TEROSON

Technical datasheet

TEROSON EF TK 395

(known as Terokal TK 395)
December 2015

Adhesive foam for insulation materials
Solvent-free 1-K adhesive foam bonding thermal insulation within flat roof areas.

PROPERTIES

- Usable at outside temperatures above -5 °C
- Flexible, no embrittlement
- Levelling unevenness within the substrate
- For every inclination
- Good consumption level – high yield
- High movement absorption, stable with regard to wind suction
- Cured already after approx. 60 minutes

FIELDS OF APPLICATION

Bonding of thermal insulations within flat roof areas, e.g.:

- Polystyrene (PS) rigid foam as rolling, folding insulation blanket and boards
- Polyurethane (PUR) rigid foam
- Phenolic resin (PF) rigid foam
- Mineral fiber insulation material

The bonding of the insulation materials is possible on absorbing and non-absorbing substrates, prepared in a competent and correct manner. The adhesive can be used on materials such as concrete, wood materials, brickwork, trapezoidal profiled steel sheets as well as new and aged bitumen sheeting with fixed mineral sprinkling.

The use of unmentioned insulation materials as well as bonding of mineral fibers and lined insulation materials among and with one another requires preliminary adhesive tests taking into account the instructions of the insulation material manufacturer. The bonding of unlined mineral-fiber insulation material among one another requires at least two strips in addition to the number specified in the adhesive table.

SUBSTRATE PREPARATION

The areas to be bonded must be stable, clean, firm, non-porous, flat, and free of dust, grease and oil. The bonding can also be carried out on moist substrates. Stagnant water must be removed. Remove sinter layers and cement sludge of mineral substrates (e.g. concrete) mechanically. On bitumen sheeting, the mineral sprinkling particles not firmly integrated must be removed mechanically. Only a full sprinkling of the area ensures proper adhesion of the adhesive.

PROCESSING

Observe data on the processing temperature specified in the overview of the technical specifications. Low temperatures prolong the curing period. Skin formation due to keeping it open too long prevents sufficient bonding with the insulation material. Shake can well before use, afterwards, screw onto a WITEC foam gun. For an easy and convenient application, use a WITEC foam gun XL with a 60 cm lance. In order to achieve a sufficient adhesive bonding to the substrate, per m^2 of adherend, an even application with at least 3 lines of adhesive is required (diameter of the strand approx. 30 mm).
With trapezoidal profiled steel sheets, TEROSON EF TK 395 must be applied under consideration of the afore-mentioned application strands at the highest point of the upper frame beams.

Insert the insulation board in the adhesive bed immediately after the adhesive is applied and press firmly. In case of a possible secondary foaming of the adhesive, press on the insulation material again. Skin formation due to keeping it open too long prevents sufficient bonding with the insulation material.
At midsummer temperatures and low humidity, the curing of the adhesive can be improved by a "slight" moistening of the insulation material or the absorbent substrate (no water film) with water accelerating also the adhesive strength.

Replace an emptied can immediately with a new can of TEROSON EF TK 395 1-K insulation material adhesive; never remove the gun from the can by force, in case of an extended inactivity, clean the gun thoroughly with TEROSON FM Cleaner .

PLEASE NOTE

Observe data on the processing temperature specified in the overview of the technical specifications. In case of wetness, snow and ice, strong wind and frost, adverse effects to the bonding can be expected. Therefore, additional measures might be required. Do not heat the container with an open flame and do not store in bright sunlight!
Adhesive is used on trapezoidal profiled steel sheets with an "SP polyester corrosion protection coating" according to DIN 55 928, Part 8. Old sealing systems of bitumen roofs with firmly integrated full sprinkling with minerals must be checked thoroughly with regard to the surface condition, position stability and proper physical functioning. After respective preliminary work, basically, a trial bonding should be performed. Bitumen sheeting with Talcum powder coating and PE foil coating as well as in-situ PUR foams is unsuited as a microscope slide. In cases of doubt, seek the opinion of an expert.
Only apply as many adhesive beads as insulation material can be inserted in the open adhesive. Proper bonding is only provided by finding contact safely. The position of the insulation material can only be corrected within the open time (approx. 5 minutes, depending on temperature and humidity). On tilted areas, the insulation material must be secured against sliding.

On greater slopes, it is recommended to apply the adhesive directly onto the insulation board and then press to bond it to the substrate.

For adhesive strips, whose surfaces have already "reacted" (perform finger test, adhesive no longer sticks to the finger), adhesion is no longer provided. Coordinate the timing of the application of the adhesive with the installation cycle.
TEROSON EF TK 395 is a fast setting bonding system.

For buildings, where an internal pressure is to be expected, buildings in wind zone 4 or terrain category 1 in wind zones 2 and 3, an object-related itemization according to EN 1991 1-4 is always required. For the bonding of mineral-fiber/unlined PUR/PIR insulation materials to the substrate, usually one more strand/m, and for the bonding of mineral-fiber/unlined PUR/PIR insulation materials among one another usually 2 more strands/m should be provided. Fully adhered bonding is inadmissible!

Cleaning

Replace an emptied can immediately with a new can of TEROSON EK TK 395 1-K insulation material adhesive; never remove the gun from the can by force. In case of extended non-use clean the gun thoroughly with TEROSON FM Cleaner .
Screw TEROSON FM Cleaner onto the gun. Pull the trigger of the gun carefully. As soon as the cleaner escapes from the gun opening, release the trigger and allow the cleaner to work for 1 to 2 minutes. Afterwards, pull the trigger until the cleaner escapes clear. Repeat the process 2 - 3 times.
Use TEROSON FM Cleaner to remove fresh foam spots from the valve or valve lever or gun immediately. In case of contact of fresh foam with skin, remove the foam immediately and mechanically, and wipe off the residue using vegetable oils (salad oil). The cured product can only be removed mechanically.

TECHNICAL DATA

Base:	Polyurethane
Color:	yellowish
Processing temperature (temperature of air, substrate and material):	-5 °C to +45 °C
Ideal adhesive temperature (do not heat container above +40 °C):	0°c up to +20 °C
Usage:	One container provides up to 51 m adhesive stand and thus, with at least 3 beads per meter, is enough to bond approx. 17 m² of insulation material. Higher consumption in case of higher wind uplift force and fiber insulation materials. Above 25 m building height: do a building specific individual calculation.
Tack-free time of the surface:	9 -11 minutes
Curing time:	after approx. 60 minutes at room temperature
Ready to be cut with a strand thickness of 20 mm:	30 - 35 minutes
Construction material class:	B1 according to DIN 4102
Foam expansion:	approx. 20%
Shear strength:	4.0 N/cm²
Thermal conductivity:	0.035 W/mK
Temperature resistance:	- 40 °C to +100 °C
Container content:	825 ml
Packing unit:	12 cans
Storage life:	TEROSON EF TK 395 can be stored cool and dry for 18 months from 0°C to 20 C (date of manufacture see bottom of can).
Transportation:	When transporting by motor vehicle: Keep can in the car boot wrapped in a cloth. Never keep in the rear of the car. Contains flammable foaming agent. Store can in upright position.
Cleaner:	TEROSON FM Cleaner

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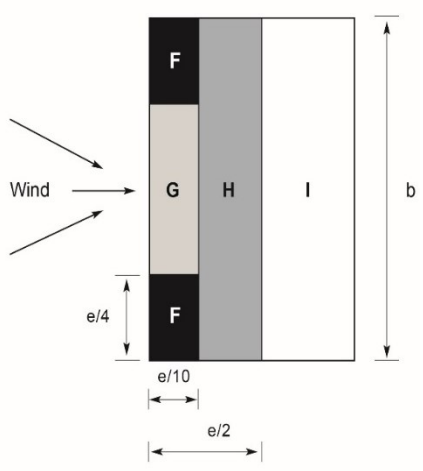
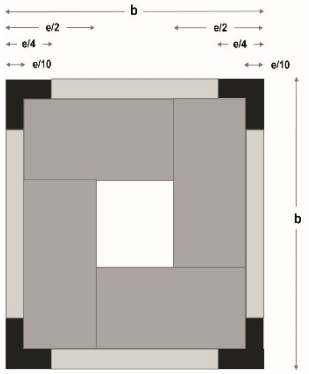
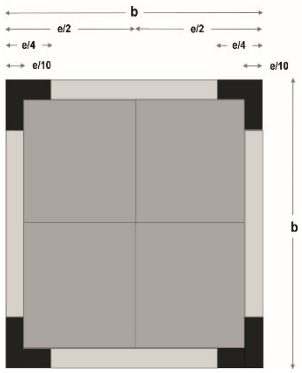
DIVISION OF AREAS ACCORDING TO EN 1991 1-4







e = b or 2h, the smaller value is decisive
b = dimension across the wind
h = building height

Example e = 2h with interior

Example e = b without interior

The roof area must be divided from all sides.
See also the current version of the WOLFIN Guide and regulations for roofs with sealing Appendix I or EN 1991 1-4.

Technical Support

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