

# icoper<sup>®</sup>

## GOLD

**CE certified, ready to use, seamless  
waterproofing membrane in water  
dispersion based on elastomeric resins.**



## TECHNICAL DATA SHEET



# icoper gold



UV Resistant

ETA-10/0299  
ETA



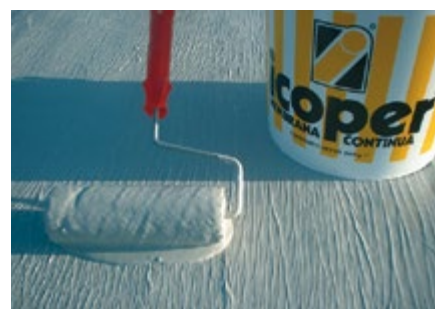
ICOPER GOLD is the original, ready to use, colored, seamless waterproofing membrane, CE certified by European Technical Assessment ETA 10/0299, recommended for protecting buildings from rainwater damage.

Thanks to its highly versatile polymeric matrix, ICOPER GOLD is suitable for waterproofing numerous substrates such as flat and sloped roofs, concrete slabs, fiber cement, old built-up bitumen roofing, tiles, sheet metal and metal substrates in general.

The resulting, ponding-water resistant membrane is seamless and effective even on irregularly shaped substrates, unlike traditional bitumen-polymer membranes.

ICOPER GOLD is a water-based, solvent-free chemical compound.

Once cured, it possesses extremely high UV resistance and is therefore suitable for exposed waterproofing.



## Uses

ICOPER GOLD is recommended for waterproofing flat and sloped roofs or complex shapes, whether in new construction or renovation. It is also intended for waterproofing newly built or existing terraces and balconies.

It renovates old bitumen roofing membranes without removal (both smooth-surfaced and mineral-surfaced) and protects metal substrates, fiber cement sheets and timber structures.

In addition, ICOPER GOLD can be used to protect and waterproof retaining and foundation walls, gutters, ledges, eaves, chimneys, facades, PU-foam insulated roofs, planter boxes, green roofs and roof gardens.



## Features / Benefits

- Recommended for low-slope and flat roofs thanks to its ponding water resistance.
- Suitable for under-tile waterproofing of terraces and balconies.
- 400% Tensile Elongation.
- Walkable for ordinary maintenance.
- Anti-carbonation to protect reinforced concrete.
- Certified Broof (t1) in accordance with EN 13501-5.
- One component, ready to use, quick, safe and easy to apply.
- Low VOC.
- Contributes to obtaining LEED® credits.
- Excellent UV resistance: no topcoat required.
- Appropriate resistance to industrial and marine environments.
- Opened packaging can be resealed and stored for further use.



## Surface preparation

- Clean thoroughly and remove dust, loose material or non-adhering particles, grease, oil, formwork release agents and any contaminant that may affect proper adhesion.
- Substrate must be cured, clean, dry, sound, solid and not exposed to rising damp, negative hydrostatic pressure or evaporative flows.
- Joints and substrate cracks must be treated appropriately as per industry standards: control and isolation joints, floor-to-wall as well as any vertical transitions must be sealed with ICOJOINT MS silane modified polymer or with the self-adhesive sealing BUTYL TAPE.
- Check for proper operation of rainwater drains and roofing details in accordance with Norm EN 12056.

- **Concrete:** make sure surface finish is appropriate and suitable to accommodate waterproofing. Allow newly placed concrete to cure fully. New substrates must be primed with a coat of ICOPER GOLD diluted with 50% water applied at a rate of approximately 300 gr/m<sup>2</sup>.

Existing concrete or porous substrates, once the surface has been cleaned and repaired, must be treated with the one-component ICOFISS bonding primer at a rate of approximately 250 gr/m<sup>2</sup>.

Consider applying to lightweight concrete slabs according to their nature and water absorption rate. Ensure that the surface is smooth, dry and dimensionally stable; even out by using a controlled shrinkage mortar and apply the ICOBLOK two-component epoxy primer (see TDS).

- **Bitumen:** clean thoroughly and remove chipped or flaking protective paint. Check for proper bonding to the substrate, especially in the upstands and seams that must be torched down if not in full adhesion. Built-up roofs that tend to delaminate or creep need to be repaired by removing the affected area and patching it with a portion of fresh bitumen membrane.

Prime smooth-surfaced bitumen with ICOFISS applied by brush or roller at a rate of 100 gr/m<sup>2</sup>.

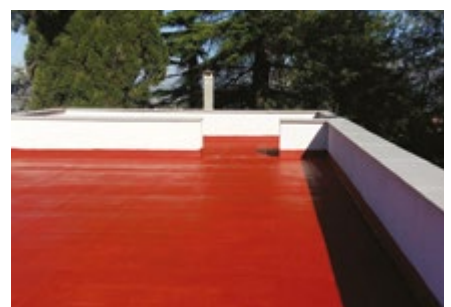
Mineral-surfaced membranes must be primed with a coat of ICOPER GOLD diluted with 50% water applied at a rate of approximately 300 gr/m<sup>2</sup>.

Given the tensions that may develop on bitumen substrates, it is recommended to reinforce the waterproofing layer with the ICOARM TNT ROLL nonwoven geotextile embedded between first and second coat.

- **Metal:** Remove oxidized spots and apply ICOPOX PM 102 rust inhibiting primer at a rate of 150 gr/m<sup>2</sup>.

No priming is required when applying to rust-free, pre-painted metal sheets.

Seal overlaps, fixing points and waterproofing details with the self-adhesive sealing BUTYL TAPE placed over the seams.





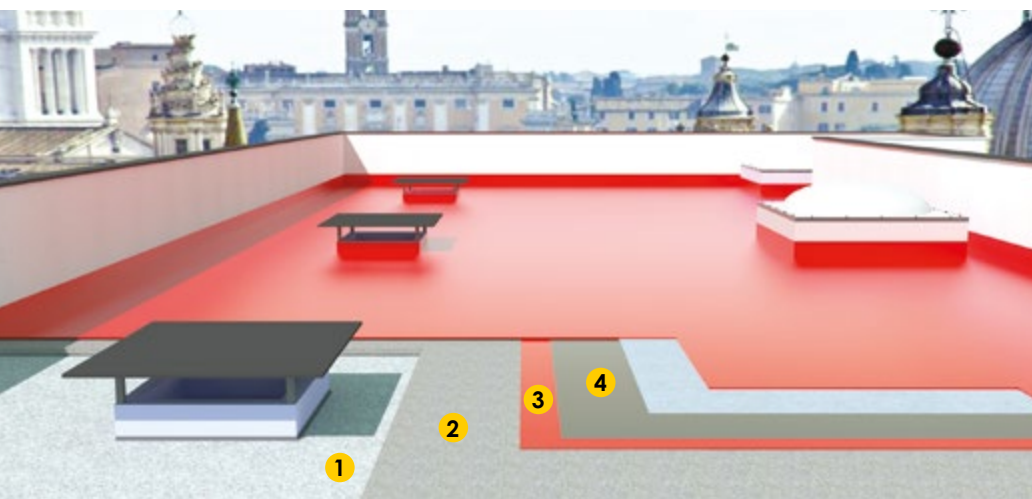
- **Tiles:** Check the condition of tile grout, remove and replace any loose or missing tile portions. Consider possible need for the specific EXIT AIR vent pipes. Treat with ICOFORCE bonding primer at a rate of 300 gr/m<sup>2</sup>.
- **Timber:** Remove dust, splinters and flaking paint. Substrate must be sound and dimensionally stable. Sand surface accurately if varnished. Treat with ICOFISS bonding primer (coverage according to substrate absorption). Always reinforce with the ICOARM TNT ROLL nonwoven geotextile embedded between first and second coat.



## Application instructions

Once the substrate has been accurately prepared and the primer has properly dried, apply two or more coats of ICOPER GOLD at an overall rate of not less than 2 kg/m<sup>2</sup> using a roller, brush or airless spray machine. The use of contrasting colors for successive coats helps making sure that a correct spread rate is achieved. Allow to cure before applying the next coat.

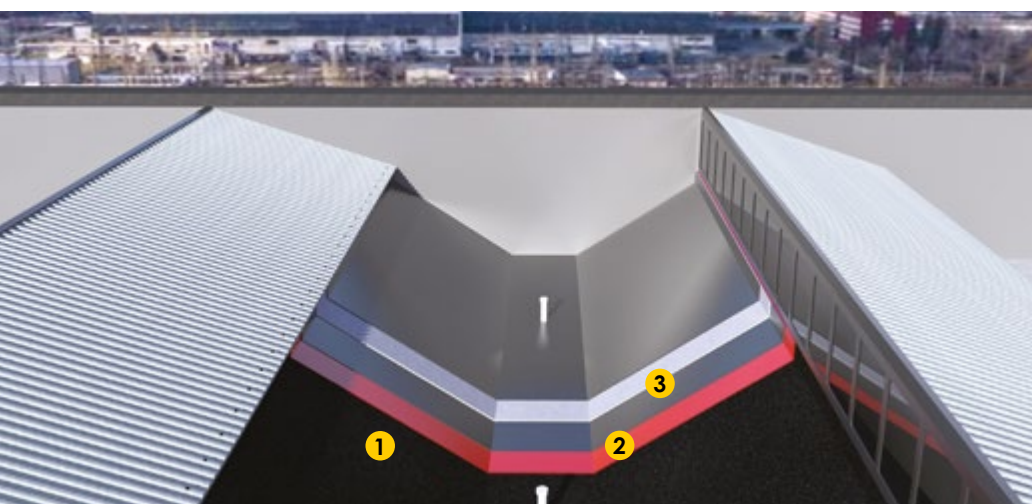
The areas that are potentially subject to extra mechanical strain should be reinforced with the ICOARM non-woven fabric. The waterproofing must be turned up and terminated at least 10 cm on any adjacent vertical surfaces. Tools can be cleaned with water while product is fresh or with nitro thinners once hardened.



### Walkable flat roof

#### BUILD UP

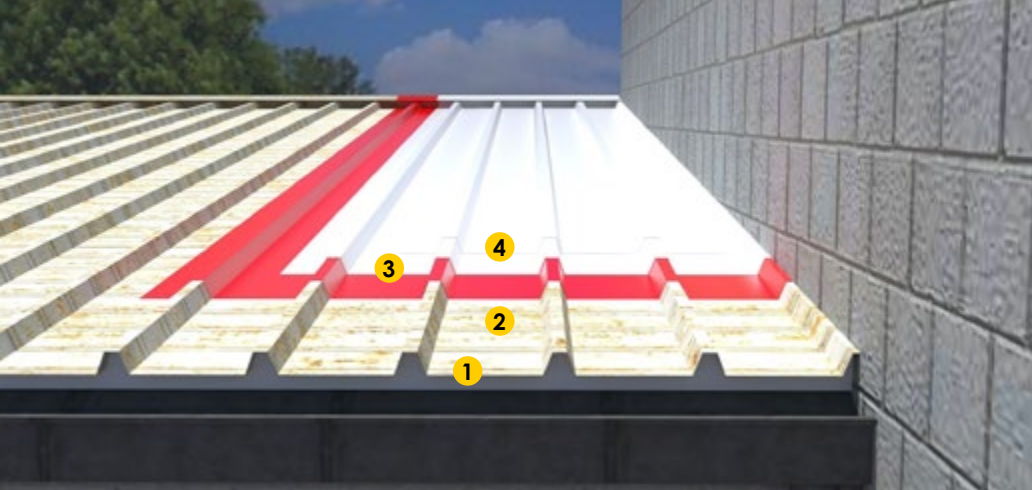
- 1) Load carrying element: roof slab
- 2) Slope layer: reinforced concrete screed
- 3) Primer: ICOPER GOLD diluted with water
- 4) Waterproofing: ICOPER GOLD (reinforced with ICOARM TNT)



### Weathered built-up roof

#### BUILD UP

- 1) Old waterproofing layer: built-up bitumen roofing membrane
- 2) Primer: ICOFISS
- 3) New fully adhered waterproofing: ICOPER GOLD (reinforced with ICOARM TNT)



## Corrugated sheet metal

### BUILD UP

- 1) Load carrying element: steel beams
- 2) Substrate: insulated metal panels
- 3) Rust inhibiting layer: ICOPOX PM 102
- 4) Waterproofing: ICOPER GOLD



## Weathered tiled terraces and balconies

### BUILD UP

- 1) Bonding layer: existing stoneware tiles
- 2) Primer: ICOFORCE
- 3) Waterproofing: ICOPER GOLD (reinforced with ICOARM TNT)

## Precautions

- Apply at temperatures between +5°C and +35°C. Avoid applying during the hotter part of the day and to substrates excessively exposed to sunlight, both before and during application.
- Do not apply in case of rain, fog, dew, or if such weather conditions are imminent or expected during the curing period.
- Avoid applying ICOPER GOLD to substrates that are moist or subject to rising damp and/or evaporative flows. If needed, install the specific EXIT AIR vent pipes and use the ICOBLOK epoxy primer for damp substrates.
- Avoid applying thick layers in one coat.
- If a non-woven fabric is required, ensure that the same is properly saturated in order to minimize the risk of delamination.
- Ensure that the upstands are fully bonded to sound, finished substrates and renders.
- Temperatures and moisture affect drying/curing time. The latter may become considerably longer if the product is applied close to its minimum allowed temperature.
- The use of ICOROOF PUR protective coating (see TDS) ensures additional chemical resistance and thus a longer life expectancy in very aggressive conditions, such as industrial and marine environments.

## FOCUS ON CONCRETE PROTECTION

ICOPER GOLD features excellent waterproofing properties and very low carbon dioxide permeability; therefore, it serves as a safeguard against both water and CO<sub>2</sub> ingress in reinforced concrete structures and bridge decks in accordance with European Standard EN 1504-2 "Products and systems for the protection and repair of concrete structures".





## CE Marking for construction products

"When a construction product is covered by a harmonized standard or conforms to a European Technical Assessment which has been issued for it, the manufacturer shall draw up a declaration of performance when such a product is placed on the market" (CPR 305/11, art. 4).

"The CE marking shall be affixed to those construction products for which the manufacturer has drawn up a declaration of performance in accordance with Articles 4 and 6." (art. 8).

The Construction Products Regulation 305/11 (CPR) breaks down products into three categories:

1. Products that are fully covered by a harmonized standard;
2. Products that are not fully covered by a harmonized standard, for which the performance cannot be entirely assessed according to an existing harmonized standard, because in relation to at least one essential characteristic of that product:
  - the assessment method provided for in the harmonized standard is not appropriate;
  - the harmonized standard does not provide for any assessment method.
3. Products that do not fall within the scope of any existing harmonized standard.

For products of the first group, i.e. fully covered by a harmonized standard, a European Technical Assessment (ETA) cannot be issued; in fact, the manufacturer shall draw up a Declaration of Performance (DOP) in order to affix the CE marking.

In the remaining cases, those manufacturers that decide to declare the performance of their construction products are allowed to request a European Technical Assessment (ETA) from a Technical Assessment Body (TAB) on the basis of a European Assessment Document (EAD), formerly known as Guidelines for European Technical Approval (ETAG). The CE marking can then be affixed following the applicable Assessment and Verification of the Constancy of Performance (AVCP) provided for in the EAD.

A European Technical Assessment (ETA) is defined in CPR 305/2011 as "the documented assessment of the performance of a construction product, in relation to its essential characteristics, in accordance with the respective European Assessment Document".

## ETAG 005 – "Liquid applied roof waterproofing kits"

Liquid waterproofing products for roofs must comply with the relevant Guidelines for European Technical Approval (ETAG 005), as defined by Brussels-based European Organization for Technical Assessment (EOTA).

Based on the technical and scientific knowledge of its members, EOTA is in charge of issuing the European Assessment Documents (EADs) for construction products.

The main technical parameters identified by EOTA for the classification of liquid waterproofing products are as follows:

- expected working life.
- climatic zone of use.
- user loads.
- roof slopes.
- minimum surface temperatures.
- maximum surface temperatures.



**ICOPER GOLD IS THE FIRST ITALIAN MEMBRANE WITH A CE MARKING AS PER ETAG 005**



**CE** EUROPEAN CONFORMITY



**ETAG 005  
ETA-10/0299**



## Liquid-state certified quality

Icobit is once again at the top of acrylic formulations.

Having created the first Italian, ponding-water resistant membrane (Icoper), with ICOPER GOLD it was again first in obtaining the CE marking based on a European Technical Assessment.

ICOPER GOLD: superior Italian acrylic formulation.



USER LOAD (P)				
CATEGORY	P1	P2	P3	P4
Load type	Low	Moderate	Normal	Special

MINIMUM SURFACE TEMPERATURE (TL)				
CATEGORY	TL1	TL2	TL3	TL4
°C	+ 5	- 10	- 20	- 30

MAXIMUM SURFACE TEMPERATURE (TH)				
CATEGORY	TH1	TH2	TH3	TH4
°C	+ 30	+ 60	+ 80	+ 90

EXPECTED WORKING LIFE (W)			
CATEGORY	W1	W2	W3
Years	5	10	25

ROOF SLOPE (S)				
CATEGORY	S1	S2	S3	S4
%	< 5	5 - 10	10 - 30	> 30

CLIMATIC ZONE (M)		
CATEGORY	M	S
Annual radiant exposure on horizontal surface and average temperature of the warmest month of the year	Moderate (5 GJ/m <sup>2</sup> , T < 22°C)	Severe (5 GJ/m <sup>2</sup> , T > 22°C)

## PERFORMANCES according to ETAG 005

CHARACTERISTIC	MEASURE	STANDARD
Resistance to dynamic indentation	I <sub>1</sub>	EOTA TR-006
Resistance to static indentation	L <sub>1</sub>	EOTA TR-007
Resistance to fatigue movement	Pass	EOTA TR-008
Resistance to low temperature: dynamic indentation at -30°C	I <sub>1</sub>	EOTA TR-006
Resistance to high temperature: static indentation at +80°C	L <sub>1</sub>	EOTA TR-007
Tensile strength at break	0.42	EN-ISO 527-3
Tensile elongation at break	317	EN-ISO 527-3
Resistance to heat aging after 50 days at +80°C		EOTA TR-011
Resistance to dynamic indentation (-20°C)	I <sub>1</sub>	EOTA TR-006
Resistance to fatigue movement (50 cycles)	Pass	EOTA TR-008
Tensile strength at break	0.63	EN-ISO 527-3
Tensile elongation at break	309	EN-ISO 527-3
Resistance to UV radiation in the presence of moisture		EOTA TR-010
Resistance to dynamic indentation (-10°C)	I <sub>1</sub>	EOTA TR-006
Tensile strength at break	0.80	EN-ISO 527-3
Tensile elongation at break	200	EN-ISO 527-3
Resistance to water aging after immersion for 30 days at +60°C		EOTA TR-012
Resistance to static indentation (+80°C)	L <sub>1</sub>	EOTA TR-007
Delamination strength (concrete)	657	EOTA TR-004

## TECHNICAL DATA – ETA 10/0299

PRODUCT FEATURE	MEASURE	UNIT
Type of product	one component, water based	
Density	1.44 ( $\pm 0,1$ )	g/ml
Dry extract	26 ( $\pm 2\%$ )	%
Ash content	42.5 ( $\pm 2\%$ )	%
Viscosity	7.47 (at 3 rpm)	Pa s
	0.39 (at 128 rpm)	Pa s
Waiting time between coats (+23°C, 50% R.H., breezy)	$\geq 1.5$	h
Reaction to fire	Euroclass F	
External fire performance	B <sub>ROOF</sub> (t1)	
Dry film thickness (2.5 kg/m <sup>2</sup> )	1.3 ( $\pm 0,1$ )	mm
Water vapor permeability	$\sim 2820$	$\mu$
Resistance to wind load	> 50	kPa
Resistance to heat ageing	Pass	
Water impermeability	No penetration	
Number of coats	$\geq 2$	
Spread rate per coat	1.0	Kg/m <sup>2</sup>
Shelf life	18	Months

### Safety measures

See SDS.

### Storage

Store in a dry, well-ventilated place at temperatures above freezing.

### Colors



Red



Gray



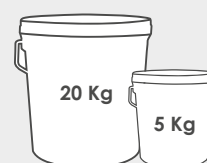
Please contact our Technical Support at:  
[assistenza@icobititalia.com](mailto:assistenza@icobititalia.com)

The manufacturer reserves the right to amend product specifications without notice.  
 The above performances were measured according to the standards in force at the time of issue and represent the average results of our tests.  
 Although highly reliable, they do not constitute a binding commitment nor liability for Icobit Italia S.r.l.  
 The purchaser and the end consumer acknowledge responsibility for the product suitability to the intended use.



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### PACKAGING



### APPLICATION METHODS



BRUSH



ROLLER



AIRLESS SPRAY