

# PRIMERS AND MASTICS

BITUMEN PRIME COATING (PRIMER TECHNOMICOL No.01)

TECHNONICOL No.21

TECHNONICOL No.24

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

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TECHNONICOL Corporation produces bitumen based mastics and primers using long-term experience of application of these materials in projects of different complexity.

Bitumen mastics and primers have a vast area of application. Right material choice often impacts lifetime of coating, its operational properties and costs.

## CLASSIFICATION BY APPLICATION:

- Roofing
- Waterproofing
- Adhesive
- Protective
- Sealing

Roofing mastics, unlike waterproofing, meet higher requirements to the range of operational temperatures (from -50 °C to +140 °C) and elongation properties (500-900%).





# BITUMEN PRIMERS



## BITUMEN PRIME COATING (PRIMER TECNONICOL No.01)

The primer presents a mix of high-quality bitumen (with softening point of not lower than 80 °C) and specially selected organic solvents. It has an enhanced covering capacity, penetrability and short drying time. Ready-to-use primer can be applied directly on the surface, which provides additional convenience and shortens the duration of works.

### INTENDED USE:

Preparation (prime-coating) of surface before installation of roofing and waterproofing materials.



### ADVANTAGES:

- Ready for application
- High penetrability
- Enhanced covering capacity
- Short drying time

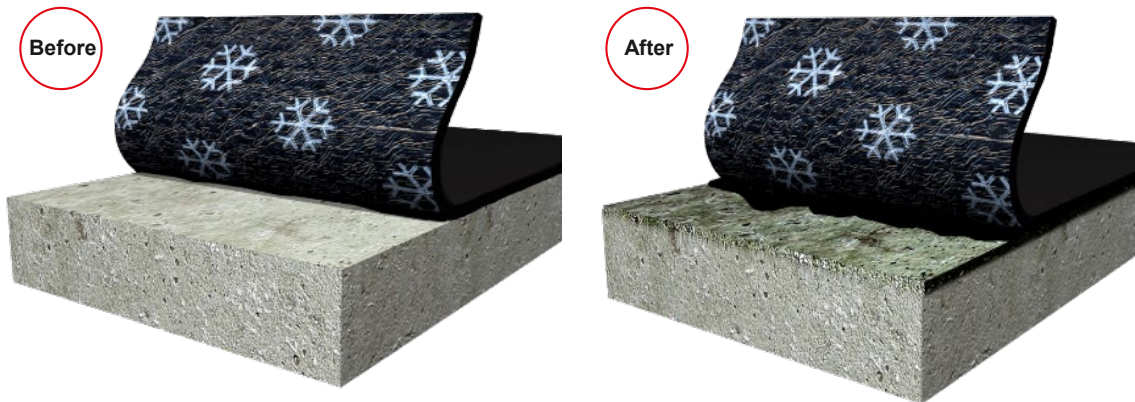


PROPERTIES	BITUMEN PRIME COATING
Drying time at 20°C, h	12
Relative viscosity, s	15-40
Consumption, l/m <sup>2</sup>	0.25-0.35
Bucket volume, l	3, 10, 20

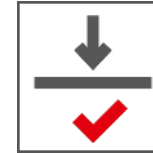
## WHY DO WE NEED PRIMERS?

Careful surface preparation is necessary for maximal adhesion of waterproofing layer.

Rejecting using a primer will only save around 1.5% of the roofing costs, but sufficiently increase the risk of destruction of the waterproofing system. Costs of repair will be incommensurably higher than the savings on the primer.

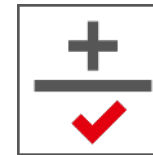


## MAIN FUNCTIONS OF THE PRIMER:



### **Primer significantly increases adhesion of roofing and waterproofing materials to the base**

Prime coating of the surface before installation of waterproofing materials significantly increases adhesion, which is a necessary requirement for further works of bitumen waterproofing system.



### **Primer additionally reinforces the base**

Primer correctly applied on the surface binds dust and small particles, fills the pores and small cracks, reinforcing the base.

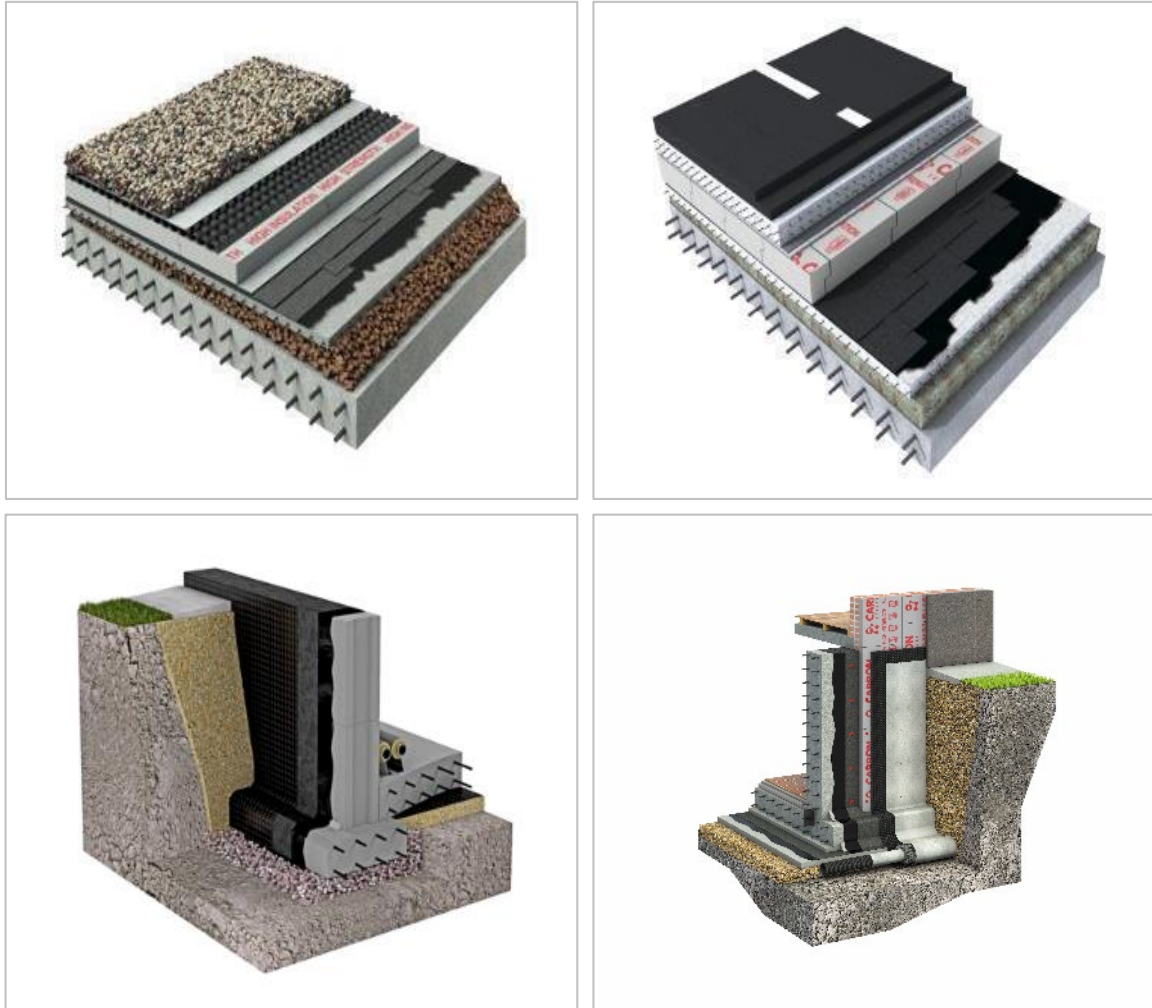


### **Primer increases the speed of works**

Prime coating moistens the surface, which increases the speed of torch-on application of roofing materials.



## EXAMPLE OF USE:



## CONSEQUENCES OF SAVING ON PRIMER:

Absence of primer leads to insufficient adhesion of waterproofing material to the base.



## HOW TO APPLY THE PRIMERS?

! Before applying the primer, clean the surface from dirt and dust.



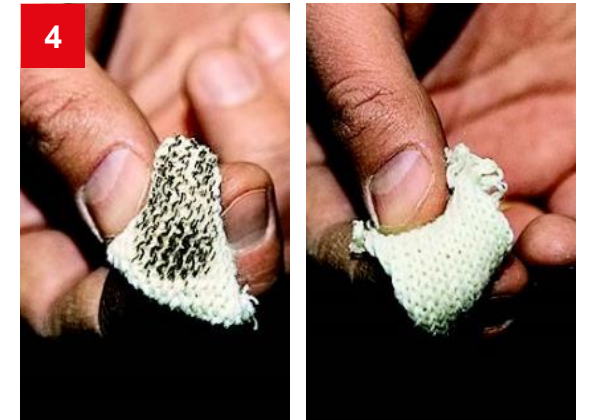
Carefully mix the primer by a low-speed drill with the special nozzle.



Apply the primer manually onto the cleaned surface with brushes, sweepers or paint rollers.



Corners and other hard-to-reach spots must be daubed with a hard-bristle brush.



Allow the treated surface to stand until the full drying of the primer. It is possible to check whether the primer has dried by pressing a dabber to it: there should be no bitumen traces on the dabber pressed to the dried primer.



# ROOFING AND WATERPROOFING MASTICS



## ROOFING AND WATERPROOFING MASTIC TECHNONICOL No.21

Ready to use mastic presents a mix of high-quality bitumen, special polymers, mineral fillers and organic solvents. Coatings on its basis are very flexible, heat and moisture resistant and have an excellent adhesion to the base. After drying, it forms a high-strength waterproofing layer that considerably increases the service life of protected structures.

### INTENDED USE:

- Installation of mastic roofs and repair of old roofs
- Waterproofing of underground structures (foundations, basements, piles, etc.)
- Waterproofing and anti-corrosion treatment of metal surfaces, including pipes and car bodies



### ADVANTAGES:

- Can be used within a wide range of operating temperatures
- Ready for application
- High tensile strength
- Protects the surfaces from corrosion in a long term



PROPERTIES	TECHNONICOL No.21
Elongation at break, %	≥500
Adhesion strength, MPa	concrete ≥0.6 / metal ≥0.9
Heat endurance, °C	≥110
Watertightness during 24 h at a pressure of 0.1 MPa	Pass
Consumption for installation of 1 layer, kg/m <sup>2</sup>	1.2-1.9
Bucket volume, kg	3, 10, 20

## WATERPROOFING MASTIC TECHNONICOL No.24

Ready to use waterproofing bitumen mastic presents a mix of high-quality bitumen, mineral fillers, special additives and organic solvents. It is used for waterproofing of concrete or wood surfaces of underground structures (foundations, basements, piles, etc.).

### INTENDED USE:

- Liquid waterproofing membrane of concrete, timber and other building constructions (foundations, basements, piles)



### ADVANTAGES:

- Ready for application
- Can be used at temperatures  $< 0^{\circ}\text{C}$
- Budget-friendly solution



PROPERTIES	TECHNONICOL No.24
Shear strength of adhesive bond, kN/m	$\geq 2.0$
Adhesion strength, MPa	concrete $\geq 0.1$ / metal $\geq 0.1$
Consumption for installation for 1 layer, kg/m <sup>2</sup>	1.0
Bucket volume, kg	3, 10, 20

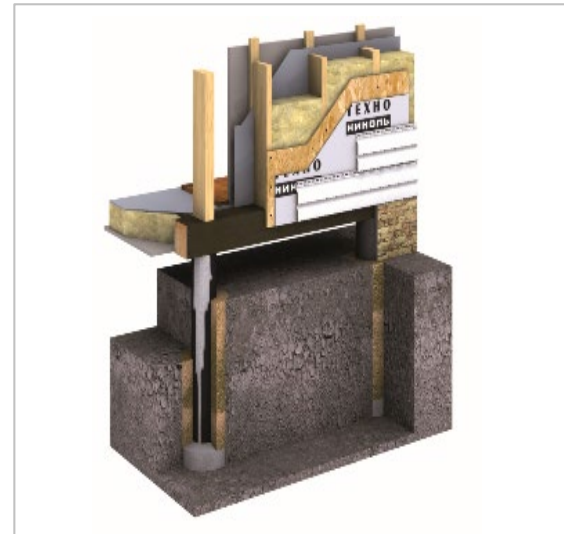


## WATERPROOFING OF BELOW-GRADE STRUCTURES

Surfaces exposed to moisture on a constant basis, e.g. walls of pools, foundations, basements, channels, reinforced concrete basins etc., need waterproofing, which is able to preserve its properties for a long period of time.

Waterproofing of underground (below-grade) structures refers to liquid waterproofing membrane. As a result of such treatment of a concrete or metal piles, a protective layer occurs, which helps to efficiently hold back moisture, preventing the main construction material from deformation.

Advantage of this type of foundation waterproofing - high-grade protection of the entire surface of a concrete slab or a metal pile.





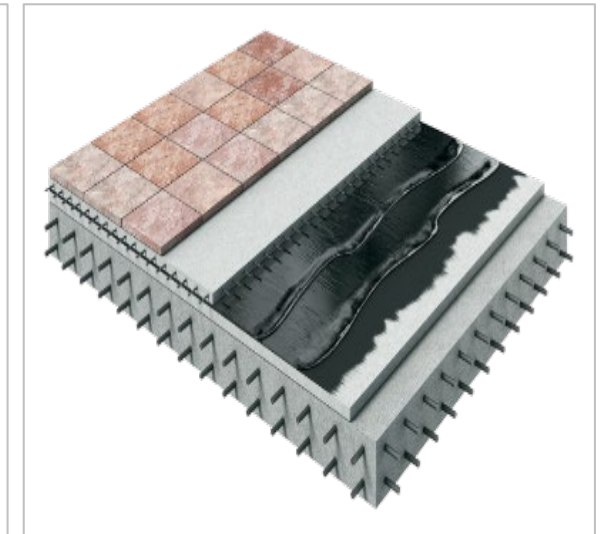
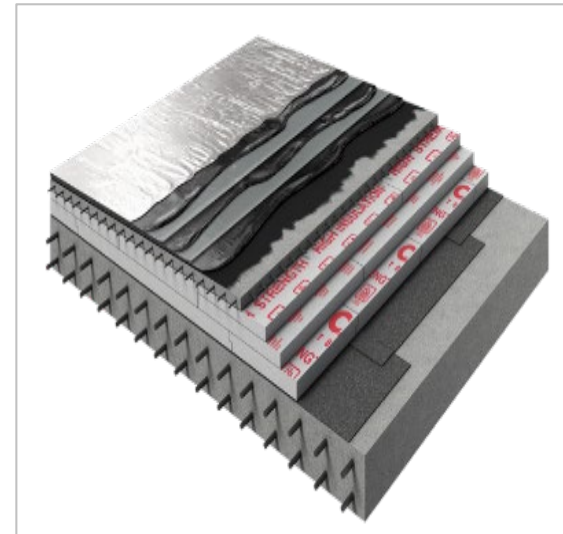
## INSTALLATION OF THE ROOF WATERPROOFING

Mastic roofing installation is chosen in several cases: when the roof is of a complicated shape and torch-on applied bitumen membranes cannot be used, and when torch-on application is difficult or cannot be conducted on industrial facilities with high level of fire-safety (power plants, elevators, etc.).

### MASTIC ROOFING PROVIDES:

- Seamless (monolithic) coating of a waterproofing layer
- Possibility of installation of a waterproofing layer without the use of flame
- Easy installation of a waterproofing layer in case of a large number of roofing elements

Mastic roofing installation is quite simple and does not require special equipment (gas cylinders, torches, etc.).

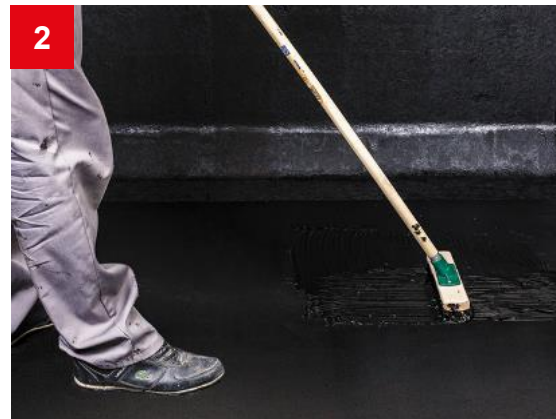


## MASTIC ROOFING INSTALLATION

! Prepare the surface and clean it from dust, dirt and grease in advance. Treat the surface with BITUMEN PRIME COATING. The primer should dry completely to conduct further works.



Apply the first layer of mastic on the primed surface.



Apply 3 layers of a roofing mastic (3-4 mm) by pouring and levelling over the surface with a squeegee or a brush.



Install reinforcement layers of a glass fiber between all the layers of mastic.



The resulting monolithic layer must be protected from the impacts of UV and temperatures.

# THANK YOU FOR ATTENTION!

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