PRODUCT DATA SHEET

ITEM CODE: SEE DN
ISSUE DATE: 24/11/2025
REVIEW: NO. 17

CE

WINGUM PLUS® H2O REFLEX

Compliant with guideline
EAD 030350-00-0402
Liquid applied waterproofing products for roofs;

IAPMO ES
IAPMO UES UEL-5041

CRRC COOL ROOF RATING COUNCIL
RATED PRODUCT

DESCRIPTION OF THE PRODUCT

Water-based, elastomeric, white liquid protective membrane formulated with special fillers and additives that provide high solar reflectivity and infrared emissivity. The product is resistant to water ponding and is also suitable for applications on large surface areas. Formulated by WINKLER Research & Development Laboratories.

APPLICABLE REGULATIONS

WINGUM PLUS® H_2O REFLEX complies with the following standards and certifications:

- **EAD 030350-00-0402 (ex ETAG 005)** guideline: liquid -applied waterproofing products for roofs.
- **IAPMO UES UEL-5041**, in compliance with **ASTM D6083**: Certification of performance for liquid-applied waterproofing membranes for roofs and coverings.
- **MIAMI-DADE COUNTY** product recognition.
- Compliance with **CRRC Cool (Roof Rating Council)** requirements.

INITIAL SRI: **107**
SRI AFTER 3 YEARS: **79**

FIELDS OF USE

The product is used to protect bituminous membranes and roofing systems, as well as flat surfaces such as cement, fiber-cement, expanded glass panels, concrete, XPS, EPS, polyurethane insulation panels, bitumen-polymer membranes (oxidized for a minimum of 180 days), and metal roofs.
It is applied where improved thermal insulation is required and to reduce heat absorption from solar exposure, resulting in energy savings for building air-conditioning systems and a significant increase in the efficiency of solar thermal and photovoltaic panels.

Winkler Srl
Via M. Buonarroti, 15 - 20093 Cologno Monzese (Mi) - Italy
Tel. +39 02 26 700 605
info@winklerchimica.com - www.winklerchimica.com

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SURFACE PREPARATION

Thoroughly clean the substrate to remove dust, loose and brittle material, and any foreign or non-adherent substances. On powdery substrates, to improve adhesion, it is recommended to apply a preliminary coat of **WINFIX CONCRETE**. Check the substrate for the present of moisture to prevent the formation of air bubbles caused by vapour pressure. The recommended method is to apply a polyethylene sheet sealed with adhesive tape to the side of the surface exposed to the sun and to check for possible condensation after 24 hours.

If no condensation is present, **WINGUM PLUS® H_2O REFLEX** may be applied. If condensation is detected, allow the substrate to dry completely before application.

RECOMMENDATIONS

Do not add additives.

Do not use the product if the packaging is damaged.

Do not add water or solvents.

WARNINGS

In case **WINGUM PLUS® H_2O REFLEX** is applied on a bituminous membrane, the membrane must have undergone at least 180 days of oxidation before product application.

Apply **WINGUM PLUS® H_2O REFLEX** at temperatures between +5°C and +35°C.

Protect the applied product from water, rain and snow during the first 24 hours after application. Do not apply if nighttime dampness is expected.

APPLICATION

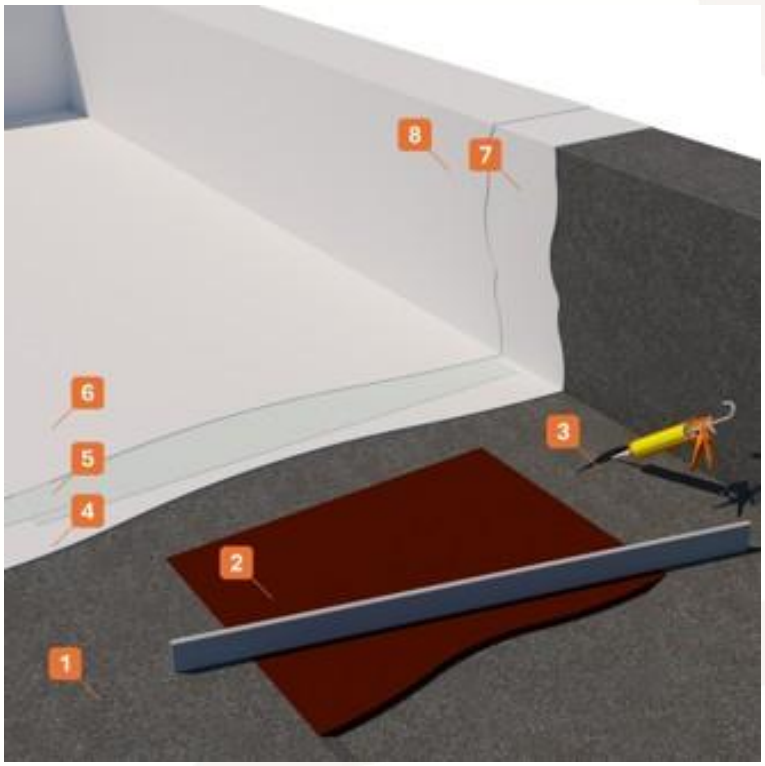
The product is ready to use and can be applied using a roller, brush, wide paintbrush, steel trowel and airless spray equipment.

Apply a minimum of two coats, allowing at least 24 hours between the first and second coat, to ensure a uniform thickness suitable for effective waterproofing.

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PRODUCT DATA SHEET

CE



LEGEND

1. Existing bituminous membrane;
2. **WIN BITUROOF** levelling compound;
3. Overlap restoration with **TIXO SEAL**;
4. **WINGUM PLUS H_2O REFLEX**, first coat;
5. **Wintechno Mat**, 70 g/m² non-woven reinforcement fabric;
6. **WINGUM PLUS H_2O REFLEX**, second coat;
7. **WINGUM PLUS H_2O REFLEX**, first coat vertical upstand;
8. **WINGUM PLUS H_2O REFLEX**, second coat on the vertical upstand;

To ensure proper waterproofing performance, apply **BC SEAL BAND** waterproofing adhesive tape along all perimeter edges of the surface.
For waterproofing and sealing around roof penetrations - such as drains, ventilation pipes, service penetrations, and pipes - use **BC SEAL PAD**, self-adhesive butyl square pad designed for localized reinforcement.

To maintain and extend the reflectance of **WINGUM PLUS® H_2O REFLEX**, it is recommended to apply **WINCLEAN**, a transparent protective membrane with low dirt retention, once the product is completely dry (at least 24 hours after application of the final coat).
The recommended consumption is approximately 80 g/m². Periodic cleaning of the surface is also advised to maintain performance.

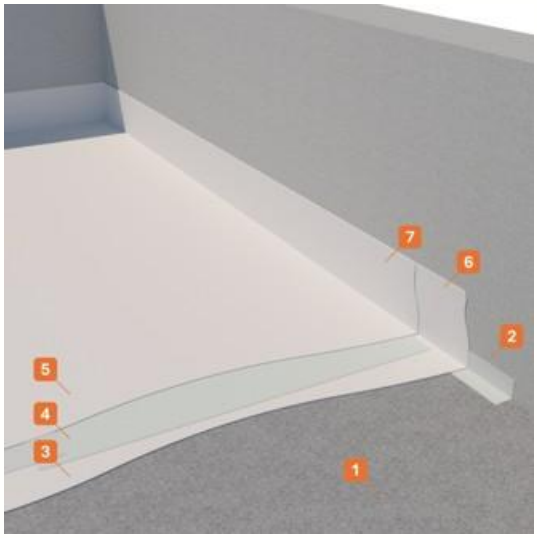
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PRODUCT DATA SHEET

CE

Perimeter angle treated with BC SEAL BAND



LEGEND

1. Structural substrate / slope screed;
2. **BC SEAL BAND,** self-adhesive butyl sealing tape;
3. First coat of **WINGUM PLUS® H_2O REFLEX;**
4. **WINTECHNO MAT;**
5. Second coat of **WINGUM PLUS®H_2O REFLEX;**
6. **Wingum Plus H_2O REFLEX**, first coat on the vertical upstand;
7. **Wingum Plus H_2O REFLEX**, second coat on the vertical upstand;

Drain detail treated with BC SEAL BAND e BC SEAL PAD



LEGEND

1. Structural substrate / slope screed;
2. **BC SEAL BAND**, self-adhesive butyl sealing tape applied as a “collar”;
3. **BC SEAL PAD**, self-adhesive butyl patch;
4. First coat of **WINGUM PLUS® H_2O REFLEX;**
5. **WINTECHNO MAT**;
6. Second coat of **WINGUM PLUS® H_2O REFLEX.**

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Roof vent treated with BC SEAL BAND and BC SEAL PAD



LEGEND

1. Structural substrate / slope screed;
2. **BC SEAL BAND**, self-adhesive butyl sealing tape;
3. **BC SEAL PAD**, self-adhesive butyl patch;
4. First coat of **WINGUM PLUS® H_2O REFLEX;**
5. **WINTECHNO MAT**;
6. Second coat of **WINGUM PLUS® H_2O REFLEX.**

APPLICATION WITH REINFORCEMENT

On substrates subject to significant deformation and therefore at high risk of cracking, it is recommended to reinforce **WINGUM PLUS® H_2O REFLEX** with **WINTECHNO MAT**.
Apply **WINGUM PLUS® H_2O REFLEX** evenly over the substrate. While the product is still fresh, place **WINTECHNO MAT** onto the surface and embed it using a steel trowel to ensure full adhesion between the reinforcement mat and the liquid membrane.
Allow the first coat to dry completely (approximately 18-24 hours), then apply the second coat of **WINGUM PLUS® H_2O REFLEX** until the total consumption specified in the Technical Data Sheet is achieved.

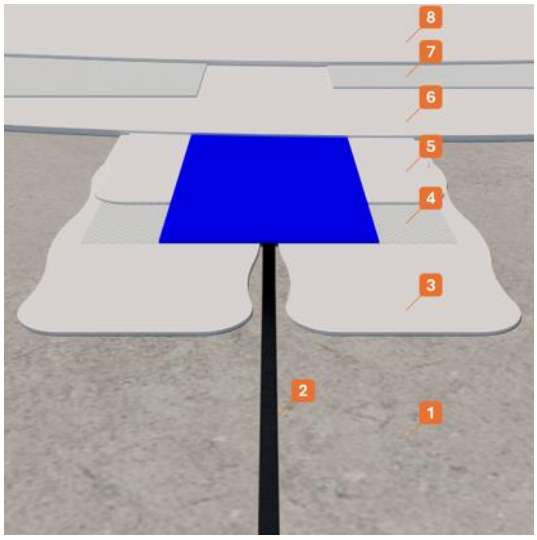
SURFACES WITH JOINTS

Sealing of joints up to 1 cm wide

Seal joints up to 1 cm in width using **WINJOINT BAND**, a waterproofing elastic joint cover strip made of rubber and polyester fabric, specifically designed for joint waterproofing.
After forming new joints or restoring existing ones, apply **WINGUM PLUS® H_2O REFLEX** laterally along both sides of the joint, ensuring a coverage wider than the width of the joint cover strip.
While the product is still wet, place **WINJOINT BAND** over the joint and press the perforated side firmly into the area previously treated with **WINGUM PLUS® H_2O REFLEX** to ensure proper adhesion.

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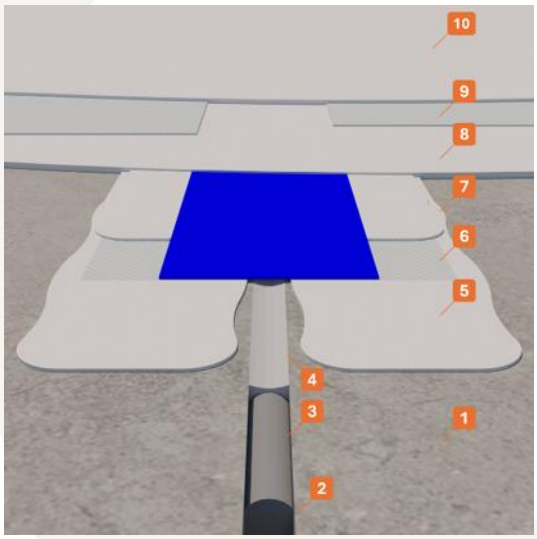


LEGEND

1. Structural substrate / slope screed;
2. Screed joint;
3. **WINGUM PLUS® H_2O REFLEX;**
4. **WINJOINT BAND;**
5. **WINGUM PLUS® H_2O REFLEX;**
6. First coat of **WINGUM PLUS® H_2O REFLEX;**
7. **WINTECHNO MAT**;
8. Second coat of **WINGUM PLUS® H_2O REFLEX.**

Sealing of joints wider than 1 cm

Use the following system to seal joints wider than 1cm: **WINJOINT FOAM** (compressible polyethylene backer rod), **WINJOINT SEAL** (polyurethane sealant) and **WINJOINT BAND**, as described below:
After forming new joints or restoring existing ones, insert **WINJOINT FOAM** into the joint to the required depth.
Apply **WINJOINT SEAL** along the entire length of the joint, ensuring complete filling.
Once the sealant has fully cured, apply **WINJOINT BAND** following the procedure previously described.



LEGEND

1. Structural substrate / slope screed;
2. Screed joint;
3. **WINJOINT FOAM**, Backed rod;
4. **WINJOINT SEAL**, sealant;
5. **WINGUM PLUS® H_2O REFLEX;**
6. **WINJOINT BAND;**
7. **WINGUM PLUS® H_2O REFLEX;**
8. First coat of **WINGUM PLUS® H_2O REFLEX;**
9. **WINTECHNO MAT**;
10. Second coat of **WINGUM PLUS® H_2O REFLEX.**

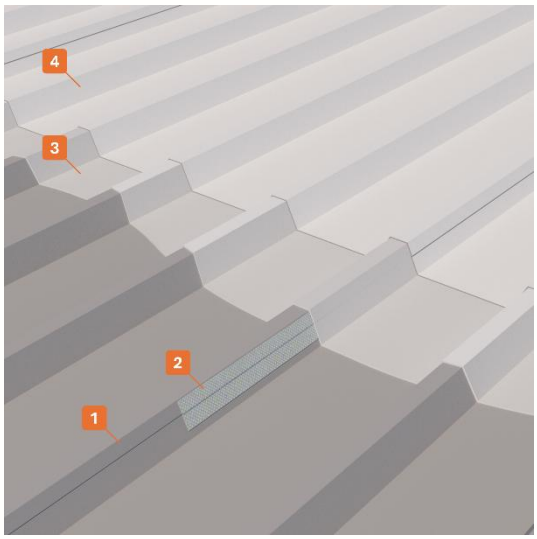
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Applications on metal roofs



LEGEND

1. Metallic panel;
2. **BC SEAL BAND,** self-adhesive butyl sealing tape;
3. First coat of **WINGUM PLUS® H_2O REFLEX;**
4. Second coat of **WINGUM PLUS® H_2O REFLEX.**

DRYING TIMES (at 20° C)

The product becomes dry to the touch approximate 12 hours after application.
After 24 hours from the application of the final coat, the membrane is waterproof and resistant to water stagnation.
After 48 hours, the membrane develops sufficient mechanical strength to allow foot traffic.
Drying times may vary depending on ambient temperature and relative humidity.

CONSUMPTION

1.2 - 1.4 kg/m2 in two coats
1.8 – 2.0 kg/m² in two coats with **WINTECHNO MAT** reinforcement embedded

PACKAGING

5-10-20 kg buckets

STORAGE

The product in its original and undamaged packaging, can be stored for up to 24 months.
Store at temperatures between +5°C and 35 °C. The product is not frost-resistant.

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SAFETY INSTRUCTIONS

PRECAUTIONS

For safety information, the user must refer to the latest Safety Data Sheet (SDS), prepared in accordance with applicable regulations. The SDS contains detailed information on the physical, toxicological, and safety characteristics of the product.

DISPOSAL AND ENVIRONMENTAL PRECAUTIONS

Do not release the product or empty containers into the environment. For detailed disposal instructions, refer to the most recent Safety Data Sheet (SDS).

TECHNICAL FEATURES
(average value)

FEATURES	STANDARD	RESULTS
Appearance	-	Fluid paste
Colour	-	White
Specific weight at 20°C	UNI EN ISO 2811-1	1.40 ± 0.05 g/cm³
Solid content	UNI EN ISO 3251	73 ±3 %
pH	UNI 8490-4	9±1
Brookfield viscosity at 20°C	UNI EN 8490	18.000 ± 2.000 cPs

PRODUCT PERFORMANCES IN SERVICE

FEATURES	RESULTS
Operational temperature	30°C to +80°C
Resistance to atmospheric agents	Good
Resistance to UV rays	Good

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TENSILE AND ELONGATION STRENGTH AT BREAK
ASTM D 2370

TENSILE AND ELONGATION STRENGTH AT BREAK	RESISTANCE AT BREAK	ELONGATION
Before accelerated ageing	1.41 N/mm^2	188 %
After 1.000 h of accelerated ageing	1.66 N/mm^2	178 %

PERMEABILITY
ASTM D 1653 - Method B, Condition A

VALUE	REQUIRED
10	≤ 50

MOLD RESISTANCE
ASTM D G 21

VALUE	REQUIRED
0	0

STRENGTH AT BREAK
ASTM D 624

VALUE	REQUIRED
102 lbf/in	≥60

WATER ABSORPTION
ASTM D 471

WATER ABSORPTION	DAYS IN WATER	ABSORPTION (BY WEIGHT)
Before accelerated ageing	7 ± 4h	17 % (required ≤ 20)
After 1.000 h of accelerated ageing	7 ± 4h	13 % (required ≤ 20)

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FLEXIBILITY AT LOW TEMPERATURES
ASTM D 522

FLEXIBILITY AT LOW TEMPERATURES	TEMPERATURE	BREAK (Y/N)
Before accelerated ageing	-26 °C	N
After 1.000 h of accelerated ageing	-26 °C	N

RESISTANCE TO ACCELERATED AGEING CYCLES
ASTM D 4798

Test equipment: QUV Accelerated Weathering Tester (Model: QUV/Spray)

EXPOSURE TIME	CRACKS OBSERVED
1.000 hours	N

RESISTANCE TO ABRASION
ETAG 008

NUMBER OF PASSAGES	WEIGHT LOSS
10.000	0

ADHESION BEFORE AND AFTER SUN-RAIN CYCLES
25 CYCLES

Test Method: Dynamometer conforming to UNI EN 1348:2000

SUBSTRATE	BEFORE CYCLES	AFTER CYCLES	REQUIREMENT
Concrete	1.35 N/mm^2	1.16 N/mm^2	≥ 1.0 N/mm^2
Ceramic	1.55 N/mm^2	1.38 N/mm^2	≥ 1.0 N/mm^2

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SOLAR REFLECTANCE AND EMISSIVITY PROPERTIES

FEATURES	STANDARD	RESULTS
Solar Reflectance Index	ASTM E 1980	>107 SRI
Solar Reflectance Factor	ASTMVE 903-96	0.85 ρe
Solar Absorptance	ASTM E903-96	0.151 a
Emissivity	ASTM C 1371	0.919 ε

VOLATILE ORGANIC COMPOUNDS EMISSION

PARAMETER	MAX. ALLOWED CONCENTRATION (µg/m³)
TVOC after 3 days	≤ 750
TVOC after 28 days	≤ 60

Test performed by the EUROFINS Institute according to EN 16516, ISO 16000-3/6/9/11 and ASTM D5116-10. Test report n. 392-2017-00404102_G_EN_02.

The product complies with the requirements of Directive 2003/53/EC.

PRODUCT FOR PROFESSIONAL USE ONLY

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