

# WINS INTERNAL LIQUID FOIL

## PRODUCT DESCRIPTION

WINS internal liquid foil for window insulation window is a ready to use, one-component product forming a low vapour-permeability coating (area 3), which prevents the migration of moisture into the window gap from the interior, preventing foam degradation (area 2). It is chemically neutral and adheres to most construction materials. It creates a flexible and low vapour-permeability coating. Due to its flexibility, it is perfect for sealing the joints between the frame and the reveal in WINS systems where usually some displacements occur. The coating in combination with the WINS Flex or WINS Fast insulating foam and WINS external liquid foil creates a water and wind resistant joint between the frame and the reveal, preventing energy losses and the possibility of humidity and mould formation. Professional WINS internal liquid foil for sealing windows is reinforced with polymer fibres.

**The product is an integral low permeable layer in the sealing and insulation systems:**



## APPLICATION



The product is intended for sealing the low vapour permeability joints between the frame and the reveal in windows and doors from the internal side of the partition (area 3). The product is flexible and adheres very well to substrates such as: aluminium, PVC, wood, silicate blocks, cellular concrete, ceramic blocks, bricks, plaster, etc. It protects the joints against moisture penetration from the interior. It is low vapour-permeability (close to vapour-tight) liquid foil. After curing it can be painted or plastered.



Easy application



Ultra fast application



Air tightness



Extreme weather conditions resistance



Water vapour diffusion



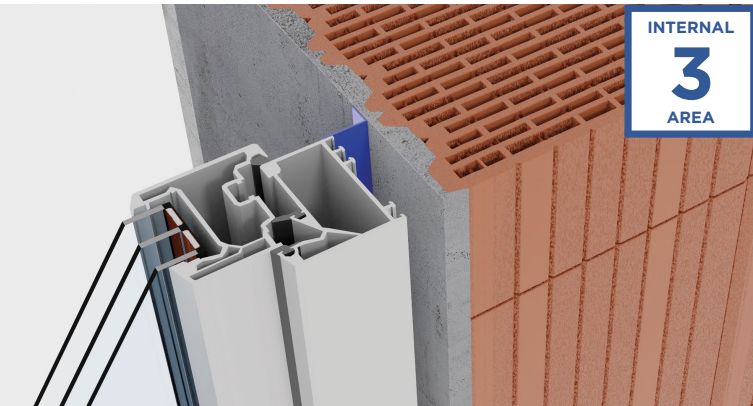
Protection against mould and fungal

## WINS - NEW WINDOW INSULATION STANDARD BASED ON LIQUID FOILS



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## INTERNAL SEALING



The internal sealing constitutes an actual and definitive barrier separating the internal environment from the external environment. The sealing in this area should prevent uncontrolled air infiltration through the joint between the frame and the reveal. Elimination or significant reduction of uncontrolled air flow minimises the risk of draughts, condensation of vapour within the joints and reduces heat loss through the joint. A correct sealing in the internal area should form a continuous surface over the entire surface of the joint, which should not be interrupted.

## TECHNICAL PARAMETERS

Colour: wet / dry	grey-blue / anthracite
Packaging	sausage, 600 ml; bucket, 2.4 l
Curing method	water evaporation
EMICODE®	EC1 PLUS
Adhesion to foil / Tensile strength (PN EN ISO 4624 2016-05)	gypsum plaster: 500 N / 2500 mm <sup>2</sup> mineral plaster: 130 N / 2500 mm <sup>2</sup> polystyrene adhesives: 600 N / 2500 mm <sup>2</sup>
Cleaning method	the material before curing can be removed with water, after curing - mechanically
Temperature resistance (after curing)	from -20°C to +80°C
Shelf life	12 months if stored as prescribed in an unopened original packaging
Diffusion resistance determined by the thickness of the air layer with equivalent Sd diffusion resistance	≥ 30 m
Flexibility on a cylinder with a diameter of 50 mm, at -10°C	no cracks
Elongation at break (+23°C, 50% RH) PN-EN ISO 527-1:2012	140%
Adhesion to frame and reveal materials pull-off method	wood 0.75 MPa PVC 0.71 MPa concrete 0.80 MPa
Crack bridging ability at temp. -20°C	1.30 mm
Air permeability at 600 Pa	class 4 according to PN-EN 12207:2017
Air infiltration rate [m <sup>3</sup> /hm(daPa) <sup>2/3</sup> ]	a < 0.1

## DIRECTIONS FOR USE

**Before use read the safety recommendations in the Safety Data Sheet.**

### 1. PREPARATION OF THE SUBSTRATE

The working surface should be cleaned and degreased, if necessary - primed. Application on a slightly damp surface is permitted. Before applying the liquid foil, surfaces exposed to accidental contamination must be protected (e.g. with masking tape). When applying in window gaps, Tytan Professional WINS Fast or Flex foam application is required.

### 2. PREPARATION OF THE PRODUCT

The optimum temperature of the product is +20°C. If the product is too cold, move it to a warm environment and leave it there for at least 24 hours.

### 3. APPLICATION

Before applying WINS internal liquid foil, cut off the excess of the cured insulation foam - Tytan Professional WINS Fast or WINS Flex. Wear protective gloves before applying the liquid foil. Protect the window frame against stains with masking tape so that the coating overlaps the frame min. 2 mm. Apply the WINS liquid foil on the substrate in undiluted form, spreading it evenly from the bottom to the top with a special elastic spatula or wall painting brush, and in case of applying the product in a sausage, use a special dispenser to apply the sealing compound on the surface or directly on the joint. The recommended minimum layer thickness is 2 mm. To achieve a complete tightness of the joint, apply 5 mm of the product on the reveal and 3 mm on the window frame. Depending on the porosity of the substrate and on the application conditions (temperature, humidity), apply a second layer. If masking tape was applied to the frame, it should be removed immediately after finishing the sealant application. The curing process depends on the temperature and humidity. Excess liquid foil should be cleaned with water before curing. The temperature during curing must not be lower than +5°C.

### 4. POST-APPLICATION WORK

Before curing, the product can be removed from the substrate and tools with water, while after curing - mechanically. After finishing work, the applicator and tools must be thoroughly cleaned.

### CONDITIONS FOR APPLICATION

RECOMMENDED AIR TEMPERATURE FOR APPLICATION	min. +5°C, max +30°C
RECOMMENDED TEMPERATURE OF THE APPLICATOR PACKAGING (OPTIMAL +20°C)	min. +5°C, max +30°C
RECOMMENDED SUBSTRATE TEMPERATURE FOR APPLICATION	min. +5°C, max +30°C

### APPLICATION PARAMETERS

WIDTH OF THE EXPANSION GAP	min. 10 mm, max 30 mm
MINIMUM LAYER THICKNESS	2 mm
CURING TIME IN TEMPERATURE MIN. +5°C, 50% RH	2 mm / 5 h
CURING TIME IN TEMPERATURE MIN. +23°C, 50% RH	2 mm / 2.45 h
CURING TIME IN TEMPERATURE MAX. +30°C, 50% RH	2 mm / 2.10 h
YIELD SAUSAGE, 600 ML (FOR GAP WIDTH 20 MM)	10 r.m.*
YIELD BUCKET, 2400 ML (FOR GAP WIDTH 20 MM)	40 r.m.*
STORAGE TEMPERATURE	min. +5°C, max +30°C
CLEANING METHOD	the fresh material is removed with water, the cured one - mechanically

\* the exact yield of the product depends on the quality and evenness of the substrate, the thickness of the applied layer and the way the joinery is anchored

## STORAGE AND TRANSPORTATION

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

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

The product should be transported and stored in dry conditions and in original, undamaged packaging at temperatures from +5°C to +25°C. Storage at the temperature exceeding +30°C shortens the shelf life of the product, adversely affecting its parameters. Protect against negative temperature and direct sunrays.

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

Shelf life of the product stored according to the above guidelines is 12 months.

Detailed information on transport is included in the Safety Data Sheet.

## STANDARDS AND CERTIFICATES

ITB-KOT-2020/1350

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".



A building project in which WINS systems were used in accordance with the Sealing and insulation standard for joints between the reveal and the frame developed by Selena, carried out by Certified WINS Contractors, may be covered by a 20-year tightness guarantee, confirmed by tests at ITB, KOT- 2020/1350.

Find out more on [www.wins.tytan.pl](http://www.wins.tytan.pl)



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COMPLIANT WITH:



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