

# IDROPLAN

TRANSPIRING AND MACROPOROUS, HIGHLY WATER-REPELLENT, FIBRE-REINFORCED DAMP-PROOFING PLASTER, BASED ON LIME AND HYDRAULIC BINDERS, FOR RESTORING AND PROTECTING EXTERNAL WALLS AGAINST DRIVING RAIN AND FOR MASONRY IN CONTACT WITH THE GROUND

GRANTS **LEED** CREDITS

CHARACTERISTICS	ENVIRONMENTAL	METHOD OF USE			PRECAUTIONS	
DAMP-PROOFING	ECO GREEN	RECYCLABLE	MIX MECHANICALLY	SPRAY APPLICATION	APPLY BY TROWEL	STORAGE: IN A DRY PLACE

## PROBLEM

### PROTECT FACADES EXPOSED TO HEAVY RAIN



Damp and its effects make rooms unhealthy and uninhabitable. Capillary rising damp is a frequent problem affecting walls of buildings, especially old or historical buildings, causing irreversible deterioration of the plaster.

The process is caused by absorption through capillarity, which porous building materials are prone to when they come into contact with ground water.

Damp caused by meteoric water from heavy rainfall can cause severe problems if the facades are not adequately protected.

## SOLUTION

**IDROPLAN** is a pre-mixed powdered plaster formulated with lime, hydraulic binders, calcareous aggregates with selected grain-size curve and additives ensuring a high degree of workability, porosity, water-repellency and adhesion to various types of substrates.

**IDROPLAN** prevents migration of atmospheric water into the masonry and allows for eliminating excess moisture in the form of water vapour, thanks to its high and uniformly distributed porosity. The problem of dehumidifying a wall affected by rising damp is resolved thanks to the considerable evaporation rate, which exceeds the humidification rate.



## APPLICATION FIELDS

**IDROPLAN** is particularly suitable for refurbishing external surfaces of damp walls, which require exceptional breathability coupled with high degree of water-repellency and protection against heavy rain.

Moreover, it can be used as a plaster for substrates in dehumidifying cycles on underground walls.

## ADVANTAGES

- High workability.
- Its ease of application reduces application costs.
- High adhesion to substrate.
- Excellent breathability.
- Excellent water-repellency, eliminates infiltrations due to heavy rain.
- Stops the disintegrating action of salts and frost-thaw cycles.
- Restores the natural moisture of walls to within the normal environmental values.

## METHOD OF USE

### • SURFACE PREPARATION

Plaster must be removed from damp walls for about one metre beyond any evident signs of damp. Remove all loose and flaking material, oils, release agents, dust and dirt in general by tapping, brushing and washing the surface with water. Fill any cavities with brick fragments and cement-lime mortar. In case of saline efflorescence, after cleaning the surface treat it with DEUMISAL, an anti-saline impregnating agent (1). Fresh on fresh, or nonetheless within 2 hours after the anti-saline treatment, apply a partial render coat using semi-liquid cement-lime mortar (1) mixed with water and COLLA-SEAL (adhesion promoter) in the ratio of 3:1.

### • PREPARING THE MIX

**IDROPLAN** is prepared by mixing the product with right quantity clean water (see table) (2). The mixing time must not exceed 3 minutes.

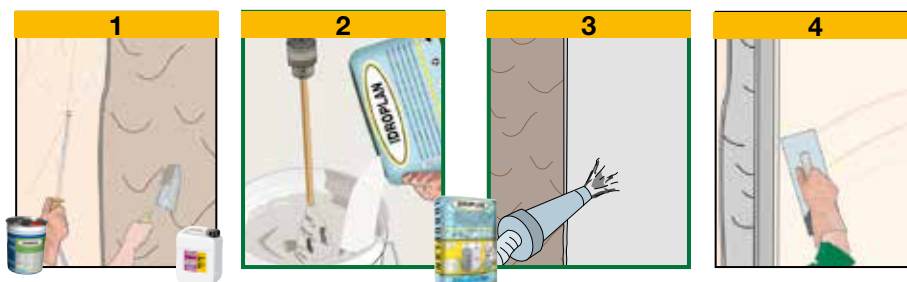
### • APPLICATION

Plaster the surface with **IDROPLAN** (3) 24 hours after applying the partial anchoring render coat, up to an average recommended thickness of 2 cm. In the case of clean walls that do not require ant-saline treatment, omit the render coat and apply the plaster directly.

### • APPLICATION SUGGESTIONS

Apply one or more coats of **IDROPLAN** within one hour of mixing up to the **minimum recommended thickness of 2 cm**. The **IDROPLAN** mortar can also be applied – besides using a trowel – with automatic spraying machines, such as PFT or Turbosol. No special precautions are required for its application beyond those normally observed

(See following)



## TECHNICAL CHARACTERISTICS

	Standard	IDROPLAN
Appearance		Powder
Colour		Grey
Particle size		0 ÷ 1.3 mm
Apparent density	EN 1015-6	1.30 ± 0.05 kg/L
Mixing water		22% ± 1%
Storage in original packaging in a dry place		12 months
<b>Mix properties and workability</b>		
Density of the mix		1.55± 0.05 kg/L
Application temperature		+5°C ÷ +35°C
Minimum application thickness		8 mm
Maximum application thickness per layer		20 mm
Application		Manual or mechanical
<b>Performance characteristics</b>		
<b>Class and type</b>	<b>EN 998-1</b>	<b>R</b>
<b>Resistance to compression - after 28 days</b>	<b>EN 1015-11</b>	5.1 N/mm <sup>2</sup> - CS II
Resistance to bending - after 28 days	<b>EN 196-1</b>	2.6 N/mm <sup>2</sup>
<b>Adhesion</b>	<b>EN 1015-12</b>	≥0.55 N/mm <sup>2</sup> - FP: A
Adhesion to concrete substrate	<b>EN 1015-12</b>	1.00 N/mm <sup>2</sup> - FP: B
<b>Water absorption through capillarity</b>	<b>EN 1015-18</b>	w ≤ 0.2 kg/m <sup>2</sup> ·h <sup>0.5</sup> - W2
<b>Water vapour permeability coefficient</b>	<b>EN 1015-19</b>	μ = 8
<b>Thermal conductivity λ<sub>10,dry</sub></b>	<b>EN 1745 A.12</b>	0.54 W/mK
<b>Durability</b>	<b>EN 998-1</b>	5.2.3.2 compliant
Thermal resistance - Working temperature		-30°C ÷ +90°C
<b>Reaction to fire</b>	<b>EN 13501-1</b>	A1
<b>Hazardous substances</b>	<b>EN 998-1</b>	According note in ZA.1

Test conditions: temperature 23±2°C, R.H. 50±5% and air speed in the test area <0.2 m/s. These figures may vary depending on the specific conditions of the worksite: temperature, humidity, ventilation, absorbency of the base coat.

(\*) The stated times may be longer or shorter as the temperature decreases or increases.

Compliant with the general principles defined in EN 998-1 - Principles for evaluation of the use of products and systems.

(See previous)

when using normal plaster.

Thanks to its high workability time, **IDROPLAN** can be laid on any architectural solution. Recently plastered surfaces, especially during the hot season, must be kept moist with nebulised water to avoid crazing. During the cold season, fresh plaster should be adequately protected against frost. Joints involving different elements must be reinforced with a special alkali-resistant fibreglass mesh, which must be embedded in the surface layer of the plaster.

Cracks and holes in the masonry must be filled in beforehand; in order to preserve the verticality of the walls, it is advisable to fix angle beads to the corners and vertical guides to the walls.

#### • FINISHES

For painting purposes, it is advisable to use highly breathable lime-, silicate- or siloxane-based wall paints, such as *BioC-ALCECOLOR* or *SILICOLOR*, or decorative mineral coatings such as *DECORFINE* (4).

If used on underground walls as a support-

ing plaster, **IDROPLAN** must be coated with **OSMOEAL** osmotic cement once it hardens.

#### • COVERAGE

14 kg/m<sup>2</sup> per 1 cm

#### • PRECAUTIONS

- Use cold water during summer and water at 20°C during winter.
- Application temperature: from +5 °C to +35°C.
- Do not add other materials such as binders, aggregates or additives.
- During the hot season, keep the surface of the laid mortar damp so as to prevent the product from drying rapidly, for at least 8 hours.
- Wet the surfaces in case of high temperatures.
- Avoid sudden temperature changes while the plaster dries.
- Do not add water when the mix starts setting.
- For application on smooth or poorly absorbent surfaces, always apply an anchor-

ing render coat and check that it adheres properly.

- In environments characterised by damp caused by water infiltrations, a waterproofing treatment with **OSMOEAL** osmotic cement must be applied before the dehumidifying plaster, followed by an anchoring render coat. To this aim, we suggest consulting the chapter entitled 'RENOVATING DAMP WALLS WITH DEHUMIDIFYING PLASTER'.
- Joints involving different elements must be reinforced with special fibreglass mesh, **RETINVETRO PER INTONACI**, which should be embedded in the last layer of plaster.
- Store the product in its original closed packaging in a dry place. Protect against frost and high temperatures.



the numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best regarding the properties and the use of the product. Considering

## PACKAGING

25-kg Sack

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

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