

## Polyurethane Foams

# FLEX 365

**Flexible polyurethane foam for the assembly of wooden, PVC or aluminium window frames and shutters, up to -10 °C.**



- Application at any temperature from -10 °C to +35 °C
- Ideal for thermal and acoustic insulation
- Excellent alternative to laying multifunctional self-expanding tapes
- Reduced post-expansion
- Elongation at break > 40
- Certified very-low emission EC1 Plus
- Air tightness up to 1000 Pa



### APPLICATION AREAS

- Installation of door and window subframes (primary joint)
- Sealing the secondary joint between the frame and counterframe
- Installation of interior doors

### FEATURES

Flex 365 is a flexible, single-component, all-season polyurethane foam, suitable for the installation of wooden, PVC or aluminium frames and shutters. Thanks to its permanent elasticity and compressibility, it absorbs vibrations and small movements of the structure, compensates for the thermal expansion of the substrates, prevents heat loss and water infiltration and provides thermal and acoustic insulation at primary and secondary joints of windows and doors. The use of a special mixture of propellants allows it to be used at ambient temperatures as low as -10 °C. It complies with the performance characteristics identified by UNI 11673-1 "Installation of doors and windows" as regards sound insulation parameters, air permeability, vapour permeability, elongation at break, elastic recovery and volume loss. Post-expansion is practically zero. This characteristic has a twofold advantage it avoids tensile stresses that cause misalignment of the counterframes and makes it unnecessary for any second "pass" to complete the filling. Flex 365 is a viable alternative to the use of multi-purpose tapes, especially when joint insulation is combined with the need to glue the joints.

## WARNINGS

Substrates and articles completely saturated with water prevent the foam from adhering. The Flex 365 is a pressure vessel.

Protect from sunlight and do not expose it to temperatures above 50 °C. Do not puncture or burn, even after use. Do not spray over an open flame or on an incandescent element. Keep away from all sources of combustion. No smoking. Keep out of the reach of children. This product contains flammable components, so only use it in well-ventilated areas. There is the risk that explosive vapour/air mixtures may form, especially if more than one canister is used in the same location. Contains diphenylmethane 4,4'-diisocyanate (EEC no. 615-005-00-9). Extremely flammable. Harmful by inhalation. Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing and gloves. In case of insufficient ventilation wear suitable respiratory equipment. In case of accident or if you feel unwell seek medical advice immediately (show the canister where possible). Please read carefully the information on the safety data sheet.

Storage away from direct sunlight and low temperatures makes the extrusion more constant and the final cell structure more homogeneous. At low temperatures, both the pressure at which fresh material escapes from the valve and the yield of hardened foam are reduced. To obtain a good yield we recommend storage at a temperature of approx. +20 °C, but never below +5 °C. At higher temperatures it may be difficult to dose the product correctly, as the increased pressure inside the can makes it less easy to control the release of material from the valve.

## INSTRUCTIONS FOR USE

1. Substrates must be free of oil, grease and dust. Dampen before application to ensure that the fresh foam has the necessary moisture to form a uniform cell structure.
2. Remove the protective cap from the ring nut and screw it onto the dispensing gun (type T2000 or T500 from Torggler Srl).
3. Shake the canister for at least 15 seconds before use and repeat this process after any processing intervals.
4. Turn the can upside down so that the valve is facing downwards, point the gun barrel in the desired direction and press the nozzle with your fingers.
5. Don't fill cavities completely: Flex 365's controlled post-expansion allows uniform filling, without voids, and avoids wasting material or, even worse, the need to trim any cavities.
6. In the case of low ambient humidity, moisten the strand immediately after extrusion. The complete hardening of the foam is achieved approximately one hour after laying. Any excess can be cut off with a cutter or sanded with sandpaper.
7. If you do not use the full contents of one can, place it back in the upright position and press the the nozzle for a few moments. The escaping gas will clean the valve and gun.

## Cleaning

Uncured traces of Flex 365, e.g. on clothes, tools, frames, etc., can be cleaned with Cleaner for PU-foams.

Hardened product can only be removed mechanically (scraping or grinding). Any residue in the valve can be easily removed when it has fully hardened.

## TECHNICAL SPECIFICATIONS

PARAMETER	VALUE
Storage temperature	from +5 °C to +30 °C
Outdoor temperature during application	from -10 °C to +35 °C
Operating temperature	from -40 °C to +120 °C
Curing time (at 23 °C and 50% r.H.) (MIT 87*)	13 minutes
Shearability (20 mm diameter bead at 23 °C and 50% R.H.) (MIT R/8*)	30 minutes
Density (after free expansion) (MIT 50*)	15-17 kg/m <sup>3</sup>
Density (after contrasted expansion) (MIT 50*)	22-24 kg/m <sup>3</sup>
Post-expansion %	27 %
Dimensional stability (23 °C – 50% r.H.) (FEICA TM 1004:2013)	<3 %
Elongation at break	≥ 40 %

Acoustic insulation $R_{S,w}$ (acc. to IFT guideline SC-01)	63 dB
Air permeability	$a \leq 0,1 \text{ m}^3/(\text{m}^2 \cdot \text{h} \cdot \text{daPa}^{2/3})$
Resistance to water vapour diffusion	$\mu_{d=50} = 20$
Thermal conductivity $\lambda$ (EN 12667)	0,036 W/mK
Fire resistance (DIN 4102)	B3
Emissions of volatile organic compounds (GEV Emicode)	EC1 plus
Water resistance	excellent
Resistance to detergents	excellent
Resistance to chemical agents	good
Resistance to microorganisms	excellent
UV resistance	poor, tends to yellow

  

Color	White
Packaging size	12x750 ml
Packaging	can
Pallet	42 cardboards
Application	Gun application

## CONSUMPTION

Yield is highly dependent on can and ambient temperatures. Free expansion yield: 35 litres.

The values indicated refer to laboratory conditions and may vary considerably depending on the actual application and environmental conditions.

## STORAGE

Flex 365, in its original unopened packaging, is stable for at least 12 months when stored upright, in a dry place, at temperatures between +15 °C and +25 °C, protected from water, low temperatures and direct sunlight.

## CERTIFICATIONS

- IFT Rosenheim certification for acoustic insulation according to EN ISO 10140-1: 2016, EN ISO 717-1:2013-03
- IFT Rosenheim certification for air permeability according to EN 12114:2000-03
- IFT Rosenheim certification for water vapour permeability according to EN ISO 12572:2016-08
- MTIC INTERCERT certification for thermal conductivity according to EN 12667:2002
- GEV Emicode certification for emissions of volatile organic compounds

The information contained in this document is reported on the basis of our experience and knowledge; therefore, any recommendations and suggestions made are without any guarantee and must be verified before using the product by those who intend to use it, who assume all responsibility that may result from its use since the conditions of use are not under our direct control. In case of doubt, it is always advisable to make preliminary tests and/or ask for the intervention of our technicians. Torggler reserves the right to modify, replace and/or delete the items, as well as to change the product data in this document without prior notice; in this case the indications given here may no longer be valid. Always refer to the latest version of the data sheet, available at [www.torggler.com](http://www.torggler.com). Version 02.03.2022.