

# TYTAN PROFESSIONAL WINS External Liquid Foil 2,4 l white

10045821, 10045171, 10046358

TYTAN WINS exterior liquid window foil is a ready to use one-component product, forming a vapor-permeable coating (zone 1), which regulates the migration of moisture from the window gap to the external environment of the building, which eliminates the degradation of the foam (zone 2). It is chemically neutral and adheres to most building materials. It creates a flexible and vapor-permeable coating. Thanks to its flexibility, it is ideal for sealing joints between frames and jambs in TYTAN WINS systems, where small displacements usually occur. The coating in combination with the TYTAN WINS Flex insulating foam and the TYTAN WINS internal liquid foil creates a water and wind resistant connection between the reveal and the door frame, preventing energy loss and the possibility of moisture and fungus in the joint. The joint sealed with TYTAN WINS liquid foil is resistant to adverse weather conditions, including hurricanes up to 160 km/h. TYTAN WINS specialist liquid film for sealing windows is reinforced with polymer fibers and has a very high resistance to UV radiation for 10 years.



## BENEFITS

- ready for use
- highly flexible, permanently elastic even at freezing temperatures
- forms an vapor permeable membrane after drying
- it can be painted and plastered after drying
- does not flow down from vertical surfaces
- prevents mold and foam degradation in the window or door connection
- can be used in - and outdoor applications
- high UV-resistant 10 years
- very good adhesion to most building materials

## RECOMMENDED USES

- window and door joints - sealing joints of door and window frames: outside application
- walls, cracks, gaps
- wall-floor and wall-ceiling connections
- renovation of coverings

## NORMS / ATESTS / CERTIFICATES

The product meets requirements of:

- ITB-KOT-2020/1350

Additional information

- Polish Standard PN-EN 12591:2007 "Windows and doors - terminology"
- Polish Standard PN-EN 1027:2016-4 "Windows and doors. Watertightness. Test method".
- Polish Standard PN-EN 12208:2001 "Windows and doors - Watertightness - Test method".
- Polish Standard PN-EN 12207:2017-01 "Windows and doors - Watertightness - Test method".
- Polish Standard PN-EN 13788:2013-05 "Humidity and heat properties of construction components and elements of the building. Internal surface temperature necessary to avoid critical surface humidity and interlayer condensation. Calculation methods".
- PN-EN 6946 "Construction components and elements of the building. Thermal resistance and heat transfer coefficient. Calculation methods"
- PN-EN ISO 14683 "Thermal bridges in the building. Linear heat transfer coefficient".

## TECHNICAL DATA

Uncured - tested at 23°C and 50% relative humidity	Value
Curing rate [mm/24h]	1,3
Cured - tested after 2 weeks at 23°C and 50% relative humidity	Value
Elongation at break (ISO 37) [%]	720
Vapor permeability - equivalent diffusion resistance coefficient factor Sd [PN-EN 12572-2016] [m]	<2
Colour	Value

White	+
Conditions of application	Value
Container temperature [°C]	5 - 30
Application temperature [°C]	5 - 30
Storage temperature [°C]	5 - 30
Temperature resistance after curing [°C]	-30 - 80
Adhesion of building materials to the liquid film (PN EN ISO 4624)	Value
Adhesion putty plaster to the product [N/2500 mm <sup>2</sup> ]	800
Adhesion mineral plaster to the product [N/2500 mm <sup>2</sup> ]	100
Adhesion cementitious adhesive to styrofoam to the product [N/2500 mm <sup>2</sup> ]	300
Adhesion to surface	Value
Adhesion to ACC [ASTM D903] [N/m]	1200
Adhesion to aluminium [ASTM 903] [N/m] [N/m]	700
Adhesion to PVC [ASTM 903] [N/m] [N/m]	800
Adhesion to concrete [ASTM D903] [N/m]	800
Adhesion to silicate [ASTM D903] [N/m]	800
Adhesion to foam PU [ASTM D903] [N/m] [N/m]	500
Adhesion to styrofoam [ASTM D903] [N/m]	600
Adhesion to wood [ASTM D903] [N/m]	1000
Adhesion to brick [ASTM D903] [N/m]	2400
Uncured	Value
Full curing time for 1 mm layer, +5 °C [min]	300
Full curing time for 1 mm layer, +23 °C [min]	60
Full curing time for 1 mm layer, +30 °C [min]	50

## METHOD OF USE

Prior to application, read safety instruction presented in MSDS.

### Surface preparation

- The External Liquid Foil for Window presents ideal adhesion to typical construction materials, such as: PU foam, brick, concrete, plaster work, wood, metals, styrofoam, hard PVC and rigid PUR.
- The working surface should be cleaned and degreased, if necessary primed.
- Secure surfaces exposed to accidental contamination (using for example masking tape).
- In the case of application for window gaps, it is required to fill with PU Foam or expandable foam tape.

### Product preparation

- If product is too cold should be brought a warm room leaving it for at least 24 h. The optimal temperature of the product packaging is +20°C.

### Application

- Work in protective gloves.
- After application and full foam PU Foam hardening cut off the excess foam.
- Apply External Liquid Foil for Window undiluted and evenly by means of a suitable a special flexible spatula or wall paint brush in the desired layer thickness on the substrate.
- Vertical gaps should be filled with External Liquid Foil for Window starting at the bottom and moving up.
- Average 1 mm thickness for 1 layer is recommended.
- If necessary applicable in several layers.
- To ensure full tightness, apply the product from 0,5 cm to 1 cm with a spatula on the wall and window frame.
- Apply a second layer, depending on the porosity of the substrate and conditions (temperature, humidity).
- For a foil product, use a special foil extruder to apply the sealant to the surface or directly to the joint. Using a flexible spatula, distribute the sealant layer evenly, approximately 2 mm thick.
- If a masking tape is used, it should be removed immediately after the application of the sealant has been completed.
- The curing process is dependent on temperature and humidity.
- External Liquid Foil for Window can be cleaned before hardening with water.
- Do not freeze until fully cured (the temperature during curing cannot be lower than +5°C).

### Works after completion of application

- Before curing, product should be removed from substrates and tools.

- After completion of work, the applicator and tool should be thoroughly cleaned.

## Remarks / restriction

- Static joints, gaps or seals up min. 10mm, max. 30 mm.
- Not suitable for expansion and dilatation joints.
- The works should be carried out in accordance with the technical documentation prepared for a specific object, in accordance with the provisions of the law, taking into account the recommendations of expert opinions and the technical characteristics of the product,
- Curing time depends on temperature and humidity.
- Avoid prolonged contact with water and rain until the coating cures.
- Avoid freezing until fully cured.
- The product reaches full properties after 72 hours.
- Install the joinery in accordance with the manufacturer's instructions, paying particular attention to the correct positioning of the anchors.
- Values of consumption are depending on layer thickness and environmental factors such as temperature, moisture, and type of substrates. Calculated in the standard window O32 / O33 (dimensions: 1165 mm x 1435 mm), for a layer width of 30 mm and a layer thickness of 3 mm.
- Product is packing in 600 ml sausage and 2,4 l bucket.
- Curing system via evaporation of water
- Running meters: 600 ml (20 rm), 2,4 l (80 rm) for gap width 20 mm.

## ADDITIONAL INFORMATION

All given parameters are based on laboratory tests compliant with internal manufacturer's standards and strongly depend on product hardening conditions (c.a., ambient, surface temperature, quality of used equipment and skills of person applying the product).

## TRANSPORT / STORAGE

Do not freeze. Do not store or transport at minus temperatures.

Transport and storage from + 5°C up to +30°C.

The product should be transported and stored in dry conditions and in original, undamaged packaging at a temperature of +5°C to +25°C.

Storage in temperature exceeding +30°C shortens the shelf life of the product, adversely affecting its parameters.

Protect from frost and direct sunlight.

After opening, close the packaging tightly and use the remaining contents as soon as possible.

The product so stored has a shelf life of 12 months.

Detailed information on the conditions of transport is given in the Material Safety Data Sheet (MSDS).

## SAFETY AND HEALTH PRECAUTIONS

For detailed information find Material Safety Data Sheet available at producer upon request.

All written or oral information, recommendations and instructions are given according to our best knowledge, tests and experience, in good faith and in compliance with manufacturer's principles. Each user of this material will make sure in every possible way, including verification of the final product in proper conditions, about suitability of the supplied materials for their intended purposes. The manufacturer is not liable for any losses incurred due to inaccurate or erroneous application of the manufacturer's materials.