

TK 395

Terokal 395

Flexible, 1-component PU gun foam for bonding thermal insulation materials on flat roofs

PROPERTIES

- Solvent-free
- Moisture-curing
- Low-temperature foam, usable from -10 °C (building temperature)
- Flexible, does not embrittle
- Levels out uneven substrates
- Independent of roof pitch
- Economical use
- High absorption of movement, resistant to wind lift
- Building material class B1 acc. to DIN 4102
- Easy application thanks to little post-expansion of 20 %
- Foam volume: approx. 45 l freely foamed, approx. 40 m with a strand diameter of approx. 30 mm
- Fully cured after only 60 minutes
- Temperature-resistant from -40 °C to +100 °C

SCOPE OF USE

TK 395 is suitable for bonding thermal insulation materials on flat roofs, e.g.:

- rigid polystyrene (PS) foam applied as roll-on or folding membrane and as boards
- rigid polyurethane (PUR) foam
- rigid phenolic resin (PF) foam
- mineral fibre insulation materials.

The insulation materials can either be bonded on top of each other or partly with each other. They can be fixed both on absorbent and non-absorbent substrates that were expertly prepared. The PU adhesive can be used e.g. on concrete, wooden materials, brickwork, trapezoidal sheet metal profiles as well as on aged bituminous sheeting with firmly adhering sprinkling. New, non-talcumed bituminous sheeting with full-surface, firmly adhering mineral sprinkling is also a suitable substrate.

When using other insulation materials than those mentioned above, it is necessary to carry out preliminary adhesion tests and to take the insulation manufacturer's instructions into account.

SUBSTRATE PREPARATION

The surfaces to be bonded must be sound, clean, solid, blister-free, level, dry and free of dust, grease and oil. Sintered layers and cement slurries on mineral substrates (e.g. concrete) must be mechanically removed. The adhesive can be used on substrates with trapped building humidity (equalizing moisture), but not on wet substrates with a water film. Mechanically remove any loose mineral sprinkling from bituminous sheeting. Only if the bituminous sheeting is covered with a full-surface sprinkling can reliable adhesion be ensured.

APPLICATION

The can must have a minimum temperature of 0°C; the substrate temperature must be between -10 °C and +45 °C, but ideally +20 °C.

Vigorously shake the can before use; then screw it onto the Terotech foam gun. To ensure reliable bonding to the substrate, apply at least three uniform strands of adhesive (minimum strand diameter: 30 mm) per square meter onto the area to be bonded. Please refer to the following table for the number and positioning of the adhesive strands.

Recommendations for bonding** insulation boards with Terokal 395 PU adhesive

Height of the roof area in m	Inner area (I)	Inner edge area (H)	Outer edge area (G)	Corner area (F)
	Number of adhesive strands/m	Number of adhesive strands/m	Number of adhesive strands/m	Number of adhesive strands/m
Wind zone 1, all terrain categories				
up to 20 m	3	3	4	5
Wind zone 2, terrain categories 2 to 4				
up to 12 m	3	3	4	5
above 12 m	3	3	5	6
up to 20 m	Individual calculation	Individual calculation	Individual calculation	Individual calculation
Wind zone 3, terrain categories 2 to 4				
up to 12 m	3	3	5	6
above 12 m	3	4	6	7
up to 20 m	Individual calculation	Individual calculation	Individual calculation	Individual calculation

** In the case of buildings where internal pressure is to be expected, buildings in wind zone 4 or terrain category 1 in wind zones 2 and 3, it is always necessary to do a building-specific individual calculation in compliance with DIN 1055-4. When bonding insulation materials made of mineral fibres, it is always necessary to use one additional strand/m.

Full-surface bonding is not permissible.

In the case of trapezoidal sheet metal profiles (DIN 18 807, part 1), TK 395 must be applied at the highest point of the upper flanges while taking the above-listed adhesive amounts into account.

After applying TK 395, immediately place the insulation board into the adhesive bed and firmly press it home. If the adhesive shows post-expansion, press the insulation material down again.

If a skin forms on the adhesive because its open time was exceeded, this will negatively affect the bond between adhesive and insulation material.

At high summer temperatures and low air humidity, the bonding strength can be improved and adhesive curing be accelerated by slightly moistening the insulation material or the absorbent substrate with water (no water film).

Replace an emptied can immediately by a new can of TK 395 gun foam. Never remove the can forcibly from the gun. If the gun is not used for a longer time, clean it thoroughly with Teroson PU Cleaner.

PLEASE NOTE

Use Terokal 395 at a substrate temperature between -10°C and +45°C (minimum can temperature: +5°C). Humidity and wetness, snow and ice, biting wind and frost may have a detrimental effect on the bond. Therefore do not apply the adhesive under these conditions (see DIN 18 338). Do not heat the can with an open flame and do not store it at high summer temperatures in blazing sunshine!

Terokal 395 can be used on trapezoidal sheet metal profiles with a „SP polyester anti-corrosive coating“ according to DIN 55 928, part 8.

Old bituminous roof waterproofing systems with firmly adhering, full-surface mineral sprinkling must be thoroughly inspected with respect to their surface condition, secure positioning and structural functionality. As soon as the construction work has sufficiently progressed, a trial application of the adhesive should always be carried out. Bituminous sheeting with talcum coating and PE sheet lamination as well as PUR in-situ foams are not suitable as substrates. In case of doubt, contact us for advice.

Only apply as many adhesive strands as insulation material can be embedded within the open time. A strong, reliable bond can only be produced if secure contact has been established. The embedded insulation material can be repositioned only within the open time (approx. 5 minutes, depending on temperature and air humidity). On sloping areas secure the insulation material against slippage. With higher-pitched roofs it is recommended to apply the adhesive directly onto the insulation board and then fix it to the substrate by pressing it firmly down.

Adhesive strands whose surface has already „reacted“, cannot provide a bond any more (carry out the finger test: the adhesive must stick to the finger). Time the application of TK 395 properly so that it matches the progress of the installation work. TK 395 is a rapidly curing bonding system.

IMPORTANT INFORMATION

Apart from the information given, it is important to also observe the relevant guidelines and regulations of various organizations and trade associations as well as the respective DIN standards.

In case of questions, please consult our advisory service.

Technical hotline

Roof work phone: 0 60 53 / 708 - 141
 fax: 0 60 53 / 708 - 113

The above information, in particular proposals for the handling, application and use of our products, is based on our knowledge, experience and application tests. As materials and site- or application-specific conditions may vary from those described here and are thus beyond our control, we strongly recommend that the user always conducts sufficient tests to ensure our products are suitable for the intended application method and use. Legal liability cannot be accepted - neither based on the content of this Technical Data Sheet nor any verbal advice given - unless there is evidence of carelessness or gross negligence on the manufacturer's part.

This Technical Data Sheet supersedes all previous issues. Please refer to our Safety Data Sheet for warnings, safety advice and transport labelling.

CLEANING

Screw the PU cleaner can onto the gun. Cautiously pull the trigger of the gun. As soon as the cleaner exits from the gun opening, release the trigger and allow the cleaner to act for 1 to 2 minutes. After that, pull the trigger again until the cleaner that flows out has a clear colour. Repeat the operation 2 to 3 times.

Immediately remove fresh foam stains from the valve resp. the trigger or the gun with PU cleaner. If fresh foam gets into contact with the skin, immediately remove the foam mechanically and wipe the rests off with vegetable oils (salad oil). After curing, the adhesive can only be removed mechanically.

Replace an emptied can immediately by a new can of TK 395 gun foam. Never remove the can forcibly from the gun. If the gun is not used for a longer time, clean it thoroughly with Teroson PU Cleaner.

TRANSPORT

When transporting the foam can by car, keep it in the boot wrapped into a piece of cloth. Do not transport it in the back of the car.

The foam can contains flammable propellants, therefore store it upright.

DISPOSAL

After curing, the foam is no longer a hazardous substance and can be disposed of as domestic waste. Take single foam cans to the municipal waste collection point for recycling. Dispose of or recycle the cans according to the local regulations.

Please enquire the respective disposal code from us.

STORAGE

TK 395 can be stored for 18 months in a cool and dry place at 20°C (date of manufacture: see bottom of the can).

PACKAGING

750 ml aerosol can

SHIPPING UNIT

12 aerosol cans

TECHNICAL DATA

Material base:	polyurethane
Yield:	approx. 45 liters
Tack-freeness of the surface:	after 9 -11 minutes
Cuttability with an adhesive strand thickness of 20 mm:	after 30 - 35 minutes
Building material class:	B1 according to DIN 4102
Foam expansion:	approx. 20 %
Curing time:	fully cured after approx. 60 minutes
Shear strength:	4.0 N/cm ²
Thermal conductivity:	0.035 W/mK
Temperature resistance:	- 40 °C to +100 °C

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