

STARFLEX ULTRA FR

ONE COMPONENT MOISTURE CURING THIXOTROPIC LIQUID MEMBRANE



CHARACTERISTICS

Adheres to any substrate: **sheath, PVC, concrete, metal**, etc.

Certified durability up to **30 years** (ETA and BBA).

Resistant to wind, sun, snow and other bad weather.

Reduce laying time by up to 50%.

Elasticity > 600%.

Rain proof after 1 hour.

Suitable for waterproofing under tiles.

Suitable for **photovoltaic systems** (BROOF T4).

Quick and easy application by brush, roller and airless spray.

Wet-on-wet applicable system.

Excellent **mechanical** traction and shear characteristics.

High walking resistance.

Safe product certification according to REACH regulation.

Contributes to obtaining credits for **LEED** certification.

APPLICATION TEMPERATURE

Ambient application temperature: from **+5 °C to +35 °C**, R.H. 85% max, at least 3°C above the dew point.

OPERATING TEMPERATURE

Working temperatures from **-30°C to +80°C** in air (+200°C for short periods).

APPLICATION FIELDS

- Waterproofing with or without reinforcement of:
 - Roofs, terraces and balconies
 - Floors, substrates and wet areas
 - Roof gardens
 - Renewal of old membranes
 - Roof construction details
 - Waterproofing under tiles
 - Water containment tanks
 - Roofs with photovoltaic systems

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LAYING SURFACE PREPARATION

- The surfaces to be treated must be **sound, compact, free from dust and pollution** from foreign substances (dirt, oil, grease, release agents, etc.).
- The cement substrate, after adequate mechanical preparation, must have a **surface resistance** to top tearing greater than **1.5 MPA**, measured using suitable instruments.
- In the case of **ceramic substrates** or **old resinous coatings**, after adequate mechanical preparation, their correct adhesion to the substrate and the absence of traces of pollutants must be checked.
- In the case of **vertical substrates** (bathtubs, swimming pools, tanks, etc..) the preparation can be carried out by dry or wet sandblasting, or high pressure hydro-washing (300 bar).

It is essential to **roughen** and/or **wash** the surface before laying. The choice of the mechanical preparation method (sandblasting, sanding, smoothing, shot peening or milling) is to be chosen on the basis of the conditions of the substrate and the type of coating to be used.

BITUMINOUS MEMBRANES: substrate preparation carried out using medium and high pressure water washing (> 300 bar), to have a clean substrate free from any pollutant. Application of **PRIMER 0230**, polyurethane primer specially formulated for laying "moisture-curing" waterproofing membranes. Indicative consumption of product 150 g/m². Also available in the ultra-fast **PRIMER 0230R** version. As an alternative, application by roller or airless spray of **STARCEMENT 5/A** two-component epoxy resin-based primer in water dispersion, with a consumption of 0.1 kg/m² diluted in a 1:1 ratio with water, with the aim of consolidating the layer protective slate of the bituminous membranes.

TILES: thorough cleaning of the substrate with detergents and light sandblasting, smoothing or shot peening. Subsequent application by roller or airless spray of **DUROGLASS FF4416** two-component anti-corrosion primer with adhesion on metal surfaces and different materials, with a consumption of 0.2 kg/m². Alternatively, use **DUROGLASS P1/2**, two-component, solvent-free epoxy anchoring agent for thick skim coats (starting from 0.3 kg/m²).

CONCRETE: substrates must be sound, dry, free from loose layers, dust, pollution. Cleaning can be done by sandblasting, pressure washing, shot peening. Application by roller or airless spray of **DUROGLASS FF4416** two-component corrosion resistant primer with adhesion on different types of substrates, with a consumption of 0.2 kg/m².

Alternatively, use **PRIMER 0260**, a one-component, quick-solvent polyurethane (150-200 g/m²). For thick smoothing, use **DUROGLASS P1/2**, two-component, solvent-free epoxy anchor (starting from 300 g/m²).

WET SURFACES: substrate preparation carried out by high pressure water washing (> 250 bar) or sanding followed by vacuuming of the resulting dust. Application of two coats of special three-component primer based on epoxy resins for the preparation of damp concrete surfaces **DUROGLASS FU BIANCO TIX** diluted 15% with water, with an indicative consumption of 0.5 kg/m² per coat. Alternatively, application of a two-component, epoxy resin-based **DUROGLASS FU RAPID** primer, diluted 15% with water, with an indicative consumption of 0.50 kg/m² and subsequent dusting of quartz with a particle size of 0.1-0.3 mm.

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WOOD: application of **PRIMER 0230**, a polyurethane anchor specially formulated for laying "moisture-curing" waterproofing membranes. Indicative consumption of product 150 g/m².

ALUMINIUM+IRON: Application by roller or airless spray of **DUROGLASS FF4416** two-component corrosion resistant primer with adhesion on different types of substrates, with a consumption of 0.2 kg/m². If necessary, perform subsequent manual gluing of self-adhesive butyl band covered with non-woven fabric on the overlaps of the sheet metal in the direction perpendicular to the slope of the roof, with the aim of distributing the tensions.

PVC/TPO/EPDM: preparation of the substrates carried out by high pressure water washing (> 300 bar), to have a surface free from any pollutant, suitable for the subsequent application of the waterproofing system. Application of **PRIMER 0130** single-component, flexible adhesion promoter based on polyurethane resins, with a consumption of 0.15 kg/m².

Alternatively, application of **DUROGLASS FF4416** two-component anti-corrosion primer with adhesion on different types of substrates, with a consumption of 0.2 kg/m².

PRODUCT PREPARATION

Single-component product ready to use after careful homogenization with a low-speed stirrer.

DILUTION AND COLOUR

It is absolutely not recommended to use alcohol or other solvents.

It is recommended to use **DILUENTE 15**.

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PRODUCT APPLICATION

STARFLEX ULTRA FR can be applied both as a reinforced and without reinforcement

system. The product can be applied:

- Brush
- Roller (essential for armed treatments)
- Airless spray using pressures of 250-300 bar and nozzles 2" - 0.3 inches"

As a non-reinforced waterproofing coating: apply at least two coats of product with a consumption of 1-1.2 Kg/m² per coat, with an interval of 6 hours to a maximum of 48 hours. Up to 1 Kg/m² per coat can be applied vertically without reinforcement.

As a reinforced waterproofing system: application of the first coat of **STARFLEX ULTRA FR** waterproofing membrane with an indicative consumption of **1.5 kg/m²**. Apply a layer of **STARTEX NW** or **STARTEX NW DETAILS** polyester fabric on fresh, making sure it adheres perfectly to the underlying waterproofing layer and then apply a second coat of **STARFLEX ULTRA FR** waterproofing membrane with an indicative consumption of **1.0 Kg/m²**.

In the case of localized repairs, apply the product also in a single coat with a consumption of approximately **1.5 kg/m²** and any reinforcement using **STARTEX NW DETAILS** fabric.

Waterproofing under tiles: application of the first coat of **STARFLEX ULTRA FR** waterproofing membrane at a rate of **1.2 kg/m²**. Application of a layer of **STARTEX NW** or **STARTEX NW DETAILS** polyester fabric on fresh coat, taking care to make it adhere perfectly to the underlying waterproofing layer and subsequent application of the second coat of **STARFLEX ULTRA FR** waterproofing membrane at a rate of **1.0 Kg/m²**. On the fresh dusting of quartz with a grain size of at least 0.1-0.5 mm in order to create a correct grip for the tile glue.

In all the processes mentioned above, it is also possible to use the **STARTEX GM** fiberglass reinforcement fabric.

OVER APPLICATION

The **STARFLEX ULTRA FR** product can be overcoated with any type of single-component or two-component polyurethane and polyurea liquid membrane.

After a minimum of 24 hours and a maximum of 48 hours, a non-yellowing coloured protection such as **STARFLEX MONO TOP** can be applied on the waterproofing layer at a rate of **0.15 – 0.4 Kg/m²**. As an alternative, application of a two-component, elastic finishing coat based on UV resistant aliphatic polyurethane resins such as **POLISTAR E/P**, with an indicative consumption of **0.15 kg/m²**.

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WARNINGS AND PRECAUTIONS

- the product is moisture curing. The speed of hardening is strongly influenced by the relative humidity in the environment.
- To improve moisture removal from the installation surface, the installation of vaporizers every 50 m² is strongly recommended. These help prevent moisture buildup under the waterproofing membrane, reducing the risk of damage or material lifting due to trapped moisture.
- In the case of particularly rough or absorbent substrates, a higher material consumption than the standard may be required.
- Consider applying a thicker first coat of the product depending on the installation surface.
- Do not walk on the reinforcement once it has been applied for the next 12 hours.

SAFETY AND CLEANLINESS

When applying these products, it is recommended to use goggles, masks and rubber gloves and all the PPE required by current regulations.

Clean the tools thoroughly after use with **DILUENTE 15**.

For more information regarding the precautions for use, please refer to the safety data sheet.



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LAYING

STAGE 1



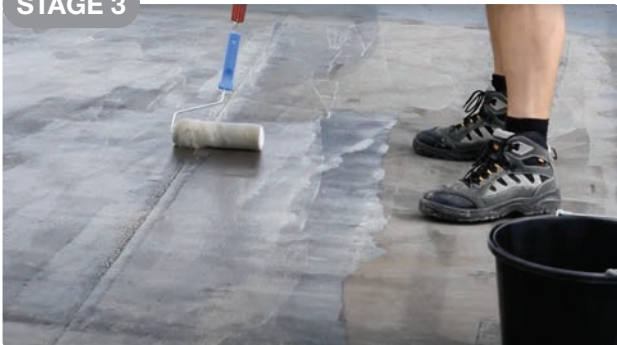
Cleaning of the laying surface and arrangement of the existing one.

STAGE 2



Reinforcement of the perimeter and construction details with **STARFLEX** liquid membrane and **STARTEX NW DETAILS** fabric.

STAGE 3



Application of **specific primer** for the existing laying surface.

STAGE 4



First coat application of **STARFLEX** liquid membrane.

STAGE 5



Placement of **STARTEX** fabric.

STAGE 6



Application of a second coat of **STARFLEX** liquid membrane.

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TECHNICAL DATA		
Colour		Grey
Specific weight	UNI EN ISO 2811-1	1.47 ± 0.04 g/ml
Non-volatile substances	UNI EN ISO 3251	84±1 % in volume
Theoretical consumption		2,000 – 2,500 g/m ²
Thickness		1,000 – 1,250 µm
Curing at 22°C, 50% R.H.		- track free: 6-8 hours - rain resistance: 1-2 hours - over-applicable: 24 hours maximum - fully cured: 10 days
Permeability to carbon dioxide	EN 1062-6	SD > 50m
Permeability to water vapour	UNI ISO 7783-2	Sd < 5 m
Capillary absorption and water permeability	UNI EN 1062-3	< 0.1 kg/m ² · h ^{0.5}
Resistance to direct tensile stress	UNI EN 1542	> 1.5 MPa
Tensile strength	UNI EN 12311-2	> 6 MPa
Elongation to breakage	UNI EN 12311-2	> 600 %
Shore A hardness	EN ISO 868	70
Initial bond under tile	UNI EN 14891	> 0.5 Mpa
Bond after immersion in water	UNI EN 14891	> 0.5 MPa
Storage		The product in its original sealed packaging kept in a dry and protected place at temperatures between +5°C and +35°C will keep for 12 months.

The data and instructions given in this sheet, based on the best practical and laboratory experiences, are to be considered in any case indicative. Considering the different conditions of use, and the intervention of factors independent of MPM (support, environmental conditions, technical laying direction, etc.) whoever intends to use it is required to establish whether or not the product is suitable for use. Our warranty obligation is limited to the quality and constancy of the finished product for the above data, only for technical sheets accompanied by stamp and countersignature by our delegated personnel. site. Furthermore, the customer is required to verify that these values are valid for their relevant batch of product and are not superseded and/replaced by subsequent editions and/or new formulations. The data contained may vary at any time without prior notice by MPM.