Suitable for permanent sunlight exposure after curing
- ◆ Non-toxic; ideal for potable water uses



## APPLICATION

### Surface Preparation

All surfaces must be thoroughly cleaned and free from laitance, loose material, dust, dirt, oil, grease, general grime, all contaminants, etc. All non-structural cracks above 1 mm wide should be filled and all structural cracks should be properly repaired or treated.

All old repairs should be inspected and repaired where necessary.

All water seepages should be treated using LEYCO®-PUR 251 and sealed using LEYCO®-PUR 252. Do not attempt to apply LEYCOPLAST®AC over weeping or seeping substrates no matter how slow the seepage is, as the LEYCOPLAST®AC will be damaged by the seepage water before it cures.

Newly laid concrete should be smooth and not a tamped down finish. It can be coated after 24 hours or as soon as it can be walked on.

All surfaces must be dampened before applying LEYCOPLAST® AC.

Any holes or indentations should be filled with a standard mortar if time permits.

Apply 45° fillets to all internal angles, using a standard mortar if time permits.

### Method of Application

#### Application of Priming

Priming is usually not required on good quality concrete substrates. However, for substrates which are contaminated by chlorides, priming is recommended before the application of LEYCOPLAST® AC.

In most waterproofing applications, LEYCOPLAST®AC is applied in 2 coats by a brush or trowel.

After applying the first coat of LEYCOPLAST® AC, apply the second coat "green on green" so that a chemical bond is achieved between the two coats.

Humidity has an influence on waiting times between coats and resistance to rain. Ensure that the freshly applied LEYCOPLAST®AC is protected from rain for the first day, and the drying effects of the sun and wind and frost during the first 3 days of cure.

#### Application of the main coating system:

Apply the first coat of LEYCOPLAST® AC using a brush, roller or trowel at a coverage rate of 2.0 kg / m<sup>2</sup> making sure that it is evenly coated. Do not paint-on but coat at 1mm thickness. Allow sufficient drying before over coating

Apply the second coat at right angles to the first coat to ensure proper coverage at a coverage rate of 2.0 kg / m<sup>2</sup>.

To improve the crack bridging performance, use a layer of Glass Fiber Mesh.

Allow the LEYCOPLAST®AC coating to completely dry before light foot traffic. For heavier usage protect with a floor screed.

Water bearing structures can be filled with water 24 hours after the LEYCOPLAST® AC has cured.

**Ground water ingress / Pressure less surface:** 2 coats must be at least applied at a rate of 2.0 kg / m<sup>2</sup> per coat. (Total minimum layer thickness for 2 coats must be 2.0 mm).

**Water under pressure:** 3 coats must be applied at a rate of 2.0 kg / m<sup>2</sup> per coat. (Total minimum layer thickness for 3 coats must be 2.75 mm).

**Note:** The total application should not exceed 5 mm thick otherwise splitting or cracking may occur.



### Curing

LEYCOPLAST® AC does not normally require any further curing

**Subsequent Finishes:** LEYCOPLAST® AC provides an aesthetically pleasing surface finish, texture dependent on method of application, and does not normally require any further surface finishers. LEYCO® PLAST AC is however compatible with most forms of subsequent coatings.

### Cleaning

Tools and equipment should be cleaned with water immediately after use.

## TECHNICAL DATA

### General Information

Test work done at thickness of 2 mm, each coat with a consumption of 2kg/m<sup>2</sup>.

	Component A	Component B
Form:	Powder	Liquid
Color:	Grey/White	Milky white
Specific gravity:	-	1.17 g/ml
Bulk density:	1.6 kg/litre	-
Max. thickness:	5 mm	
Temperature:	Not less than +4°C	
Toxicity:	Non-Toxic	

### Cured Properties:

Adhesion to concrete	up to 1.7 N/mm <sup>2</sup>
Penetration depth of water (at 7 bar)	0 mm (no leakage)
Elongation ASTM D2370	70%
Water absorption after storage (2 weeks, 3% KOH)	9 %
Tensile strength	0.65 N/mm <sup>2</sup>
Service temperature continuous ambient:	- 20°C to +150°C
(up to +240°C for short time period)	Resistance to
Freeze-Thaw (25/50 cycles)	<0.1 g/m <sup>2</sup>
Chloride penetration	0.08 %

### Crack bridging before ageing

Before ageing		After ageing	
start at 0 mm	1.2 mm	start at 0 mm	1.0 mm
start at 0.3 mm	1.2 mm	start at 0.3 mm	1.5 mm

### Diffusivity for

Vapor (R< 4 m)	2.0 m
CO <sub>2</sub> (R> 50 m)	640 m

### Mixing ratio

A:B 2.5: 1 (by weight)

### Storage

In cool dry place under shed and protected from direct sun

### Shelf life

At least 1 year in original sealed container

### Chemical Resistance

LEYCOPLAST® AC has outstanding wear and weather resistance and has good chemical resistance to gasoline, diesel, oil, sodium hydroxide, calcium chloride, de-icing salts and sewage.

## SAFETY INSTRUCTIONS

### Safety Precautions

LEYCOPLAST® AC contains cement powder which when mixed with water or become damp, release strong alkalis which can be harmful to the skin. During use, avoid contact with the skin and eyes. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier cream provides additional skin protection. In case of contact with the skin, rinse with plenty of clean water, then wash with soap and water. If poisoning occurs, contact a doctor. If swallowed, do NOT induce vomiting - give a glass of water. If in eyes, hold eyes open, flood with water for at least 15 minutes and contact a doctor. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

### Legal notes

Whilst information and/or specification contained herein is to the best of our knowledge true and accurate, and is based on many years of experience, we cannot accept any liability either directly or indirectly arising from the use of our products, whether or not in accordance with any advice, specification or recommendation given by us, as we have no direct or continuous control over how or where our products are applied.

LEYDE-PRODUCTS are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale. 16.08.2011

