

Hydro Monoelasto 100

Single-component, elastic cement sheath, specifically designed for waterproofing and protecting concrete, resistant to UV rays, certified in accordance with UNI EN 1504-2 and UNI EN 14891

Hydro Monoelasto 100 is a single-component, polymer-modified cement waterproofing product made with high resistance hydraulic binders, selected aggregates and special additives. Specifically designed for waterproofing and protecting concrete. Developed by research activities in **Licata SpA** laboratories, **Hydro Monoelasto 100** stands out for its superior flexibility and tenacity, adhesion strength, and surface mechanical strength. Easy workability, the product can be applied either using a trowel (with 3 mm teeth) or a roller, or even a brush. Resistance to UV rays is the added value which the **Licata S.p.A. Research and Development** team devoted specific studies to. **Hydro Monoelasto 100** is certified and identified in accordance with **UNI EN 14891**, as waterproof cement mortar, resistant to chlorine and with crack-bridging ability at low temperatures (-20 °C) and it is therefore classified as **CM02P**; in addition, it meets the requirements of **UNI EN 1504-2** for coating (C) in accordance with PI, MC and IR principles.



MAIN AREAS OF APPLICATION

Hydro Monoelasto 100 was formulated to ensure the best performance levels in waterproofing and protection work on the most commonly used cement substrates in construction. **Hydro Monoelasto 100** can be applied either using a trowel (with 3 mm teeth) or a roller, or even a brush, effectively accommodating all the application requirements of construction sites.

It is recommended for waterproofing:

- Roofs
- Balconies
- Terraces
- Screeds, including old ones, provided they are compact and not powdery
- Swimming pools, prior to laying the ceramic tiles.
- Vats and tanks
- Hydraulic works, such as irrigation channels or gutters, dams, etc.
- Prefabricated concrete or cast in-situ
- Autoclaved aerated concrete
- Cement substrates of various natures.

Hydro Monoelasto 100 meets the requirements of **UNI EN 1504-2** for coating (C) in accordance with PI, MC and IR principles and it proves to be perfectly stable to UV rays; it is therefore also recommended for protecting concrete, both as a final layer, as well as an intermediate layer prior to laying ceramic floors, or decorative tiles.

For application on other types of substrates, please contact our engineering department.

CHARACTERISTICS

- Specifically designed for waterproofing. **Hydro Monoelasto 100** is certified and identified in accordance with UNI EN 14891, as waterproof cement mortar for liquid application, resistant to chlorine and with crack bridging ability at low temperatures (-20 °C) and therefore classified as CM02P.
- Specifically designed to protect concrete. **Hydro Monoelasto 100**, owing to its special formula, prevents atmospheric CO₂ from penetrating, thus protecting the concrete underneath it against the negative consequences of carbonation; in addition it meets the requirements of **UNI EN 1504-2** for coating (C) in accordance with PI, MC and IR principles.



- Resistant to UV rays. Resistance to UV rays is the added value which the **Licata SpA Research and Development** team devoted in-depth studies to.
- Easy workability. The use of special additives and inert spherical quartz materials with a constant particle size curve with a maximum head of < 300 micron make **Hydro Monoelasto 100** extremely spreadable, easy to work and apply both using a trowel (with 3 mm teeth) or using a roller, or even a brush, effectively meeting all the application requirements of construction sites.
- High adhesion strength. **Hydro Monoelasto 100** is a polymer-modified mortar. The adhesion values obtained after exposure to extreme conditions of frost, heat and chemical aggression are proof of its reliability over time.
- Can be walked over. The high-performance hydraulic binders, selected inert materials with constant particle size curve lend it good surface mechanical strength.

APPLICATION METHOD

Preparing the substrate

Mechanically remove all flaking parts or easy to peel off. Clean the area of application thoroughly so that it is free of dust residue from surface treatments such as: detergents, oily substances, mineral or organic greases, waxes, traces of gypsum and salt.

Preparing the mixture

You need 4.8-5.8 litres of clean water (UNI EN 1008) for every 20 kg bag (i.e. 24-28% in mass).

Pour the product into a clean tub, containing $\frac{3}{4}$ of the mixing water, mix for around 3 minutes with a mixer at low speed, gradually adding the remainder of the water until you achieve an even mixture without any lumps. Avoid splitting the packs to perform partial mixtures.

The product stored in open bags and only used in part may no longer meet the technical characteristics listed in this document.

Application

Apply **Hydro Monoelasto 100** with a brush, roller or trowel, within 60 minutes of mixing it. Once the first coat has cured (approximately 24 hours depending on the weather), apply a second coat of **Hydro Monoelasto 100**. The thickness for each layer of **Hydro Monoelasto 100** must not exceed 1.5 mm, and the final thickness must fall between 3 and 4 mm. In the case of extreme weather conditions (strong wind, midday sun, etc.) it is a good idea to take precautions to avoid it drying too quickly. Placing the mesh in between, to protect concrete and waterproof reinforced substrate walls, is recommended but not necessary. For challenging cases such as highly uneven surfaces, with the presence of micro-cracking, areas subject to wear, substrates subject to settling or movements and for application to the interface between different materials, it is highly advisable to embed - between the first coat and the second - a layer of **licatatherm 160** fibreglass mesh as reinforcement, and proceed with applying a third coat of the product.

Make sure the temperature of the room, of the substrate, and of the product during application falls between +5 °C and +35 °C.

PRODUCT INFORMATION

Appearance	grey powder
Particle size	< 0.3 mm
Powder consumption	1.1 kg/m ² per mm in thickness
Mixing water	24-28% of powder weight
Workability time at 20 °C	≈ 30 minutes
Application thickness per coat	≤1.5 mm
Application temperature	between +5 °C and +35 °C
Storage	12 months in a dry, protected place in sealed packs, at temperatures of between +5 °C and +35 °C
Packaging	20 kg bag
Density	1420-1500 kg/dm ³
Mixture pH	approximately 10

PERFORMANCE LEVELS required according to

Characteristic	Test Method	Normative requirement	Performance
Permeability to CO ₂ (Sd CO ₂)	EN 1062-6	>50 (m)	> 225 (m)
Equivalent air layer thickness (Sd)	EN ISO 7783-1 EN ISO 7783-2	< 5 (m)	< 1.1 (m)
Capillary absorption and water permeability	EN 1062-3	<0.1 kg/m ² h ^{1/2}	0.02 kg/m ² h ^{1/2}
Freeze/thaw cycles with immersion in de-icing salts	EN 13687-1	>1.5 MPa	>1.7 MPa
Thunder shower cycles (thermal shock)	EN 13687-2	>1.5 MPa	>1.7 MPa
Direct traction adherence	EN 1542	>1.5 MPa	>2.3 MPa
Fire classification of construction products and building products	EN 13501-1		NPD
Hazardous substances	Standard not available	Standard not available	Standard not available

PERFORMANCE LEVELS required according to

Characteristic	Test Method	Normative requirement	Performance
Initial adhesion strength	A.6.2	≥0.5 N/mm ²	≥1.4 N/mm ²
Adhesion strength after immersion in water	A.6.3	≥0.5 N/mm ²	≥0.7 N/mm ²
Adhesion strength after immersion in saturated water and lime solution	A.6.5	≥0.5 N/mm ²	≥0.8 N/mm ²
Adhesion strength after action of heat	A.6.6	≥0.5 N/mm ²	≥1.5 N/mm ²
Adhesion strength after frost/thaw cycles	A.6.9	≥0.5 N/mm ²	≥0.7 N/mm ²
Water penetration	A.7	<0.1 kg/m ² h ^{1/2}	<0.03 kg/m ² h ^{1/2}
Determination of "crack bridging" in standard temperature conditions	A.8.2	≥0.75 mm	≥1.5 mm
Determination of "crack bridging" in -20°C temperature conditions	A.8.3	≥0.75 mm	≥1.25 mm

WARNINGS

- Professional-grade product.
- Do not water or more powder to the mixed product.
- Alkaline material: protect your eyes and skin during application.
- After use, wash tools with water while the mixture is still fresh.
- The room temperature and degree of humidity affect the workability, grip and drying times.
- Monitor the product curing suitably for at least the first 24 hours after laying, protect fresh mortar against rapid drying, against direct sunlight, strong wind and heavy rain.

SAFETY

As regards the information concerning proper product disposal, storage and handling, please consult the relevant Safety Data Sheet.

NOTES

This technical data sheet replaces and cancels all previous versions.

The indications and performance levels provided in this document are based on our current technical-scientific knowledge and in any case should be considered as purely indicative since the conditions of use are in no way under our control. The purchaser must therefore check the suitability of the product for his or her specific needs, assuming all responsibility deriving from its use. Our technical-sales network guarantees a speedy response and is at your disposal for any clarifications or queries regarding the use and processing of **licata SpA** products.

Data Sheet ref.: 110/17.1

