



PRODUCT CATALOGUE
PROFESSIONAL BUILDING PRODUCTS
2018

FOUNDATIONS _____

FOUNDATIONS

- We provide solutions for every type of ground conditions
- We offer only well-tested systems and products
- We provide technical support and advice

Waterproofing of underground elements is a sensitive stage of a construction process to which there is no return after it is completed. This is why the contractors say: "foundations are made only once".

Groundwater, precipitation, or temperature cycles pose threat to foundations, and this is why the highest quality waterproofing is key. Limited access to the underground elements after the construction process is completed is quite a challenge, so it is essential that the materials used in them are of the highest quality and durability.

Selena offers a comprehensive choice of solutions to protect foundations against dampness. In our labs we have developed a wide array of technologies which enable us to provide a choice of products of the diversified ranges of application suited to the prevailing ground conditions.

The bitumen-based technology is the most popular waterproofing solution in Europe. Bitumen provides an ideal leak-tightness and durability. Chemical modifications developed in our laboratories (additives of rubber, polymers, aluminium, solvent bases, aqueous dispersions) extend their range of applications and improve their technical parameters.

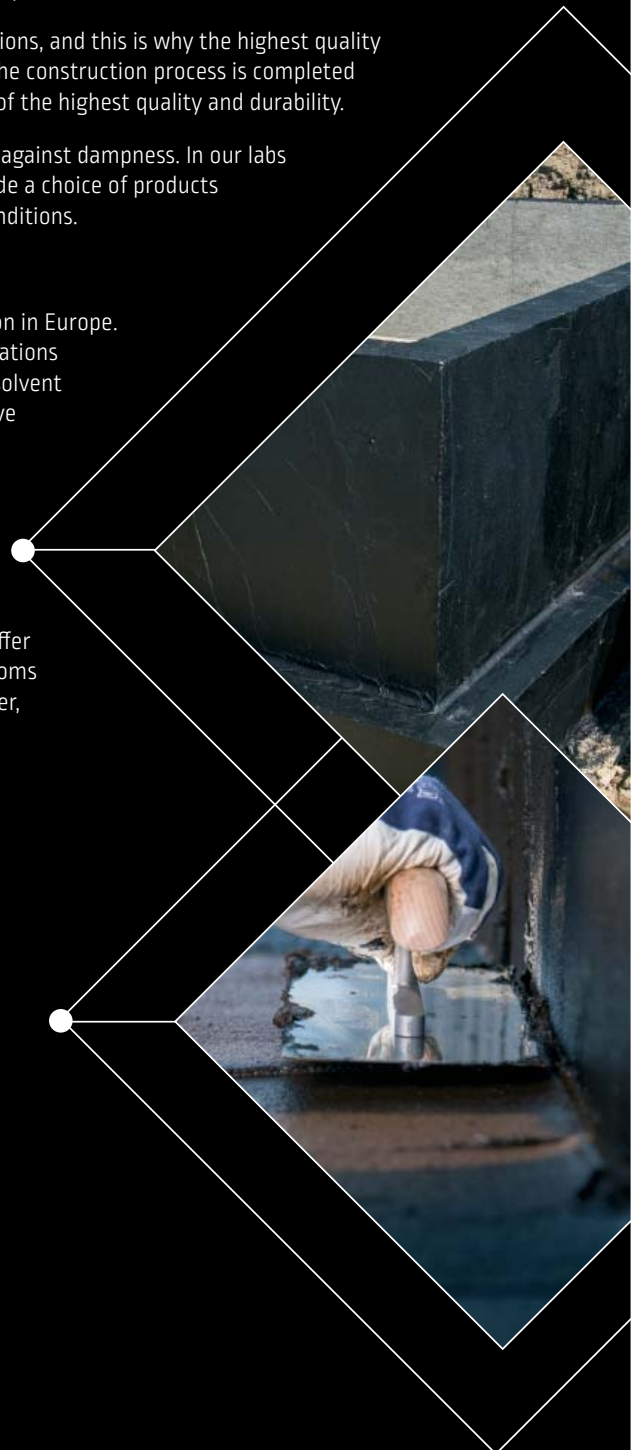
Selena is the manufacturer of numerous products of bitumen-based technology including foundations insulation membranes, primers, compounds and coatings.

Thanks to the implementation of the cement technologies we can also offer waterproofing solutions for the internal parts of buildings such as bathrooms and basements and for the facilities which are constantly exposed to water, such as swimming pools, ponds and industrial water tanks.

Our systems are carefully tested and certified solutions, in compliance with rigorous technical norms. We develop and test them in consultation with contractors in order to meet their needs and fulfil the demands of everyday work.

This allows us to offer the following solutions:

- Tack-R KMB 2K a resin for heavy waterproofing
- Tack-R bituminous self-adhesive membranes
- Tack-R Green bituminous anti-root membranes





FOUNDATIONS

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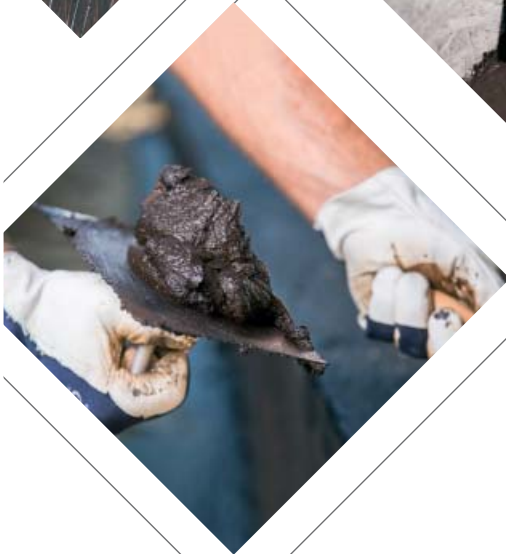
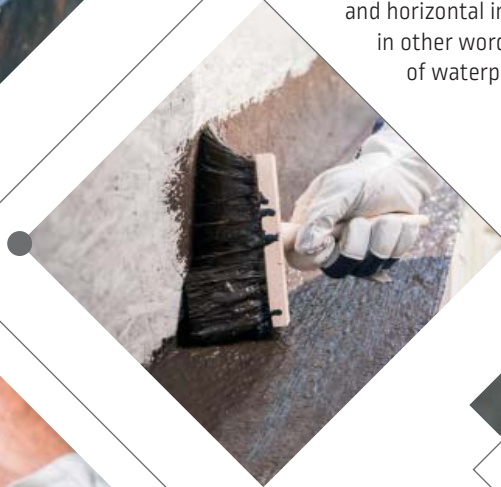
The strip footing is a load bearing element of a building structure. It bears extreme loads depending on the height of a structure. Proper securing of these element is the key aspect of every construction.

A choice of proper materials and technologies used for waterproofing of underground elements is strictly related to the prevailing ground conditions and the kind of a substrate, groundwater level and the amount of precipitation.

A detailed analysis of these conditions is prerequisite for the proper choice of waterproofing materials but also for the proper construction of the foundations (mats, strip foundations and foundation walls).

A major error in performing the foundations waterproofing is the wrong choice of a technology in relation to the level of groundwater. Such errors can lead to the dampness of walls and foundation footings, the penetration of moisture into the basement, the formation of mould and fungi and the corrosion of concrete.

The proper performance of a waterproofing coating is as important as the choice of waterproofing materials. It is key that a strict technological regime is followed (in compliance with the guidelines provided by the manufacturer) and the technological breaks are observed. The connections of vertical and horizontal insulation, expansion joints and pipe passages in other words, the connections of different types of waterproofing are extremely sensitive areas.

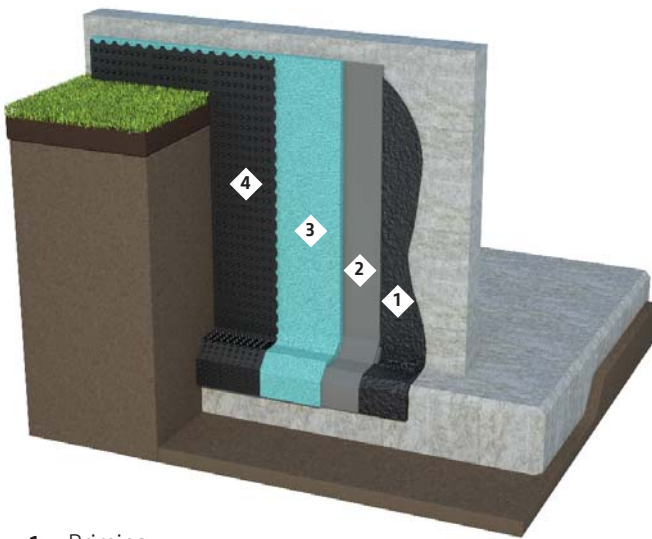


How to choose proper waterproofing?

In relation to the ground permeability and groundwater level we can distinguish three types of foundation waterproofing:

- **light type waterproofing (moisture resistant)** which is performed in the conditions of the high ground permeability when the level of groundwater is below the foundation seating level of a building
- **medium type waterproofing** which is performed in the conditions of low ground permeability (cohesive soils), when the level of groundwater fluctuates periodically depending on the amount of rainfall and remains min 30 cm below the bottom of the foundation
- **heavy type waterproofing (water resistant)** is performed in the conditions of the constant pressure of groundwater (the ground water level is higher than the level of foundations)

The determination of the proper type of waterproofing requires the implementation of specific materials and technologies which can effectively ensure protection of the underground parts of buildings against the harmful effects of water.



1. Priming
2. Bituminous coating
3. Thermal insulation
4. Drainage mat

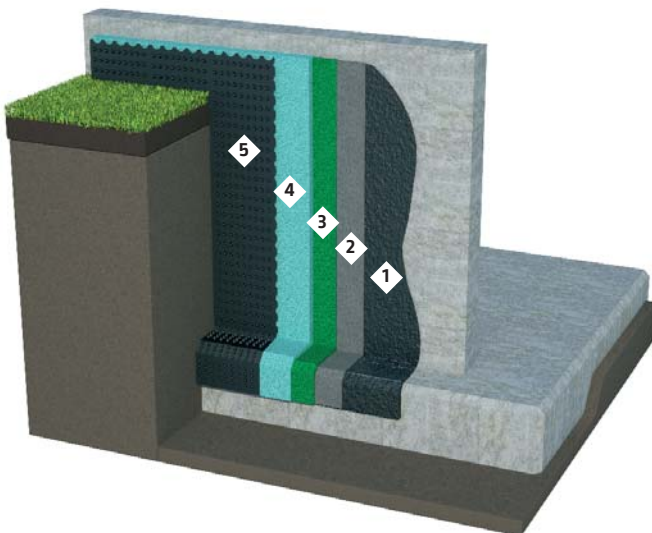
Bituminous masses should be applied to the depth of 3 m below ground level.

Bituminous compounds

Bituminous compounds are applied for priming the substrate as well as for making a vertical moisture resistant insulation (the light type). Bituminous compounds are characterized by high adhesion to most substrates. Their technical parameters depend on the additives used.

Two-component, thick-layer compounds

The two-component (polymer-bituminous) compounds are new generation products suitable for performing a moisture resistant insulation as well as for a water resistant (waterproof) one. The essential advantage of the two-component compounds is their high elasticity also at low temperatures. They become resistant to precipitation as soon as 2 hours after their application. They allow for the backfilling of the foundations within 2 days after application which means shorter exposure to the risk of damage.



1. Priming
2. Bituminous membrane (underlayer)
3. Bituminous membrane (toplayer)
4. Thermal insulation
5. Drainage mat

Anti-root membranes should be used in order to protect the underground elements against trees and shrubs.

Heat-sealed and self-adhesive membranes

Bituminous membranes are a proper choice for the heavy type of waterproofing. Modified with the SBS additive, they remain flexible at low temperatures and their adhesion to the substrate is excellent.

Some of the many advantages of the application of the bituminous membranes are: the relative ease of maintaining an even thickness of the waterproofing layer and the possibility of immediate backfilling of the foundations.

Foundation membranes are applied in a single or double-layer system for both horizontal and vertical insulation.

The horizontal insulation of foundations

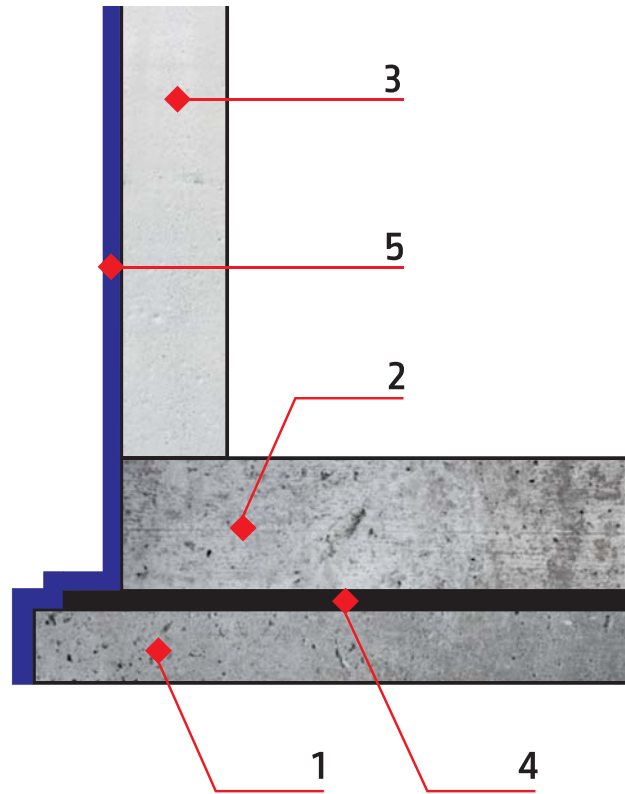
The horizontal insulation of the foundations serves to keep moisture in the bottom part of foundations and prevent it from permeating upwards. It protects the upper parts of the foundations against the capillary absorbency, or an upward infiltration of dampness into the walls.

The vertical insulation of foundations

The vertical insulation of the foundation serves to separate the foundation walls from the moisture accumulated in the ground in the form of groundwater and rain water.

Underfloor waterproofing

The selection of the materials for underfloor waterproofing depends on the purpose of the lower floor of a building. The bituminous membranes are recommended for basements, garages, and parking areas. In other cases, the implementation of solvent-free and oil-free materials is recommended, for example elastic sealing mortars.



The heavy insulation system for buildings with basement – seated on the mat

1. Substrate concrete
2. Bottom mat
3. Foundation wall
4. Horizontal insulation of the bottom mat
5. Vertical insulation







Abizol R

Bitumen Primer

Bitumen compound slightly modified with synthetic rubber and special additives that allow deep substrate penetration and use on slightly moisten substrates. It is designed for priming under bituminous coatings. The applied membranes are very resistant to cracks caused by frost, strongly bind to the substrate and partially absorb the surface movement and micro cracks.



APPLICATIONS:

- Priming of concrete substrates
- Initial covering under hydrophobic coatings
- To create light hydrophobic insulation coatings

BENEFITS:

- Works even on slightly moisten surfaces
- Deeply penetrates the substrate
- Resistant for weak acids and bases

TECHNICAL PARAMETERS:

- Consistency: liquid
- Colour: black
- Application temperature: +5°C to +35°C
- Initial drying time: 6 h
- Curing time: 12 h
- Consumption: 0,2–0,3 kg/m² for 1 layer
- Number of layers: 2–3

Product name	Content	Packaging	Pieces per pallet
Abizol R	9 kg	Bucket/ metal bucket	44/ 44
	18 kg	Bucket/ metal bucket	27/ 33

Abizol P/S

Universal Waterproofing Compound

Cold-applicable bitumen compound modified with synthetic rubber and resins designed for seamless hydrophobic insulations of underground parts of the buildings. Product can be used for coating of concrete industrial water basins.



APPLICATIONS:

- Hydrophobic vertical insulations of underground parts of buildings

BENEFITS:

- Create durable and resistant layer up to -20°C
- Strongly bound to the substrate
- It can be used on slightly moisten surfaces

TECHNICAL PARAMETERS:

- Consistency: half-liquid substance
- Colour: black
- Application temperature: +5°C to +35°C
- Initial drying time: 6 h
- Curing time: 12 h
- Consumption: 0,5–0,7 kg/m² for 1 layer
- Number of layers: 2–3 depending on application

* Technical data and application instruction are given for the temperature +23°C ± 2°C and humidity ca. 60%. Lower temperature and higher humidity can make the curing time longer.

Product name	Content	Packaging	Pieces per pallet
Abizol P/S	9 kg	Bucket/ metal bucket	44/ 44
	18 kg	Bucket/ metal bucket	27/ 33

Disprobit

Dispersive Asphalt Compound

Disprobit compound is a dispersive asphalt compound modified with synthetic rubber. It is designated for light hydrophobic insulations. Disprobit compound can be applied on dry and moist surfaces. Can be combined with foamed polystyrene.



APPLICATIONS:

- Priming under bitumen compounds (water based compounds)
- Moisture-prevention in the underground parts of buildings
- Hydrophobic insulations under floor pavements in basements, garages, on terraces, balconies

BENEFITS:

- Works on dry and moist surfaces
- Does not flow down the vertical surfaces
- Does not contain solvents

TECHNICAL PARAMETERS:

- Consistency: thixotropic substance
- Colour: dark brown/ black
- Application temperature: +5°C to +30°C
- Priming:
 - dilution with water: 1:2
 - consumption: 0,2–0,3 kg/m²
- Insulation:
 - curing time for 1 layer: 6 h
 - consumption: 0,8–1,2 kg/m² for 1 layer
 - number of layers: 2–4 depending on application

Product name	Content	Packaging	Pieces per pallet
Disprobit	1 kg	Bucket	80
	10 kg	Bucket/ metal bucket	44/ 44
	20 kg	Bucket/ metal bucket	27/ 33

Abizol G

Bitumen Rubber Mastic

Abizol G is an elastic dense bitumen putty modified with synthetic rubber and reinforced with fibers. It creates insulation layers which are very resistant to cracks caused by frost. Created membranes are very flexible, they are able to absorb the surface movements and are resistant to weather conditions, soft acids and bases, aggressive substances in the soil.



APPLICATIONS:

- Spot sealing in hydrophobic insulation
- Creating elastic seamless hydrophobic membranes underground

BENEFITS:

- Contains reinforcing fibers
- Absorbs even significant surface movement
- Works even on slightly moisten surfaces

TECHNICAL PARAMETERS:

- Consistency: dense thixotropic substance
- Colour: black
- Layer thickness:
 - repairs: 2–5 mm
 - jointless membranes: 2–3 mm
- Application temperature: +5°C to +35°C
- Initial drying time: 3–4 h
- Curing time: 3–4 days
- Consumption: ca 1,2 kg/m² for 1 mm of layer thickness
- Number of layers:
 - hydrophobic membranes: 2–3
 - sealing: depending on needs

Product name	Content	Packaging	Pieces per pallet
Abizol G	1 kg	Bucket/ metal bucket	324/ 378
	5 kg	Bucket/ metal bucket	80/ 96



Abizol ST

Asphalt Rubber Compound

Highly modified asphalt-rubber compound with consistency of paste. Thanks to its thixotropic qualities the coating does not flow down even from vertical surfaces and can be applied on uneven and complicated surfaces with various slopes. The coatings after drying are tight, very flexible and can absorb the substrate cracks up to 5 mm. It does not damage the foamed polystyrene and can be used also inside basements and garages.



APPLICATIONS:

- Gluing polystyrene and extrude boards to concrete, masonry walls
- Insulations of underground parts of the building – of light, medium and heavy waterproof types
- Hydrophobic insulations under floor pavements on terraces, balconies

BENEFITS:

- Does not flow down the vertical surfaces
- Contains no solvents

TECHNICAL PARAMETERS:

- Colour: dark brown, after drying (curing) black
- 1 layer thickness: up to 2 mm
- Curing time (drying) of 1 layer:
 - 3–5 days for coating
 - Up to 14 days for the adhesive
- Quantity of layers: 2–4
- Dry mass residue: 60%
- Consumption:
 - Waterproofing: cca. 1,2 kg/m²/mm of layer thickness
 - Polystyrene gluing: 0,8–2 kg/m² (spot gluing)
- Temperature of substrate and air during application: +5°C to +30°C
- Applying method: putty knife, throwel, spatula

Product name	Content	Packaging	Pieces per pallet
Abizol ST	9 kg	Bucket/ metal bucket	44/ 44
	18 kg	Bucket/ metal bucket	27/ 33

Abizol 2K

2-Component Bitumen Waterproofing Compound

Bitumen-polymer water-based mastic, reinforced with fibers. It is combined of 2-components: liquid and powder.



APPLICATIONS:

- Waterproofing (light, medium, heavy types) of mineral substrates (foundation and basement walls)
- Installing polystyrene boards to the substrates coated with bitumen compounds.

BENEFITS:

- Quick hardening by chemical reaction
- Rain resistance after 5 h
- Reinforced with fibers-tear resistance
- Waterproof under pressure 0,75 MPa (7,65 m water column)*
- Does not flow down on vertical substrates
- Ecological product – does not contain organic solvents
- Meets the requirements of DIN 18 195

TECHNICAL PARAMETERS:

- Ingredients: polymer modified bitumen, mineral fillers, reinforcing fibers, water
- Consistence: thick
- Colour: black-brown, after curing black
- Density: 1,15 kg/dm³
- Application temperature: +5°C to +30°C
- Fresh layer thickness: cca. 2 mm
- Dry mass content: 70%
- Pot life: 1 h (+20°C)
- Curing time: 3–5 days

Product name	Content	Packaging	Pieces per pallet
Abizol 2K	30 kg	Bucket	18

Abizol 2KS

2-Component Bitumen Waterproofing Compound with Polystyrene Balls

Bitumen-polymer water-based mastic with polystyrene balls reinforced with fibers. It is combined of 2-components: liquid and powder.



APPLICATIONS:

- Waterproofing (light, medium, heavy types) of mineral substrates (foundation and basement walls)
- Installing polystyrene boards to the substrates coated with bitumen compounds

BENEFITS:

- Quick hardening by chemical reaction (3–5 h)
- Easily workable with trowel
- Rain resistance after 5 h
- Reinforced with fibers-tear resistance
- Waterproof under pressure 0,75 MPa (7,65 m water column)*
- Do not flow down on vertical substrates
- Ecological product – does not contain organic solvents
- Low shrink
- Meets the requirements of DIN 18 195

TECHNICAL PARAMETERS:

- Ingredients: polymer modified bitumen, mineral fillers, reinforcing fibers, water.
- Consistence: thick
- Colour: black-brown, after curing black
- Density: 1,15 kg/dm³
- Application temperature: +5°C to +30°C
- Fresh layer thickness: cca. 2 mm
- Dry mass content: 75%
- Pot life: 1 h (+20°C)
- Curing time: 3–5 days

Product name	Content	Packaging	Pieces per pallet
Abizol 2KS	30 l	Bucket	18

What parameters are essential in the quality appraisal of waterproofing materials for the underground elements of a building?

Waterproofing	Defines resistance to water pressure
Expansion at maximum tensile force	A parameter defining physical properties of a product
Tear strength	Tear resistance of underground waterproofing
Shear force resistance	Resistance to shearing forces at filling and ground settling and subsidence
Durability <ul style="list-style-type: none"> • Resistance to artificial aging • Resistance to chemicals 	Long life of a product
Elasticity at low temperatures	Defines if a material stays elastic at low temperatures
Contaminants	Resistance to harmful substances which may penetrate into the soil



Tack-R KMB 2K 2-Component Polymer Modified Bitumen Coating

2-component, fiber reinforced, highly elastic polymer modified bitumen coating for waterproofing of buildings in below ground structures.



APPLICATIONS:

- Sealing against ground moisture and water, including water load at constant pressure of building in below ground structures
- Dedicated for external walls, foundations, basements floors

BENEFITS:

- Quick hardening by chemical reaction
- Rain resistance after 5 h
- Reinforced with fibers-tear resistance
- Waterproof under pressure 0,75 MPa (7,65 m water column)*
- Do not flow down on vertical substrates
- Ecological product – does not contain organic solvents
- Meets the requirements of DIN 18 195

TECHNICAL PARAMETERS:

- Ingredients: polymere modified bitumen, mineral fillers, reinforcing fibers, water
- Consistence: thick
- Colour: black-brown, after curing black
- Density: 1,15 kg/dm³
- Application temperature: +5°C to +30°C
- Fresh layer thickness: cca. 2 mm
- Dry mass content: 75%
- Pot life: 1 h (+20°C)
- Curing time: 3–5 days
- Consumption
 - for non pressing ground water 4,5 kg/m²
 - for pressing ground water 5,5-6,0 kg/m²

Product name	Content	Packaging	Pieces per pallet
Tack-R KMB 2K	30 kg	Bucket	18

Tack-R TF10 S32 Bitumen Membrane

Tack-R TF10 S32 is a torch-on foundation bituminous membrane with polyester reinforcement. It is modified with SBS.



APPLICATIONS:

- Waterproofing of vertical and horizontal underground parts of the buildings
- First and/ or second layer in multilayer systems

TECHNICAL PARAMETERS:

- Reinforcement: non-woven polyester
- Thickness: 3,2 mm
- Top side: polyethylene foil
- Bottom side: polyethylene foil
- Elasticity at low temperature: ≤ -10°C

Product name	Content	Packaging	m ² per pallet
Tack-R TF10 S32	35 kg	Roll 10 x 1 m	200

Tack-R SF20 S25 Bitumen Membrane



Tack-R SF20 S25 is a self-adhesive foundation bituminous membrane with polyester reinforcement. Modified with SBS and additives improving adhesion parameters.

APPLICATIONS:

- Waterproofing of underground parts (one-layer vertical systems or two-layers horizontal systems)

TECHNICAL PARAMETERS:

- Reinforcement: polyester textile
- Thickness: 2,5 mm
- Top side: polypropylene textile
- Bottom side: protective silicone foil
- Elasticity at low temperature: $\leq -20^{\circ}\text{C}$

Product name	Content	Packaging	m ² per pallet
Tack-R SF20 S25	32 kg	Roll 10 x 1 m	240

Tack-R Green S40 Bitumen Membrane



Tack-R Green S40 is a torch-on foundation bituminous membrane with polyester reinforcement. It is modified with SBS. It is confirmed by FLL certificate to be resistant to root penetration.

APPLICATIONS:

- Waterproofing of underground parts (one-layer vertical systems or two-layers horizontal systems)

TECHNICAL PARAMETERS:

- Reinforcement: non-woven polyester
- Thickness: 4,0 mm
- Top side: mineral
- Bottom side: polyethylene foil
- Elasticity at low temperature: $\leq -20^{\circ}\text{C}$

Product name	Content	Packaging	m ² per pallet
Tack-R Green S40	38 kg	Roll 7,5 x 1 m	150

What are elastic sealing mortars?

The elastic sealing mortars are multi-component materials based on the cement-polymer technology which ensures waterproofing without the necessity of applying thick layers of the material. Thanks to their enhanced elasticity, the sealing mortars are perfect for bridging and sealing of scratches and cracks. They are solvent-free, resistant to aggressive agents in the ground and environmentally-friendly.

The sealing mortars can be applied on damp surfaces. They form coatings resistant to the freezing and thawing cycles and they retain elasticity even at low temperature.



Hydro 2K

Waterproofing Mortar

2-component, durable and flexible waterproofing mortar, resistant to positive and negative water pressure.



APPLICATIONS:

- Terraces and balconies
- Waterproofing in damp and wet areas, including: swimming pools, washrooms, showers or bathrooms, garden ponds or industrial water tanks

BENEFITS:

- Can be applied on very damp substrates
- Resistant to frost and ageing
- Resistant to aggressive chemical environments
- Crack-bridging ability
- Very good adhesion
- Resistant to scratching, good load capacity and high vapour permeability
- Fast curing (can be tiled and walk on after 24 h)
- Environmentally friendly, contains no solvents

TECHNICAL PARAMETERS:

- Consumption per 1 mm: 1,5 kg/m²
- Consumption against moisture and non-pressure water: min 1,5 mm, ca. 2,3 kg/m²
- Against pressure and ground water, water tanks: min 2,5 mm, ca. 3,7 kg/m²

Product name	Content	Packaging	Pieces per pallet
Hydro 2K	8 kg	Bucket	32
	24 kg	Bucket	32

Tape "TPER"

Recommended for use together with Hydro 2K, to ensure perfect waterproofing. Effectively protects joints against penetration of water and moisture.



TECHNICAL PARAMETERS:

- Composition: tape made from: polyester mesh. Central stripe is covered from up and bottom by thermoplastic elastomer, bottom side of elastomer is covered by polypropylene fabric
- Size:
 - total wide: 80–3 200 mm
 - elastomer wide: 80–3 200 mm
- Watertight under pressure: 0,5 MPa

Product name	Type	Dimensions	Packaging	Pieces per box	Pieces per pallet
Tape "TPER"	Tape	120 mm x 10 m	Box	36	504
	Tape	120 mm x 50 m	Box	16	96
	Wall cuff	120 x 120 mm	Box	–	–
	Floor cuff	425 x 425 mm	Box	–	–



Foundations

Gun Foam Adhesive



A professional solution dedicated to mounting XPS boards to insulate building foundation. It has a perfect adhesion to bitumen membranes and waterproofing felts.

APPLICATIONS:

- Thermal insulation of foundations

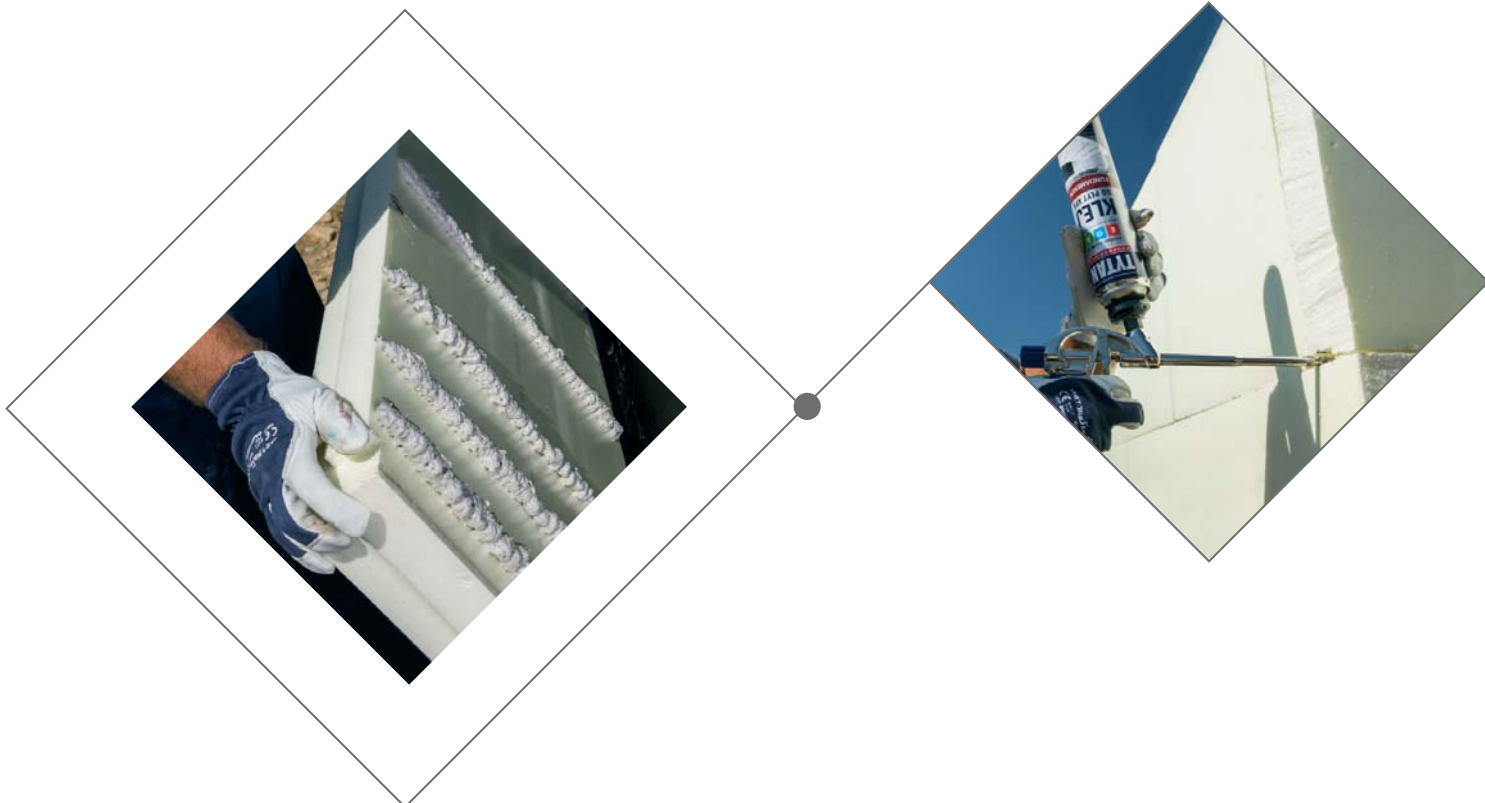
BENEFITS:

- Easy and comfortable usage
- Fully cured after 2 h
- Wide range of temperatures
- Perfect adhesion

TECHNICAL PARAMETERS:

- Yield: up to 14 m²
- Application temperature: 0°C to +30°C
- Open time: ≤ 5 min
- Correction time: ≤ 15 min
- Coefficient of thermal conductivity: $\lambda < 0,036 \text{ W/mK}$
- Shelf life: 12 months

Product name	Content	Packaging	Pieces per box	Pieces per pallet
Foundations Gun Foam Adhesive	750 ml	Can	12	624



Thermal insulation of the foundations

Thermal insulation of the foundations should be performed at all times, in buildings with or without basements. Uninsulated foundation walls due to their contact with cold, damp ground are responsible for up to 20% of heat loss from the building.

The thermal insulation of underground parts is applied to the depth of min 1 meter, that is below the freezing point of the ground. It is essential that the insulation is unbroken to eliminate thermal bridges. The most popular material are XPS panels – waterproof, extruded polystyrene panels which have a very high mechanical resistance. The XPS panels are laid directly on the waterproofing layer and then covered with a drainage membrane to secure the insulation against the damage which may be incurred during the filling of foundations. The XPS panels must not be fitted mechanically so that waterproofing layer is not disrupted.



WATCH
SELENA VIDEO:



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