

# INTOIDRO ELS

**ELASTIC CEMENTITIOUS FIBER REINFORCED TWO-COMPONENT MEMBRANE FOR WATERPROOFING**  
**Compliant with UNI EN 1504-2 AND UNI EN 14891**



## DESCRIPTION

It is a premixed fibre-reinforced two-component mortar based on cementitious binders anti-aggressive and abrasion-resistant, for the mineral waterproofing generally and the solution of the problems caused by the positive and negative pressure of the water and by the containment of the water also drinkable, as protection of plasters and concretes to the water penetration and to the attack of aggressive atmospheric elements, as anti-carbonating for concrete structures, as elastic skim coat plaster of prefabricated structures subjected to small deformations, overlapping of existing floors.

## PACKAGING

**INTOIDRO ELS** is ready to use and is sold in two pre-dosed components:

**COMPONENT A** multi-ply paper sacks with protection of kg 25 on wood pallets of 8,75 ql. (35 sacks).

**COMPONENT B** Plastic tanks of lt 7,5 on wood pallets of 2,625 ql. (35 tanks).

## COMPOSITION

### COMPONENT A (POWDER)

Special cementitious binders, selected siliceous binders, polypropylene fibers, additives tested for the specific use which give to the product a very high adhesion and workability.

### COMPONENT B (LIQUID)

Mix of special elastic synthetic polymers in water dispersion, special additives.

## FEATURES

An accurate and selective choice of the main materials made with a perfect grading curve, thanks to the use of our own crush system, produce with the only mix of component A and component B a mortar very plastic, elastic and easily workable. No cracks, no detachment it's corrosion and impact resistant. It's suitable for the mineral waterproofing and the resolution of problems caused by the negative pressure of the water and the containment of the water and for the protection of chlorides and sulfates of structures ca and c.a.p

## SUBSTRATES

Cementitious screeds;  
Cured concrete;  
Prefabricated concrete;  
Cementitious plasters;  
Existing floors:

## USE

- Waterproofing of swimming pools, terraces, balconies, showers, bathrooms, etc.
- Waterproofing of retaining walls;
- Waterproofing of concrete basins for the containment of the water also drinkable;
- Elastic skim coating of prefabricated structures subjected to small deformations;
- Anti-carbonating skim coating of concrete structures;
- Protective skim coating of plasters and concretes damaged, as a barrier to phenomena of water penetration;
- Protective skim coating and waterproofing of plasters and concretes subjected to the contact with aggressive atmospheric elements, etc.;



## APPLICATION

- Prepare the surfaces removing all the crumbling and inconsistent parts; and dusts, mud, bitumen, oil stains, etc.
- To wet, beforehand, particularly absorbent or dry or exposed to hot climate walls.
- In case of seeping substrates, remove the exudations.
- Pour component B (liquid) into a clean bowl and add slowly component A (powder), mix gradually with a mixer at low speed to obtain a mortar completely homogeneous.
- Apply with a trowel or by spraying with suitable equipment.
- Apply within 60 minutes from the preparation.
- INTOIDRO ELS can be applied at different thicknesses, is recommended for just one coat not to exceed 2 mm of thickness. In case of more coats wait for 4/5 hours before applying the following coat.
- Is recommended to insert on the first coat as reinforcement MALVIN NET network port plaster in glass fiber mesh 4x4 mm, of min. 150 gr, certified ETAG004 or MALVIN TEX if it is expected the formation of micro-cracks or in case you want to achieve greater resistance of the finished product.
- Take care to use a tape made of synthetic material MALVIN BAND in proximity of junctions between horizontal and vertical surfaces and/or dilatation joints.
- The minimum thickness of the finished product doesn't have to be lower to mm 1.
- With high temperatures, is recommended to protect from the quick dry protecting the substrates with polypropylene towels.
- For waterproofing of tanks for containing water to wait for filling the maturation for at least 28 days.
- For applications as protection and waterproofing of concrete structures, remove all the inconsistent, friable or damaged parts, traces of oil and form release agents, if necessary sandblast carefully rusty reinforcement bars and apply "INTOFER" and to restore with mortars "INTORIS MT or MC".
- Can be applied on existing floors and coverings if well-bonded and free of substances that prevent the adhesion as dusts, mud, bitumen, oil stains, etc.
- For applications on cementitious concretes let the substrate mature for at least 7/15 days depending on the season.
- For waterproofings against the ground is recommended to protect INTOIDRO ELS with polystyrene panels.
- For use as protective skim coating of plasters or concretes is recommended to use as superficial decoration the flexible paint "MEHLVIT ELS".
- Protect the substrates from water for 48 hours at least after the application.
- Don't apply on frozen substrates, with frost or possible frost in 24 hours.
- Don't apply on gypsum substrates, synthetic coatings or paints, or bituminous products.
- Don't apply on seeping substrates.
- Don't apply on inconsistent and friable substrates.
- Don't apply with strong wind or in very sunny days.
- Don't apply until when the substrate isn't completely dried.
- Don't apply with driving rain.
- Don't apply on bituminous membranes.
- Don't apply on walkable surfaces and left exposed.
- Don't apply on wood or metal substrates.
- Don't add any other material to the product.
- We suggest to apply INTOIDRO ELS with a temperature between + 8 ° C and + 30 ° C.
- Can be walked on 24/48 hours.
- Waiting time for laying ceramics 4/5 days.
- Waiting time for the backfilling 10/12 days.

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# INTOIDRO ELS

## YIELD

1,6 kg/mq thickness 1 mm.

## TECHNICAL SPECIFICATIONS

### COMPONENT A POWDER

Specific weight	1.500 kg/m <sup>3</sup>
Solid Residue	100%
Grading EN 1015-1	≤ 0,5 mm
Danger directive 1999/45/CE	Irritating
Non-flammable	Class "A1"

### COMPONENT B LIQUID

Specific weight	1.030 kg/m <sup>3</sup>
PH	7,3
Solid Residue	50%
Viscosity	Liquid fluid
Danger directive 1999/45/CE No	
Non-flammable	Class A1"

## TECHNICAL SPECIFICATIONS OF THE MIXTURE UNI EN 14891

<b>Color</b>	Grey
<b>Ratio mixture</b>	A/B=3,3/1
<b>Mixture obtained</b>	Plastic/spoonable
<b>Specific weight EN 1015-10</b>	1.570 kg/m <sup>3</sup>
<b>Pot life of the mixture</b>	60 minutes
<b>Initial adhesion A.6.2 EN 14891</b>	≥ 0,5 MPa
<b>Adhesion strength after water immersion A.6.3 EN 14891</b>	≥ 0,5 MPa
<b>Adhesion strength after heating A.6.5 EN 14891</b>	≥ 0,5 MPa
<b>Adhesion strength after freeze-thaw cycles A.6.6 EN 14891</b>	≥ 0,5 MPa
<b>Adhesion strength after basic water immersion A.6.9 EN 14891</b>	≥ 0,5 MPa
<b>Water impermeability after 28 days</b> (1,5 bar after seven days of positive pressure) <b>A.7 EN 14891</b>	No penetration
<b>Crack-bridging ability at +20°C A.8.2 EN 14891</b>	≥ 0,75 mm
<b>Adhesion on concrete</b>	1,1 N/mm <sup>2</sup>
<b>Water absorption due to capillary action</b>	Impermeable
<b>Non-flammable</b>	class "A1"
<b>Toxicity - Regulation CE 1272/08</b>	Dangerous

## TECHNICAL SPECIFICATION OF THE MIXTURE UNI EN 1504-2

<b>Bonding adhesion EN 1542</b>	> 1MPa
<b>Absorption due to capillary action and water permeability (w) EN 1062-3</b>	< 0,1 Kg/(m <sup>2</sup> •H <sup>1/2</sup> )
<b>Water vapor permeability (SD) EN ISO 7783-2</b>	Classe 1
<b>CO<sub>2</sub> Permeability (SD,CO<sub>2</sub>)</b>	> 50 m
<b>Classification UNI EN 1504-2*</b>	C-P1-MC-IR • Dop nr. 232

\* at guaranteed performance (2+)

## SUMMARY

The mineral waterproofing generally and the solution of the problems caused by negative and positive pressure of the water and to the containment of the waters also drinkable, the protection of plasters and concretes to the water penetration and to the attack of aggressive atmospheric elements, the anti-carbonatating protection of concrete structures, the elastic skim coating of prefabricated structures subjected to small deformations will be realized with a two-component premixed mortar based on cementitious binders and a mixture of special synthetic polymers in water dispersion, anti-aggressive and abrasion-resistant type "INTOIDRO ELS" by MALVIN S.r.l., applied with a trowel or by spray and to mix component A and component B in ratio 3/1 with a consumption of 1,6 kg/mq thickness mm 1.

*The performance characteristics refer to laboratory tests, values depend on the weather conditions and on the methods of implementations. The operator must verify the suitability of the product depending on the use planned.*



# MALVIN



# INTOIDRO MONO



**CEMENTITIOUS ELASTIC FIBER REINFORCED ONE-COMPONENT MORTAR FOR WATERPROOFING**  
Compliant with UNI EN 1504-2 E UNI EN 14891

## DESCRIPTION

It is a premixed fiber reinforced one-component mortar based on cementitious binders antiaggressive and abrasion resistant, for the mineral waterproofing in general, as protection of plasters and concretes to the water penetration and to the attack of aggressive atmospherical elements, as anti-carbonatating for concrete structures, as elastic skim coat plaster of prefabricated structures subjected to small deformations in overlap of existing floors, to waterproof pools.



## COMPOSITION

Special cementitious binders, special acrylic polymers very elastic, selected siliceous inerts, polypropylene fibers, additives tested for the specific use which give to the product a very high adhesion and workability.

## FEATURES

An accurate and selective choice of the main materials made with a perfect grading curve, thanks to the use of our own crush system, produce just adding water a mortar very plastic, elastic and easily workable. No cracks, no detachment it's corrosion and impact resistant. It's suitable for the mineral waterproofing and the resolution of problems caused by the negative pressure of the water and the containment of the water and for the protection of chlorides and sulfates of structures ca and c.a.p

## SUBSTRATES

Cementitious screeds;  
Cured concrete;  
Prefabricated concrete;  
Cementitious plasters;  
Existing floors:

## USES

- Waterproofing of swimming pools, terraces, balconies, showers, bathrooms, etc.
- Waterproofing of retaining walls;
- Waterproofing of concrete basins for the containment of the water also drinkable;
- Elastic skim coating of prefabricated structures subjected to small deformations;
- Anti-carbonatating skim coating of concrete structures;
- Protective skim coating of plasters and concretes damaged, as a barrier to phenomena of water penetration;
- Protective skim coating and waterproofing of plasters and concretes subjected to the contact with aggressive atmospheric elements, etc.

## APPLICATION

- Prepare the surfaces removing all the inconsistent and crumbling parts; removing dusts, mud, bitumen, oil stains, etc.
- To wet, beforehand, particularly absorbent or dry or exposed to hot climates walls.
- In case of seeping substrates, remove the exudations.
- Mix gradually with clean water and with a mixer at low speed to obtain a mortar completely homogeneous.
- Apply with a trowel, a roller or by spray.
- Apply within 60 minutes from the preparation.



# INTOIDRO MONO



- INTOIDRO MONO can be applied at different thicknesses, is recommended for just one coat not to exceed 1 mm of thickness. In case of more coatings wait for 4/5 hours before applying the following coating.
- Is recommended to put always on the first coat as reinforcement MALVIN NET network port plaster in glass fiber mesh 4x4 mm, of min. 150 gr, certified ETAG004 or MALVIN TEX if it is expected the formation of micro-cracks or if you want to obtain greater resistance of the finished product, to obtain better performances of the finished product insert on the first coats.
- Take care to use a tape made of synthetic fabric MALVIN BAND in proximity of joints between horizontal and vertical surfaces and/or of dilatation joints.
- The minimum thickness of finished product doesn't have to be lower to mm 1.
- With high temperatures, is recommended to protect from the quick dry protecting the substrates with polypropylene towels.
- For applications as protection and waterproofing of concrete structures, remove all the inconsistent parts, friable or damaged, tracks of oils and form release agents, if necessary sandblast carefully rusty reinforcement bars and apply "INTOFER" and restore with mortars "INTORIS MT or MC".
- Can be applied on floors and coatings but well adherent and free from substances that prevent the adhesion as dusts, mud, bitumen, oil stains, etc.
- For applications on cementitious plasters let the substrate rest for 7/15 days at least depending on the season.
- For water-proofings against the ground is recommended to protect INTOIDRO MONO with polystyrene panels.
- For use as protective finish of plasters or concretes is recommended to use as superficial decoration the flexible paint "MEHLVIT ELS".
- Protect the substrates from water for 48 hours at least after the application.
- Don't apply on frozen substrates, with frost or possible frost in 24 hours.
- Don't apply on gypsum substrates, synthetic coatings or paints, or bituminous products.
- Don't apply on breathable substrates.
- Don't apply on inconsistent and friable substrates.
- Don't apply with strong wind and in very sunny days.
- Don't apply until when the substrate isn't completely dried.
- Don't apply with driving rain.
- Don't apply on bituminous membranes.
- Don't apply on walking surfaces and on surfaces left exposed.
- Don't apply on metal or wood substrates.
- Don't add any other material to the product.
- We suggest to apply INTOIDRO MONO with a temperature between + 8 ° C and + 30 ° C.
- Can be walked on 24/48 hours.
- Waiting time for the laying of the ceramics 4/5 days.
- Waiting time for the backfilling 10/12 days.

## YIELD

1,1 kg/mq thickness 1 mm.

## PACKAGING

Multi-ply paper sacks with protective film of kg 25 on wood pallets of 17,50 ql. (70 sacks).





# INTOIDRO MONO

## TECHNICAL SPECIFICATIONS OF THE MIX COMPLIANT WITH UNI EN 14891

<b>Color</b>	Grey
<b>Water content of the mix</b>	27-29 %
<b>Mix obtained</b>	Plastic/brushable
<b>Specific weight</b>	1.450 kg/m <sup>3</sup>
<b>Pot Life</b>	60 minutes
<b>Initial adhesion strength A.6.2 EN 14891</b>	> 0,5 MPa
<b>Adhesion strength after water immersion A.6.3 EN 14891</b>	> 0,5 MPa
<b>Adhesion strength after heating A.6.5 EN 14891</b>	> 0,5 MPa
<b>Adhesion strength after freeze-thaw cycles A.6.6 EN 14891</b>	> 0,5 MPa
<b>Adhesion strength after immersion in basic water A.6.9 EN 14891</b>	> 0,5 MPa
<b>Water permeability after in pressure (1,5 bar after days of positive pressure) A.7 EN 14891</b>	No penetration
<b>Crack bridging ability at +20°C A.8.2 EN 14891</b>	≥ 0,75 mm
<b>Crack bridging ability at -5°C A.8.3 EN 14891</b>	≥ 0,75mm
<b>Adhesion on concrete</b>	1,1 N/mm <sup>2</sup>
<b>Water absorption coeff. due to capillary action</b>	Permeable class "A1"
<b>Non flammable</b>	
<b>Toxicity - Regulation CE 1272/08</b>	Dangerous

## TECHNICAL SPECIFICATIONS OF THE MIXTURE UNI EN 1504-2

<b>Bonding adhesion EN 1542</b>	> 1MPa
<b>Abs. due to capillary action and water permeability (w) EN 1062-3</b>	< 0,1 Kg/(m <sup>2</sup> •h <sup>1/2</sup> )
<b>Water vapor permeability (SD) EN ISO 7783-2</b>	Classe 1
<b>CO2 (SD,CO2) Permeability EN 1062-6</b>	> 50 m
<b>Classification UNI EN 1504-2*</b>	C-P1-MC-IR • Dop nr. 231

\*at guaranteed performance (2+)

### SUMMARY

The mineral water-proofing in general, the protection of plasters and concretes from the water penetration and from the attack of aggressive atmospherical elements, the anti-carbonatating protection of concrete structures, the elastic skim coating of prefabricated structures subjected to little deformations will be realized with a premixed one-component mortar based on cementitious binders and special acrylic polymers very elastic, anti-aggressive and abrasion resistant, type "INTOIDRO MONO" by MALVIN S.r.l., applied with a trowel, roller or brush and to mix just with clean water with a consumption of 1,1 kg/mq thickness mm 1.

*The performance characteristics refer to laboratory tests, values depend on the weather conditions and on the methods of implementations. The operator must verify the suitability of the product depending on the use planned.*



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