



# BETONGUAINA

Bi-component liquid polymer-cement membrane for exposed terraces and for direct bonding of tiles



CE marking:

- EN 1504-2 (C) - Principles: PI-MC-IR
- EN 14891 - Class: CMO2P

## TECHNICAL SPECIFICATIONS



## FIELD OF APPLICATION



## APPLICATIONS



## Description

BETONGUAINA is a water-based integrated waterproofing system consisting of a liquid component (A) formulated with an aqueous dispersion of polymers and additives, and a powder component (B) formulated with reactive fillers.

When applied to horizontal or vertical surfaces, after curing, BETONGUAINA creates a cement-coloured membrane with excellent water tightness and elasticity, suitable for waterproofing in exteriors.

The membrane produced by BETONGUAINA is resistant to sunlight (IR and UV rays) and heavy rain, and protects surfaces exposed to weathering and stagnant water.

BETONGUAINA is also suitable for use in cold climates (down to  $-20^{\circ}\text{C}$ ).

## CE marking

### ► EN 1504-2

BETONGUAINA fulfils the principles defined in the EN 1504-9 standard ("Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and evaluation of conformity. General principles for use of products and systems") and to the requirements of the EN 1504-2 standard ("Protection systems for concrete surfaces") for the following class:

→ PI-MC-IR

- For Principle 1 (PI) - Protection against penetration risks: 1.3 Coating (C), ZA.1d.
- For Principle 2 (MC) - Humidity control: 2.2 Coating (C), ZA.1e.
- For Principle 8 (IR) - Resistance increase through the limitation of the humidity content: 8.2 Coating (C), ZA.1e.

### ► EN 14891

BETONGUAINA satisfies the requirements stated in the EN 14891 standard "Liquid-applied waterproofing products for use beneath ceramic tiling bonded with adhesives". Designation:

→ CMO2P

- Waterproof product formulated with cement applied in the liquid state (CM).
- With enhanced crack-bridging capacity at very low temperatures ( $-20^{\circ}\text{C}$ ), (O2).
- Resistant to contact with chlorinated water, (P).

## Field of application

► with NYCON 100 and NYCON F reinforcement

- Waterproofing of walk-over exposed flat roofs, terraces and balconies.
- Waterproofing of flat roofs, terraces and balconies for direct bonding of the tiles with the specific adhesive BETON H1.
- Waterproofing of old membranes, line gutters and valley gutters, cornices, chimneys, balcony fronts, perimeter walls, chimney stacks.
- Waterproofing of walls and facades.

## Advantages

# BETONGUAINA

- BETONGUAINA can be applied even at low temperatures (down to +0.1°C).
- BETONGUAINA can also be used on substrates wetted by rain.
- BETONGUAINA can be used on recently cast concrete or screeds.
- BETONGUAINA left exposed allows the damp surfaces to which it was applied to dry.
- BETONGUAINA applies with a single stroke.
- BETONGUAINA is resistant to direct sunlight (infrared and ultraviolet rays – IR and UV).
- BETONGUAINA is very fluid without the addition of water.
- BETONGUAINA is easy to prepare and to apply.
- BETONGUAINA has excellent adhesion on cement, ceramic, plastic and metal.
- BETONGUAINA cures rapidly.

---

## General preparation of the laying support

- First of all, make the fillets over the joints between the floor and wall, the joints on the floor and joints with flashing, gutters, through pipes, railing and sub-thresholds using BETONSEAL MS 2.0 with the relative primers (NORPHEN FONDO IGRO and BETONSEAL PRIMER or other more specific products).
- Clean the laying surface from dust, oil, grease and detaching parts.

---

## Specific preparation of the laying support

### ► Sand/cement or concrete screeds

- Remove the crumbling parts and the dust.
- In case of screeds with poor adhesion, apply one coat of NORPHEN FONDO IGRO (or even PRIMER PLS or SW SOLID diluted 1:4).
- In case of screeds with open-pore finish, skim coat the surface with GROVE PRIMER ECO (1 part by weight) and GROVE MASSETTO (3 parts by weight).
- Check the slopes and, if necessary, modify them using GROVE PRIMER ECO and GROVE MASSETTO.
- Treat the joints by creating a strap with BETONSEAL MS 2.0 without using reinforcements (See ► Special interventions (in-depth analysis) ►► Treating dividing and/or expansion joints).
- Fill any cracks with PLAST EPO or eliminate them through stitching with fixed bars (See ► Special interventions (in-depth analysis) ►► Treatment of cracks).

### ► Old roofs, terraces e balconies with existing tiles

- Verify that the tiles adhere properly to the support.
- If a few tiles must be detached, repair the surface with GROVE PRIMER ECO and GROVE MASSETTO (follow the instructions of the relevant Technical Sheet).
- Grind the ceramic surface using a diamond grinding wheel.
- Check the slopes and, if necessary, modify them using GROVE PRIMER ECO and GROVE MASSETTO.
- In case of tiles laid with wide gaps, skim coat the surface with slurry prepared using GROVE PRIMER ECO (1 part by weight) and GROVE MASSETTO (3 parts by weight).
- Treat the joints by creating a strap with BETONSEAL MS 2.0 without using reinforcements (See ► Special interventions (in-depth analysis) ►► Treating dividing and/or expansion joints).
- Fill any cracks with PLAST EPO or eliminate them through stitching with fixed bars (See ► Special interventions (in-depth analysis) ►► Treatment of cracks).
- Verify that there is no excess rising damp with high amounts of saltpeter.

### ► Old bitumen membrane

- Clean the surface thoroughly using a water jet cleaner to eliminate soil and dust build-up caused by ageing and rainfall.
- Check that the bitumen membrane adheres perfectly to the substrate.
- In case of detachment, make cuts on the membrane in the detached zone, raise the free edges and restore the adhesion using a gas-powered torch (burner).
- Before proceeding, identify the type of BITUMEN MEMBRANE to be treated.  
→ NORMAL BITUMEN MEMBRANES (without protection).
- Treat the surface with FONDO IGRO SL and, wet-on-wet, sprinkle it lightly with 0.1–0.6 mm NATURAL QUARTZ sand.
- Wait a few hours before applying BETONGUAINA.

# BETONGUAINA

→ SELF-PROTECTED BITUMEN MEMBRANES (with coloured slate gravel)

- Consolidate the chippings with BLACK SOLID.
- Wait a few hours before applying BETONGUAINA.

→ BITUMEN MEMBRANES PAINTED with reflective paint.

- Flame the surface with a gas-powered torch to improve the adhesion of BETONGUAINA.
- Wait until the surface cools before applying BETONGUAINA.

→ BITUMEN MEMBRANES COATED with other types of protective coatings (e.g. metal flakes, water- or solvent-based paints, resin coatings).

- Carefully verify the adhesion of the protective coating to the underlying membrane.
- If the pairing is perfect, treat the exposed surface with the suitable primer depending on the material with which it is made (see Appendix H and/or the "PRIMER" section of the Catalogue-Price List).
- Observe the curing period relevant to the primer used (consult the Technical Sheets of the single products).
- Proceed with the application of BETONGUAINA.

▶ Special interventions (details)

▶▶ Treatment of cracks

The cracks must be treated differently depending on the type (STABILISED CRACKS and MOVING CRACKS).

→ STABILISED CRACKS: a crack is stabilised when it was formed during the screed casting and is not subject to ongoing opening and closing movements. In this case, sealing with epoxy resin will be sufficient.

- Widen the crack using a diamond grinding wheel
- Carefully suck up the dust.
- Fill the crack until saturation by pouring NORPHEN RICRETE (or PLAST EPO) into it.

→ MOVING CRACKS: refers to the movement of a crack that tends to open and close continuously with considerable shifts. In this case, "stitching" is necessary.

- Prepare sections of the corrugated rebars 30–50 cm long with 8–10 mm.
- Use a diamond grinding wheel to make cuts perpendicular to the crack, spaced out roughly 50 cm from one another.
- The groove will be roughly 2 cm deep and its width will be suited to the diameter of the rebars used.
- Suck up the dust from the cracks.
- Fill the cracks with PLAST EPO.
- Insert the rebars in the resin-reinforced openings.
- Saturate the crack with PLAST EPO until it is completely filled.

# BETONGUAINA

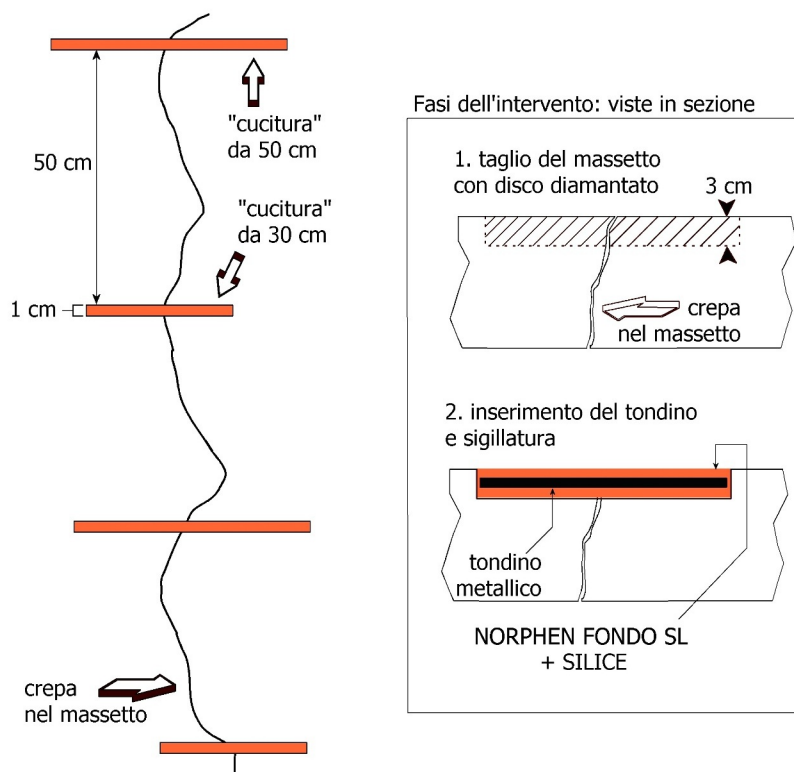


Figure 1: stitching of a MOVING CRACK

## ►► Treatment of dividing and/or expansion joints

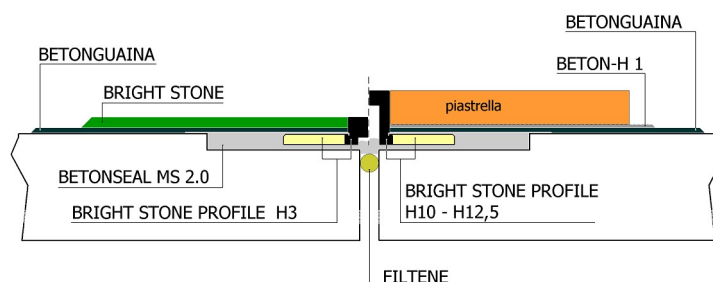
The joints must be treated differently in relation to the type (DIVIDING or CONTROL JOINTS and EXPANSION JOINTS).

→ DIVIDING (or CONTROL) JOINTS on screeds and on industrial concrete:

- They can be stitched with the same method used for MOVING CRACKS (see relevant paragraph and Figure 1) if they are sufficiently cured for having terminated most of their hygrometric shrinkage (roughly 1 month for screeds and 3 months for concrete).

→ EXPANSION JOINTS: they cannot be blocked owing to their function. They must be lined up on the surface as described below.

- Make a recess measuring roughly 1 mm parallel to the joint, using a grinder fitted with a diamond disc (the disc normally has a 125 mm diameter).
- Carefully suck up the dust.
- Apply one coat of NORPHEN FONDO IGRO with a brush.
- Wait for the solvent to evaporate (10–15 minutes).
- Insert a joint sealing cord made of expanded-extruded material (FILTENE).
- Fill the entire recess with BETONSEAL MS 2.0.



# BETONGUAINA

Figure 2 – Preparation of the substrate in the presence of EXPANSION JOINTS

## ►► Treatment of vertical overlaps (FILLETS)

- Apply one coat of NORPHEN FONDO IGRO using a block brush along the wall-floor corner and for roughly 3–4 cm vertically and horizontally.
- Wait for the solvent to evaporate (roughly 10–15 minutes).
- Apply BETONSEAL MS 2.0 with a round-tip trowel to make a fillet with roughly 15 mm diameter.
- Wet on wet, apply BETONGUAINA.

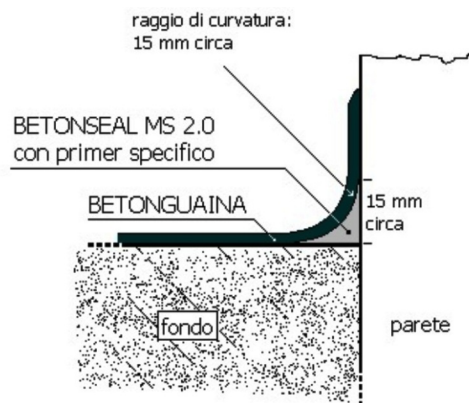


Figure 3 – Treatment of the vertical overlaps (FILLETS)

## ►► Treatment of through structures

Pass-through structures (pipes, bars, rebars, etc.) must be treated after preparing the substrate and before the application of BETONGUAINA.

Below are the treatment methods that depend on the material of which they are made.

### → PLASTIC OR NON-RUSTED METAL STRUCTURES:

- Sand.
- Remove dust and oiliness with.
- Apply one coat of BETONSEAL PRIMER (see Technical Sheet).
- Make a fillet with radius of curvature of roughly 15 mm in the corner formed by the through structure with the laying surface, by applying BETONSEAL MS 2.0 (see Technical Sheet).
- Wet on wet, apply BETONGUAINA.

### → RUSTED METAL STRUCTURES:

- Apply REDOX (see Technical Sheet).
- Wait one day.
- Rub the surface with a steel brush.
- Application of one coat of BETONSEAL PRIMER (see Technical Sheet).
- Make a fillet with radius of curvature of roughly 15 mm in the corner formed by the through structure with the laying surface, by applying BETONSEAL MS 2.0 (see Technical Sheet).
- Wet on wet, apply BETONGUAINA.

# BETONGUAINA

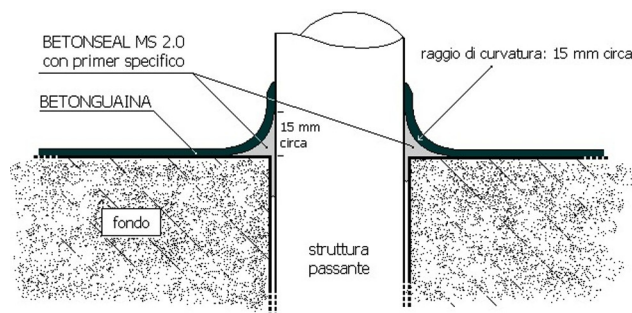


Figure 4 – Treatment of through elements

## ►► Laying of gutters and flashing

The purpose of the cycle mentioned below is to guarantee the correct drainage of water before BETONGUAINA is applied and to cancel the effects of the expansion of the metal wing of gutters and flashing.

- Using a diamond cup grinder, make a recess in the screed measuring roughly 3 mm in the area where the gutter support wing will be placed (the recess depth must take into account a space for the sealant of roughly 1 mm above the wing and a width equal to the size of the wing plus roughly 1 cm).
- Fasten the gutter or flashing mechanically to the screed.
- Apply one coat of NORPHEN FONDO IGRO only on the screed's recessed zone that remains free and treat the upper side of the object's wing with BETONSEAL PRIMER.
- Wait for the solvent to evaporate (10–15 minutes).
- Apply BETONSEAL MS 2.0 on the recessed section and above the wing of the gutter.
- Wet on wet, apply BETONGUAINA.

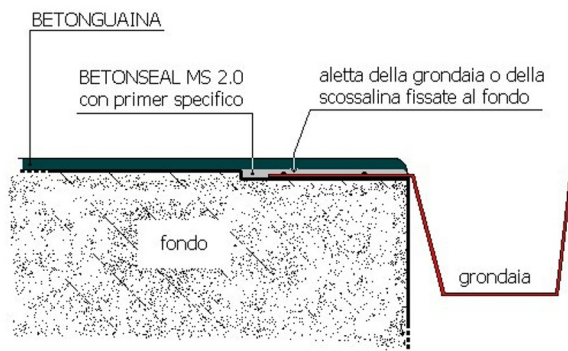


Figure 5 - Preparation of the substrate for the laying of gutters and flashing

## ►► Treatment of previously laid gutters and flashing

The purpose of the cycle mentioned below is to guarantee the correct drainage of water before BETONGUAINA is applied.

- Rectify the slope of the floor with GROVE MASSETTO and GROVE PRIMER taking care to first position a ruler (metal, wood or plastic) with 1 cm width and roughly 3 mm thickness, placed on the free edge of the gutter's wing.
- Remove the metal line and wait until GROVE MASSETTO cures.
- Apply one coat of NORPHEN FONDO IGRO only on the floor zone enclosed between GROVE MASSETTO and the edge of the gutter (the zone previously occupied by the line).
- Treat the upper side of the gutter wing with BETONSEAL PRIMER.
- Wait for the solvent to evaporate (10–15 minutes).
- Apply BETONSEAL MS 2.0 on the recessed section and above the wing of the gutter.
- Wet on wet, apply BETONGUAINA.

## BETONGUAINA

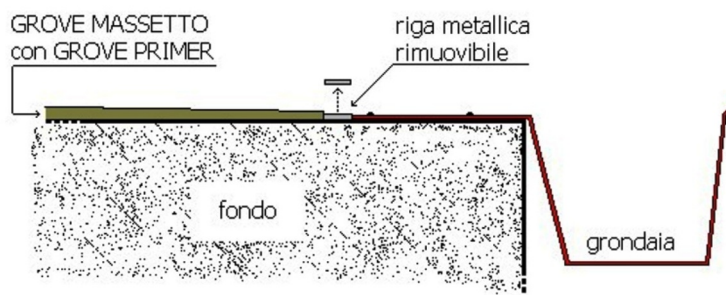


Figure 6 - Preparation of the substrate with previously laid gutters and flashing: slope correction.

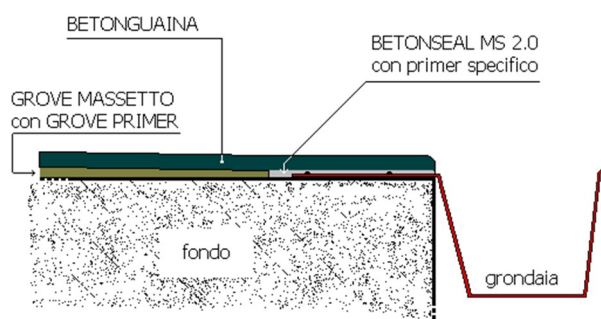


Figure 7 - Preparation of the substrate with previously laid gutters and flashing: sealing and laying BETONGUAINA.

### ►► Treatment of downpipes

We recommend using PVC drains and downpipes with perforated flange. BETONGUAINA adheres perfectly to PVC downpipes treated with BETONSEAL PRIMER and coated with BETONSEAL MS 2.0.

Below are the substrate treatment methods.

- Create a recess 2.0–2.5 mm thick in the surface of the cement to be waterproofed, centred around the drain, suitable for containing the downpipe flange (see picture below).
- Apply one coat of NORPHEN FONDO IGRO on the cement surface and treat the front and upper sides of the flange with BETONSEAL PRIMER.
- Wait for the solvent to evaporate (10–15 minutes).
- Apply a thick layer of BETONSEAL MS 2.0 on the recessed section of the cement.
- Position the downpipe and press the flange downwards to make the sealant emerge and spread it uniformly above the flange.
- Wet on wet, apply BETONGUAINA.

The same procedure can be adopted also for laying corner downpipes.

NORD RESINE proposes a series of special plastic and stainless steel downpipes suitable for use with BETONGUAINA.

# BETONGUAINA

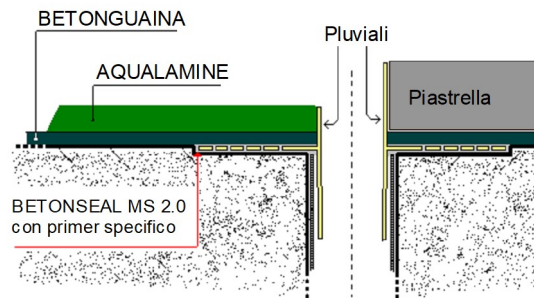


Figure 8 - Preparation and application of the downpipes.

## ►► Treatment of structural expansion joints

To prepare the substrate at the thermal expansion joints, proceed as described below.

- Use a grinding wheel to chamfer the sharp edges of the 45° joint.
- Cut, off-site, a strip of NYCON F reinforcement roughly 15 cm wide.
- Treat the area of the substrate to be coated with NORPHEN FONDO IGRO.
- Wait for the solvent to evaporate (10–15 minutes).
- Impregnate the piece of reinforcement until saturated, on both sides, with BETONSEAL MS 2.0 using a steel trowel.
- Place the piece thus obtained over the joint and push it down until a cavity forms that can contain a cylindrical cord made of expanded extruded material of adequate diameter, that is 2–3 mm wider than the joint.
- Cover the joint cavity and the cord by placing, above the previous one, another strip of NYCON F impregnated as explained above.
- Wet on wet, apply BETONGUAINA leaving the joint free.
- If necessary, protect the sealed joint by gluing protective flashing to the membrane with BETONSEAL MS 2.0, after first treating the bonding area with BETONSEAL PRIMER.

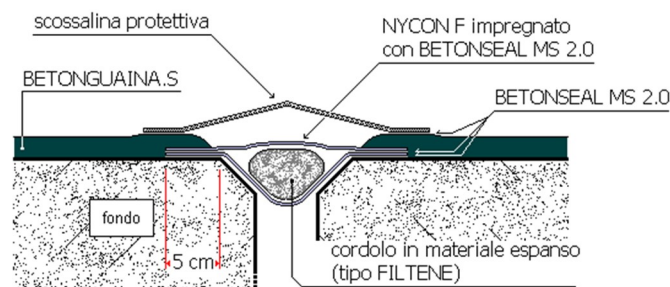


Figure 9 - Creation of the structural expansion joints.

## Preparing the product

- Homogenise BETONGUAINA Component A with a low-speed professional mixer.
- In a service container pour roughly half of Component A.
- Pour the entire bag of Component B into the service container.
- Mix thoroughly until obtaining a homogeneous lump-free mix.
- Add the rest of Component A (liquid).
- Mix again.
- Proceed with the application of BETONGUAINA.

## Application of the product



# BETONGUAINA

## ► Application of BETONGUAINA

### ►► Vertical overlaps

To waterproof vertical overlaps, proceed as described below.

- Cut from the roll a strip of NYCON F reinforcement of roughly 20 width (or use pre-cut NYCON F strips in rolls).
- Apply BETONGUAINA using a block brush, distributing the product both vertically and horizontally; position the reinforcement then impregnate the surface until it is saturated.
- If there are any special points (sub-thresholds, acute and convex corners, etc.) requiring a greater adaptability of the reinforcement, it is possible to use double-layer VETROMAT 22 reinforcement strips.
- Subsequently, apply BETONGUAINA with the NYCON 100 reinforcement also on the horizontal surface.

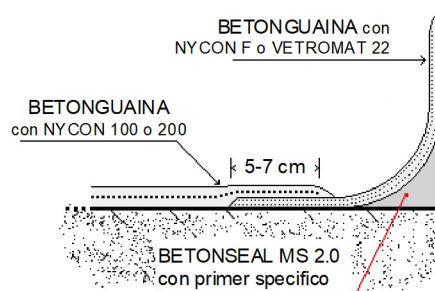


Figure 10 - Waterproofing of vertical overlaps and flat surfaces.

### ►► Through structures

To waterproof pass-through structures, proceed as described below.

- Cut from the roll a few strips of VETROMAT 22 reinforcement of roughly 20 width.
- Apply, using a block brush, BETONGUAINA (A+B) on the overlap to be made and on the BETONSEAL MS 2.0 fillet just made.
- Position the reinforcement and impregnate it to saturation wet-on-wet.
- Repeat the operation with another strip of VETROMAT 22 within roughly 1 hour (at 20°C).
- Subsequently, apply BETONGUAINA with the NYCON 100 reinforcement also on the horizontal surface.

### ►► Flat or sloped surfaces (with slope below 5%)

To waterproof surfaces, proceed as described below.

- Cut from the roll a few pieces of NYCON 100 of maximum 10 m length.
- Pour BETONGUAINA (A+B) onto the laying surface and spread, using a steel saw-tooth trowel (e.g. model 814/D-08), a quantity equal to roughly 1.5/1.8 kg/m<sup>2</sup> then immediately place the NYCON 100 reinforcement above it.
- Using the float or the plastering trowel, make NYCON 100 adhere perfectly to the laying surface with vigorous trowel strokes on the reinforcement: in this way, BETONGUAINA (A+B) will start to impregnate the reinforcement from bottom to top.
- Pour more BETONGUAINA (A+B) on the reinforcement to complete its impregnation.

The possible formation of bubbles on the covering during the drying phase may be due to several reasons.

→ The substrate was not treated with a sufficient amount of product to completely impregnate the reinforcement from bottom to top.

→ the laying substrate is not perfectly smooth and has small depressions.

### ►► Creation of overlays

To ensure a correct execution, the reinforcement strips must be overlapped by at least 3–5 cm.

→ DAILY JOINT: a “daily joint” refers to a new cast of BETONGUAINA applied on the existing product laid at least 4 hours ago.

- To ensure that the new layer adheres to the existing one, on the part of the product to be coated it is sufficient to apply one coat (80–90 g/m<sup>2</sup>) of FONDO C60 on the zone where the overlap must be made, from 20 to 5 minutes before performing this operation.
- Recast by applying BETONGUAINA and overlapping the part treated with FONDO C60.

# BETONGUAINA

## ▶▶ Waterproofing of broad structures or structures subject to heavy loads

If very large surfaces or structures subject to heavy loads such as roof gardens or car parks must be waterproofed, a further application cycle with reinforced BETONGUAINA must be carried out the day after laying the first layer.

## ▶ Curing times

→ Minimum curing time:

- 24 hours during summer, with temperatures exceeding +20°C.
- 15 days during winter, with temperatures hovering around 0°C.

→ Maximum curing time before the application of possible finishes:

- No limit.

## ▶ Top coats on BETONGUAINA

- Both the finishes and the tiling inhibit the capacity of BETONGUAINA to expel vapours.
- If the product is applied on damp surfaces, it is necessary to calculate the time it takes the dampness to escape through the layer of BETONGUAINA before proceeding with the finishes.
- The top coats applicable to the waterproofing membrane made with BETONGUAINA vary in relation to the intended use of the treated structure.

A few examples are indicated below.

### → WALK-OVER BARE WATERPROOFING

For a coloured finish in case of light pedestrian traffic, apply, on sufficiently dry BETONGUAINA, one coat of BETONCOLOR with a roller (see Technical Sheet).

### → WALK-OVER BARE WATERPROOFING OF HIGH AESTHETIC QUALITY

Proceed with the application of the AQUALAMINE system.

### → WALK-OVER WATERPROOFING WITH ACCESS TO LIGHT VEHICLES

It is possible to apply the STONE EASY system, a quartz coating that is extremely resistant to scratching and abrasion, provided that the laying surface is not subject to cracking and the joints are lined up on the surface.

### → DIRECT BONDING OF TILES

On the layer of BETONGUAINA, lay the tiles using the specific adhesive BETON-H 1 with an average consumption of 2.5–4.0 kg/m<sup>2</sup>.

It is of crucial importance to consider the fact that IN EXTERIORS:

- The product should not be applied on tiles larger than 900 cm<sup>2</sup>.
- That the tiles must be laid with large gaps in between (5–6 mm).
- The skirting board (if present) must remain detached from the underlying tile with a gap not inferior to 5 mm (to be sealed with NORDSIL AC).
- The fractionation joints of the screed beneath the tile must be lined up and sealed with NORDSIL AC.

## Consumption

type of application	minimum consumption	maximum consumption	UoM	notes
For horizontal and slightly sloping surfaces	2,2	2,8	kg/m <sup>2</sup>	final thickness of the cured film from 1.2 mm (minimum) to 1.5 mm (maximum)
For vertical surfaces	1,2	1,2	kg/m <sup>2</sup>	final thickness of the cured film equal to 0.7 mm

## Cleaning of tools

- Wet product: clean with water (including a power wash).
- Hardened product: remove mechanically and/or soak in solvents (acetone, nitro thinner or thinner for synthetic products).

# BETONGUAINA

## Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Density (A+B) at 23°C, 50% R.H., EN ISO 1675	kg/L	1,49 ± 0,05
Pot-life (viscometric), EN ISO 9514	hours	10 ± 3

► APPLICATION DATA AND FINAL PERFORMANCES	UoM	value
Mix ratio by weight (A:B)	-	2 : 1
Open time (at 20°C, 50% R.H.)	min	8 ± 2
Minimum film-forming temperature (MFFT)	°C	0 *
Surface drying time (20°C, 50% R.H.), EN ISO 9117-3	hours	6 ± 1
Impermeability to water (1,000 mm water column, time 24 hours), reinforced with NYCON 100, EOTA TR003	-	No penetration
Permeability to water vapour (μ), DIN 52615	-	1500 ± 200
Rupture load (traction) at +23°C with NYCON 100 reinforcement, EN ISO 527-3	N/5 cm	> 200
Elongation at break (traction) at +23°C with NYCON 100 reinforcement, EN ISO 527-3	-	> 50
Crack-bridging capacity, EOTA TR013	°C	- 20 ± 2
Peel strength at 180° (180° peeling) on concrete, EN 28510-2	N	> 40
Peel strength at 180° (180° peeling) on ceramic, EN 28510-2	N	> 95
Resistance to freeze-thaw cycles (number of cycles)	-	> 100

► TECHNICAL DATA IN CONFORMITY TO EN 1504-2	UoM	value
Permeability to CO <sub>2</sub> , equivalent air layer thickness SD(CO <sub>2</sub> ), with NYCON 100 reinforcement, thickness 1.27 mm, EN 1062-6	m	352 ± 16
Permeability to water vapour, equivalent air layer thickness SD, with NYCON 100 reinforcement, thickness 1.47 mm, EN ISO 7783	m	7.3 ± 0.5 (class II)
Direct tensile adhesion, with NYCON 100 reinforcement, EN 1542	MPa	1,00 ± 0,09
Capillary absorption and permeability to water, with NYCON 100 reinforcement, EN 1062-3	kg/(m <sup>2</sup> ·√h)	0,0070 ± 0,0001
Classification as per EN 1504-2	-	PI (1.3) - MC (2.2) - IR (8.2)

► TECHNICAL DATA IN CONFORMITY TO EN 14891	UoM	value
Initial tensile adhesion with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.6.2	MPa	0,7 ± 0,07
Impermeability to water under pressure (1.5 bar for 7 days positive thrust) with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.7 **	-	No penetration
Durability based on tensile adhesion after contact with water with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.6.3	MPa	≥ 0,5
Durability based on tensile adhesion after thermal ageing with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.6.5	MPa	≥ 0,5
Durability based on tensile adhesion after freeze-thaw cycles with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.6.6	MPa	≥ 0,5
Durability based on tensile adhesion after contact with lime water with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.6.9	MPa	≥ 0,5
Crack-bridging capacity at -23°C with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.8.2	mm	3,4 ± 0,2
Crack-bridging capacity at -20°C with NYCON 100 reinforcement and C2 adhesive, EN 14891 – A.8.3	mm	2,5 ± 0,2
Classification as per EN 14891	-	CMO2P

\* the value specified refers to the product's capacity to form the film correctly at a temperature close to the freezing temperature of water at the atmospheric pressure (between +0.1 and +0.2°C).

\*\* test report 20146084/3 – MODENA TESTING CENTRE).

## Storage of the product

- 24 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +30°C.
- Protect the product against frost.

# BETONGUAINA

## Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
-	(A+B) da 10 kg	NO	-	A = 6,67 kg (fustino) B = 3,33 kg (sacchetto)
-	(A+B) da 20 kg	NO	-	A = 13,33 kg (fustino) B = 6,67 kg (sacchetto)
-	comp. A da 6,67 kg	NO	60 fustini	A = 6,67 kg (fustino)
-	comp. A da 13,33 kg	NO	44 fustini	A = 13,33 kg (fustino)
-	comp. B da 3,33 kg	NO	-	B = 3,33 kg (sacchetto)
-	comp. B da 6,67 kg	NO	-	B = 6,67 kg (sacchetto)

Legenda ADR:  
NO = merce NON PERICOLOSA

## LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website [www.nordresine.com](http://www.nordresine.com) contains the latest revision of this datasheet.

## EDITION

Issue date: 05.04.1998

Revisione: 20.09.2019