



# LOGICBASE SINGLE-PLY PVC SYNTHETIC MEMBRANES

PVC MEMBRANES FOR UNDERGROUND WATERPROOFING SYSTEMS

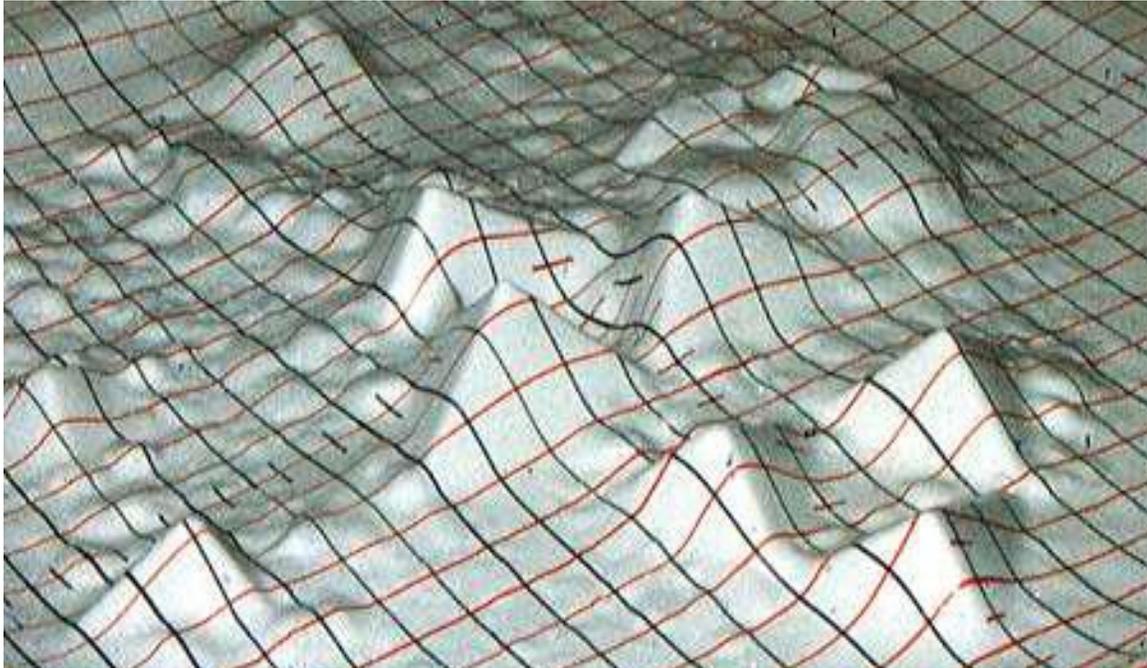
## LOGICBASE UNDERGROUND WATERPROOFING SYSTEMS

The development of underground space is a growing trend in modern cities, which suffer from a lack of area for development, population growth and increased traffic flows. Underground parking, metro stations, and stores have become common in many cities around the world. Underground structures are under the continuous influence of subsurface water and aggressive environmental conditions.

LOGICBASE is a homogeneous unreinforced multi-layer waterproofing membrane based on high-quality PVC-P. It is used for waterproofing of tunnels, basements and structures.



## UNIQUE PROPERTIES OF PVC



Results of a multi-axial puncture test on a PVC membrane sample in a pressure vessel at 10 bar (J. Chris Christensen et al.1995).



Unreinforced PVC-P membrane at a depth of 50 m.

## PRODUCTION FACILITIES

LOGICBASE is produced at LOGICROOF (Russia) and IMPER (Italy) factories.

Our materials are produced on advanced automated lines using co-extrusion technology, which insures material conformity.

We produce the compatible components that are necessary to build a waterproofing system.

A single source for your supplies represents a convenient and secure approach to seamless waterproofing system installation. Both factories are ISO 9001 certified.





# RANGE OF MATERIALS AND PRODUCT ADVANTAGES

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

## LOGICBASE V-SL

This premium quality material is used for waterproofing of tunnels, foundations, underground parts of buildings and structures.

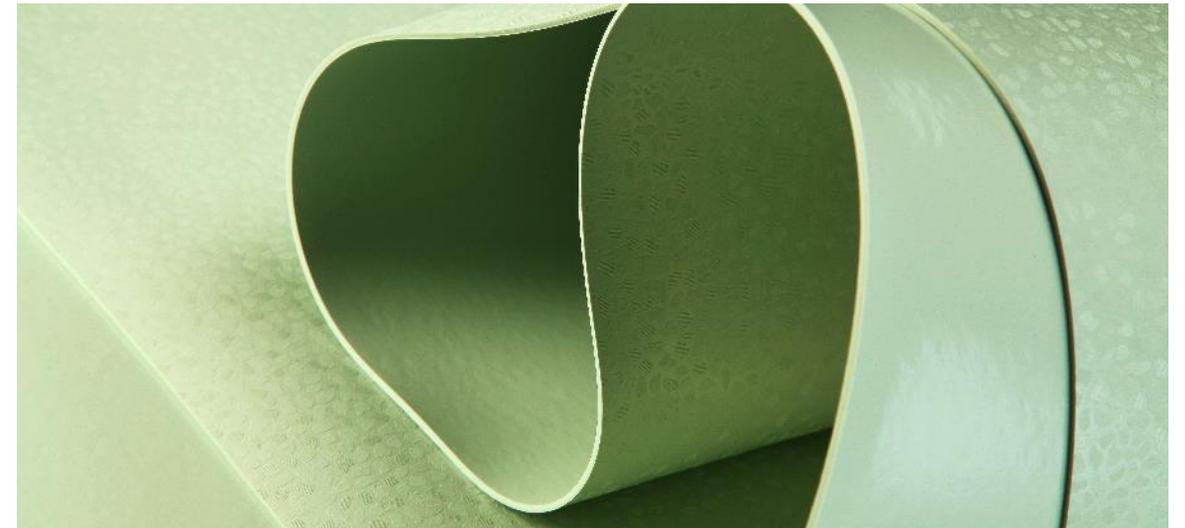
It has a yellow signal layer for prompt and easy detection of waterproofing layer damage due to installation or transportation. The advantages of the material are durability, high strength and elasticity, resistance to mechanical impact and high chemical stability.



## LOGICBASE V-ST

LOGICBASE V-ST is a special PVC membrane, which is used for waterproofing of tunnels, foundations, underground parts of buildings and structures as the second layer in double-layer PVC waterproofing systems with vacuum quality control. It is also used as a protective layer of the waterproofing PVC system.

A specially textured surface of the material prevents two membranes of a double-layer waterproofing system from sticking together during the vacuum quality control.



## LOGICBASE V-PT

This is a special PVC membrane, which is used as a protective layer of waterproofing PVC systems. The material is welded with the hot air to the main waterproofing layer at certain points along the whole area. Overlap seams are welded by hot air welding equipment.

High impact resistance of the material provides a reliable protection for the main waterproofing layer from mechanical damages during construction works.



## ECOBASE V

This is a simple brown single-layer membrane.

It is used for waterproofing building foundations, as well as shallow and artificial reservoirs.



## LOGICBASE FEATURES

We supply integrated waterproofing systems, which include a wide range of membranes, produce our own compatible additional components and offer practical assistance during all phases of design and implementation.



### **Durability**

Extremely high polymer stability and low water absorption make LOGICBASE very durable. It is made of highly stable virgin polymers using co-extrusion technology, thus it has very low water absorption.



### **Integrity**

Technical assistance for designers, engineers and investors throughout the entire process from design to realization of a waterproofing project. Production of compatible accessories.



### **Resistance to mechanical impacts**

LOGICBASE is able to withstand the impact of a falling object from a height of more than 700 mm (according to EN 12691). It is also resistant to static deformations.



### **High chemical stability**

Groundwater may contain aggressive substances. Waterproofing membranes made of polymers are resistant to them.



### **Elasticity at low temperatures**

One of the essential features of LOGICBASE is its elasticity at low temperatures, as low as -30 °C (for LOGICBASE V-SL).



### **High tensile strength**

Unreinforced LOGICBASE is strong enough to stay watertight even when stretched more than 200%.

## DURABLE PACKAGING FOR EVERY ROLL:

- Every roll of LOGICBASE is protected with individual UV- and contamination-resistant individual PE packaging
- All rolls of synthetic membranes have white labels identifying the membrane, its thickness, length and width
- Rolls of synthetic membranes are delivered on pallets
- Rolls of synthetic membranes should be stored lying down on pallets fully protected from moisture with clean canvas tarpaulins
- Keep the minimum distance of 1 m from any source of heat





# RANGE OF ACCESSORIES

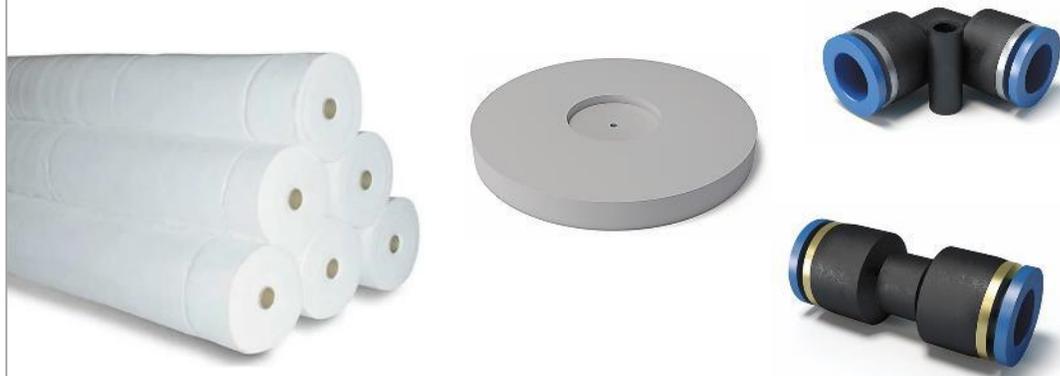
## WATERSTOPS



## INJECTION FLANGES AND PIPES



## GEOTEXTILE, RONDELS, FITTINGS, SUPPORTS



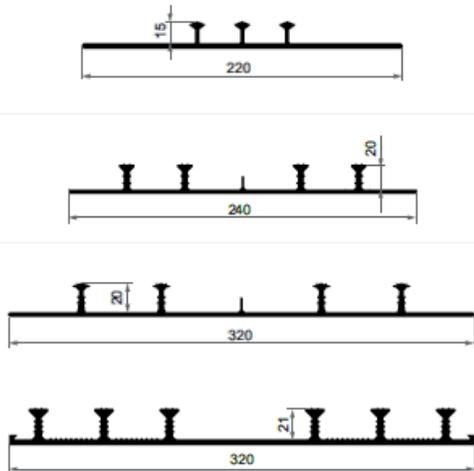
## INJECTION COMPOUNDS



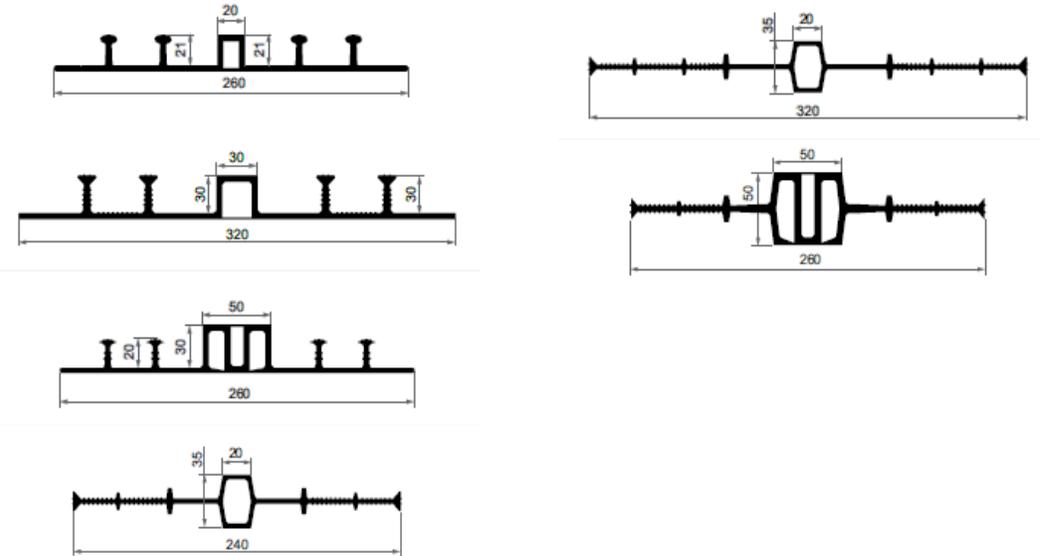
## TECHNONICOL WATERSTOP PROFILES

TECHNONICOL WATERSTOPs are elastic tapes made of plasticized PVC, designed for sealing construction and movement joints in concrete structures that are under continuous or temporary pressure from underground water.

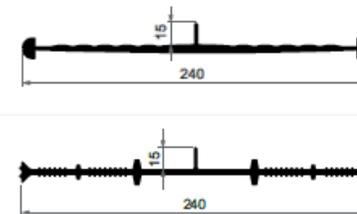
### EXTERNAL WATERSTOPS FOR COMPARTMENTALIZATION OF WATERPROOFING AND SEALING COLD JOINTS



## WATERSTOPS FOR SEALING DEFORMATION JOINTS



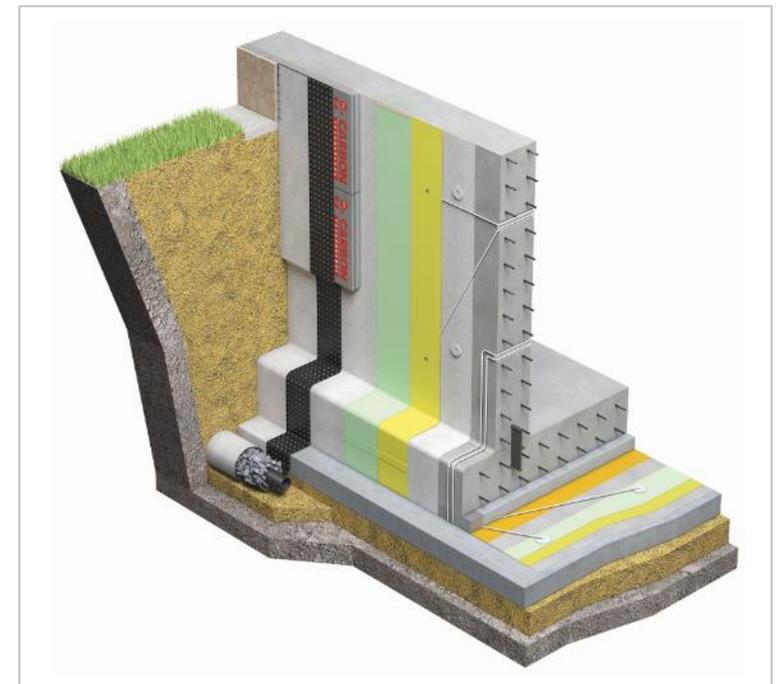
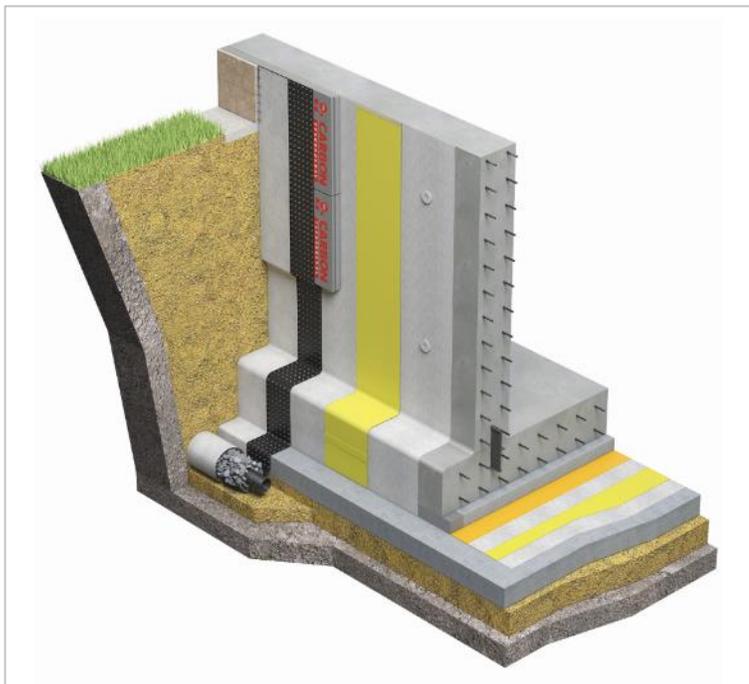
## INTERNAL WATERSTOPS FOR SEALING COLD JOINTS IN CONCRETE



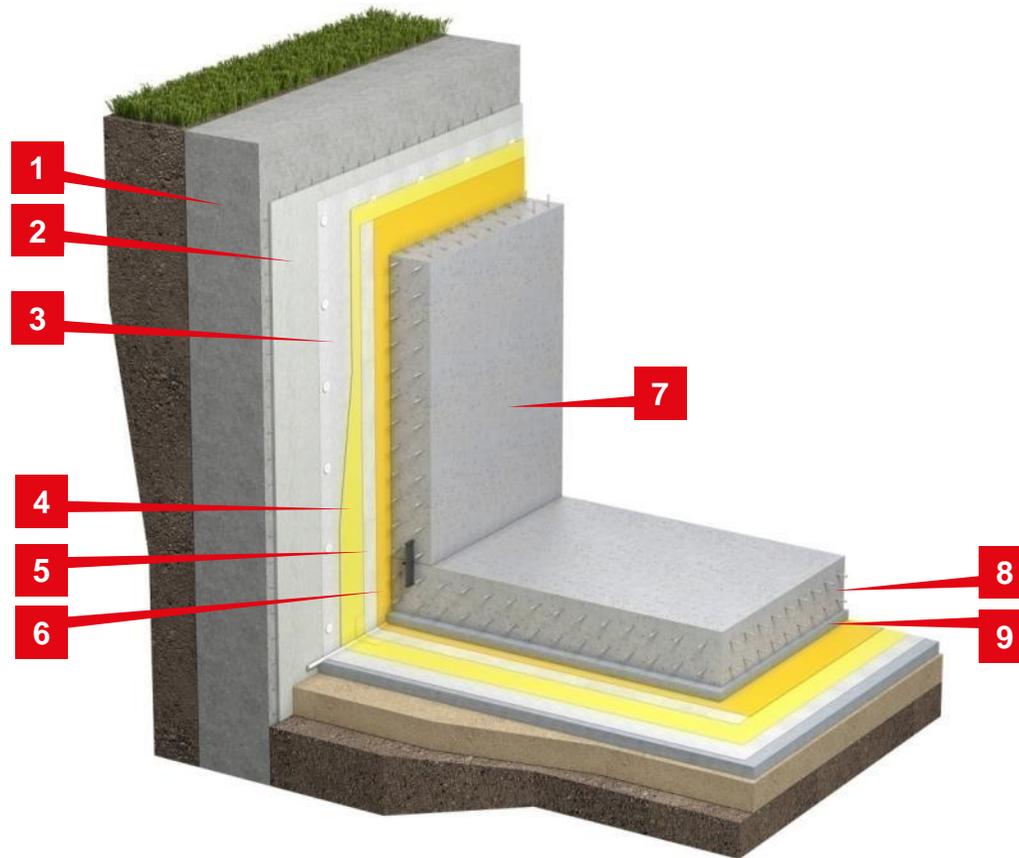
# WATERPROOFING SYSTEMS

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

SYSTEM	DESCRIPTION	EXCAVATION WITH BACKFILL	EXCAVATION WITH DIAPHRAGM WALL
TN FOUNDATION BARRIER	No repair system	+	+
TN FOUNDATION PROF	Repair system: compartmentalization with waterstops and Injection system	+	+
TN FOUNDATION EXPERT	Two-layer system with vacuum quality control	+	+

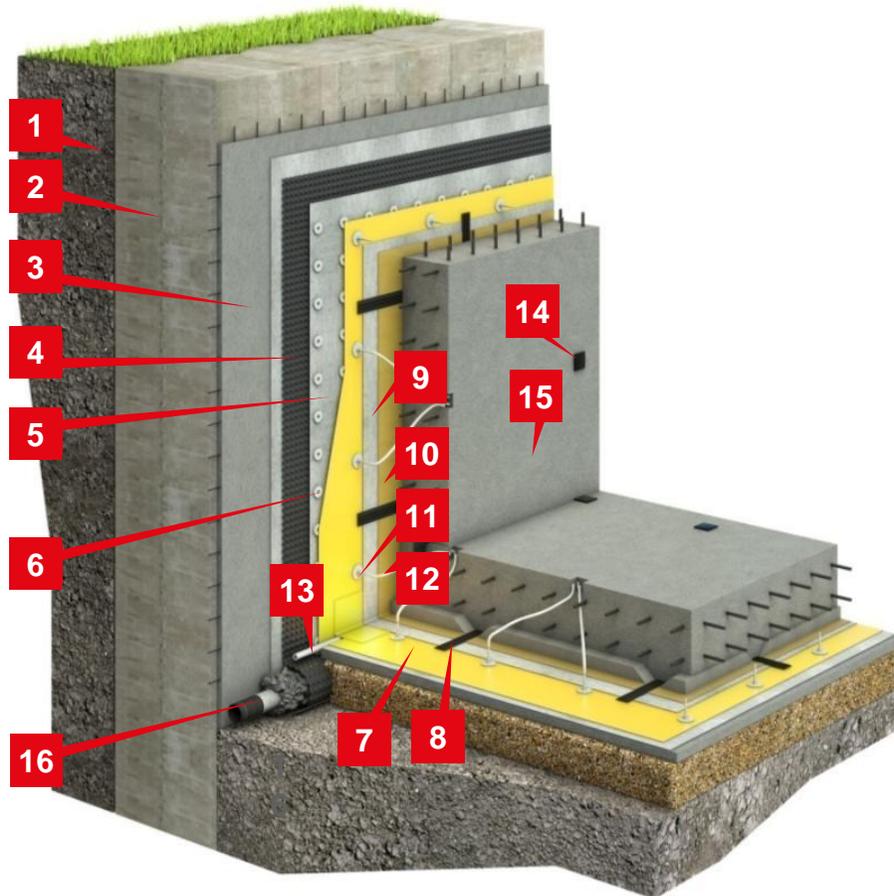


## TN FOUNDATION BARRIER for projects involving excavation with a diaphragm wall:



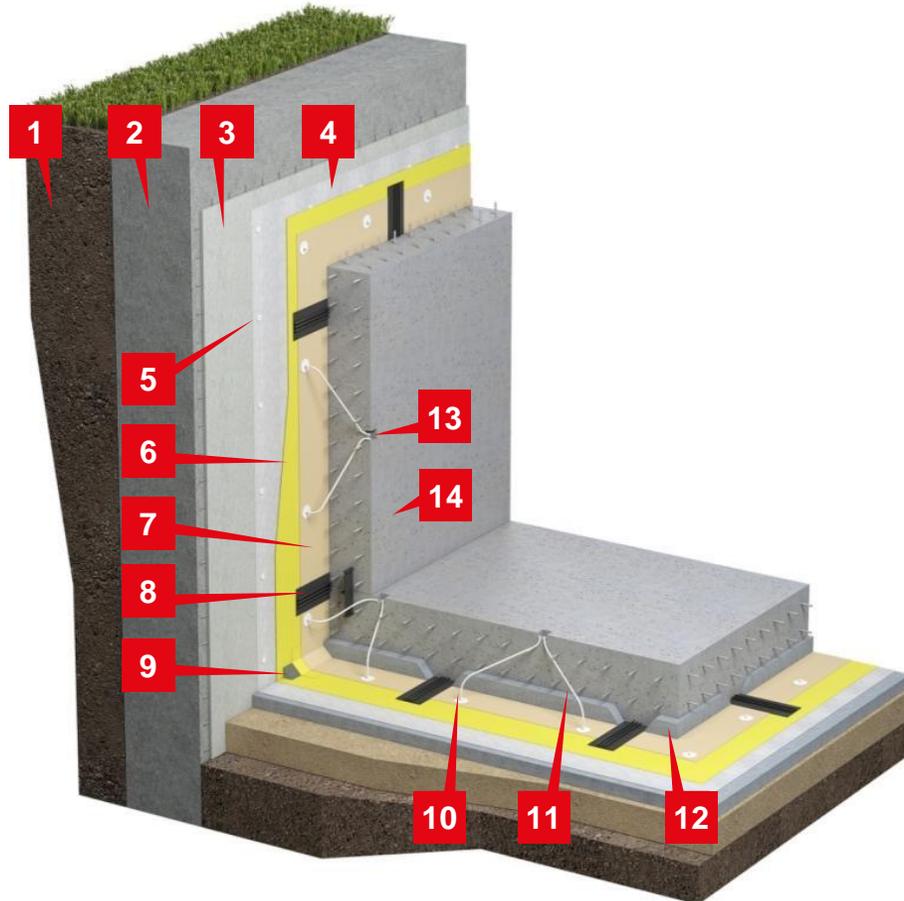
1. Diaphragm wall
2. Leveling plaster
3. Geotextile, density 500 g/m<sup>2</sup>
4. LOGICBASE V-SL PVC membrane
5. Geotextile, density 500 g/m<sup>2</sup>
6. 200 micron polyethylene film
7. Foundation wall
8. Foundation slab
9. Protective screed

## TN FOUNDATION PROF for projects involving excavation with a diaphragm wall:



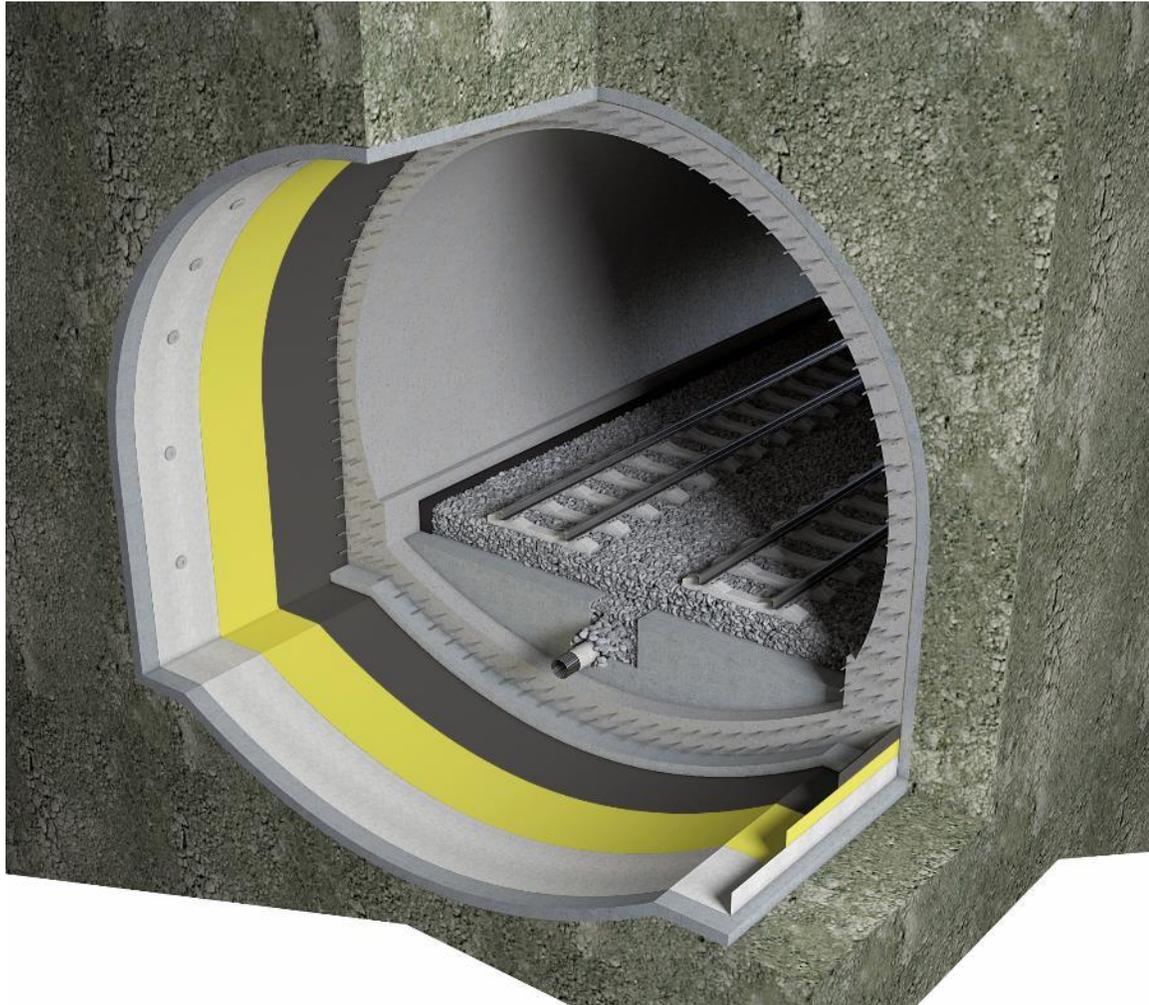
1. Soil
2. Diaphragm wall
3. Leveling plaster
4. Drainage membrane with geotextile PLANTER geo
5. Geotextile, density 500 g/m<sup>2</sup>
6. PVC fixing rondels
7. LOGICBASE V-SL PVC membrane
8. PVC waterstop
9. Geotextile, density 500 g/m<sup>2</sup>
10. 200 micron polyethylene film
11. PVC injection flange
12. Injection pressure hose
13. Corner expansion
14. Injection hose collector
15. Foundation wall
16. Drainage pipe

## TN FOUNDATION PROF with a protective membrane:



1. Soil
2. Diaphragm wall
3. Leveling plaster
4. Geotextile, density 500 g/m<sup>2</sup>
5. PVC fixing rondels
6. LOGICBASE V-SL PVC membrane
7. LOGICBASE V-PT protective PVC membrane
8. PVC waterstop
9. Polystyrene corner protection
10. PVC injection fittings
11. Injection pressure hose
12. Protective screed
13. Injection hose collector
14. Foundation wall

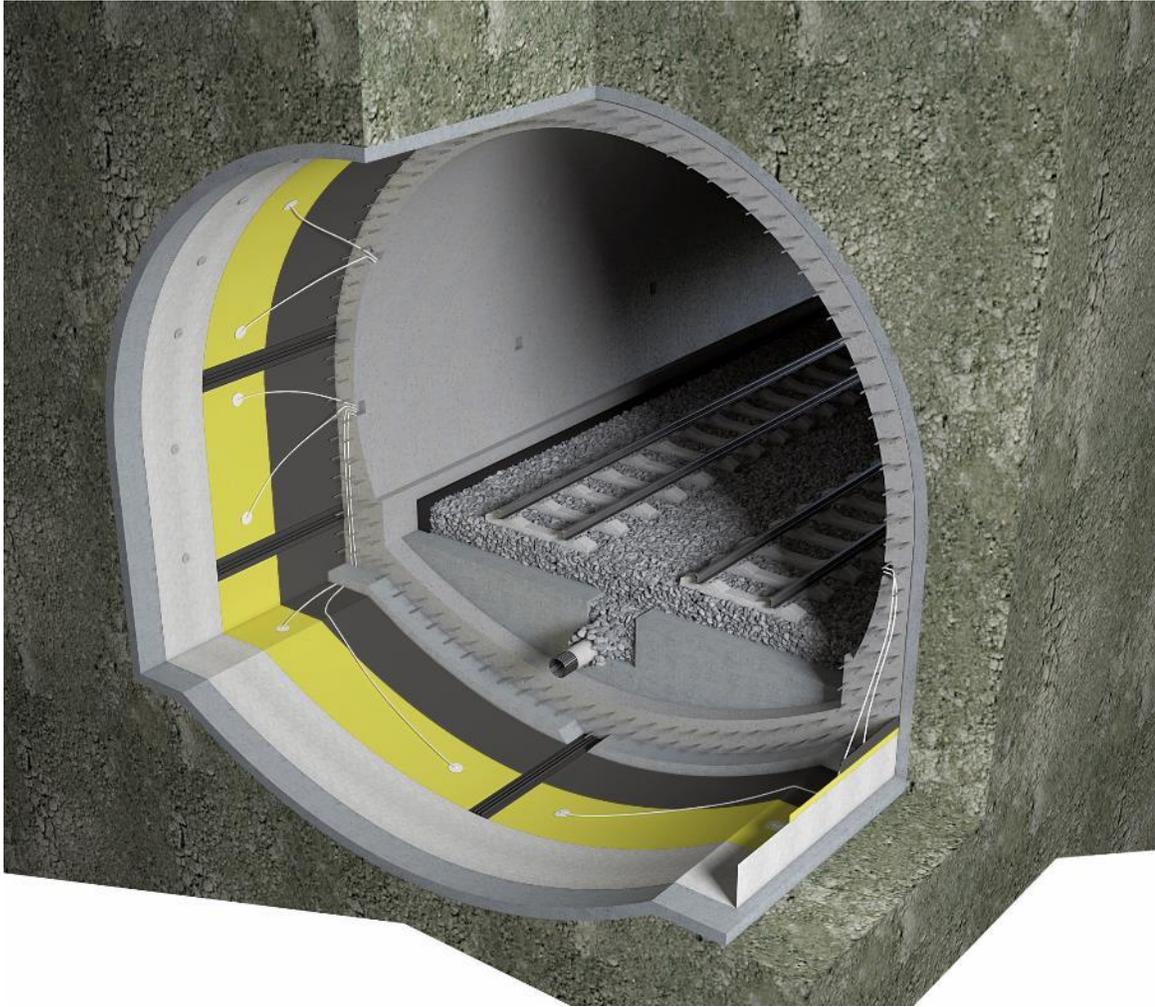
## TN TUNNEL BARRIER



## TN TUNNEL BARRIER DRAINAGE



TN TUNNEL PROF



TN TUNNEL EXPERT

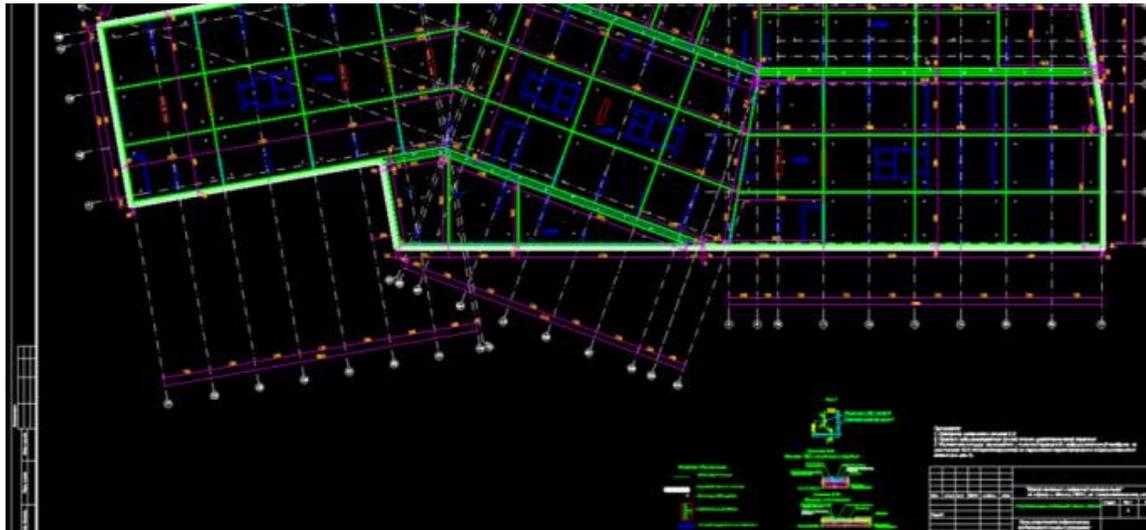
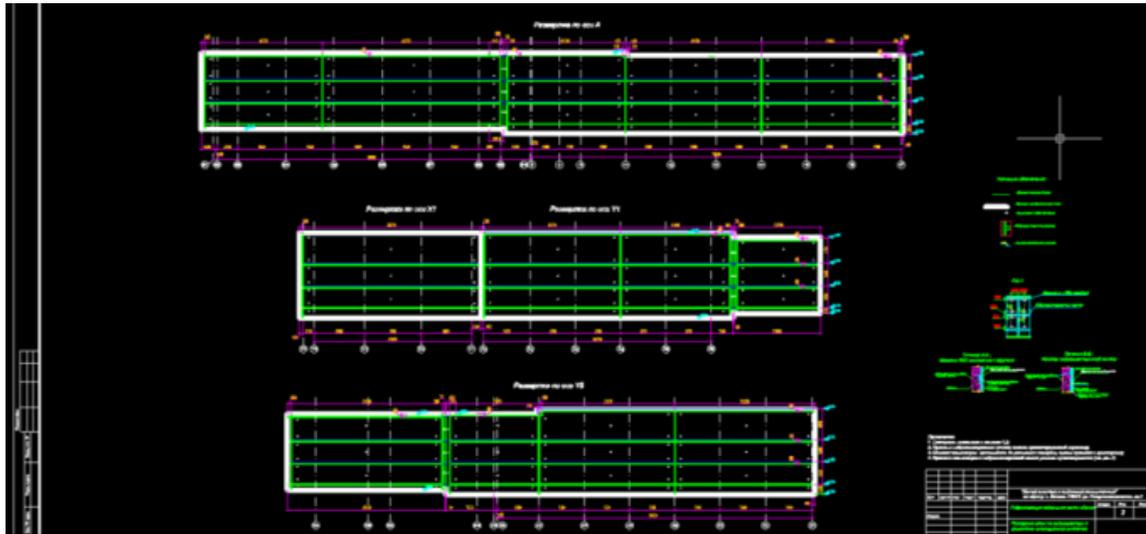




## TRAINING AND SUPPORT ON SITE

Regular trainings of application specialists are held in our training centers at LOGICROOF (Russia) and IMPER (Italy). Our specialists provide the following services on site:

- Monitoring installation quality
- Installation supervision and contractor training
- Consultancy regarding LOGICBASE application



## SUPPORT OF DESIGNERS

We assist designers by:

- Providing drawings of typical waterproofing details
- Creating customized solutions for waterproofing specific objects
- Developing complete waterproofing projects for specific objects including compartmentalization, injection system and any necessary details

# REFERENCES



KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

## BUSINESS CENTER "MOSCOW CITY", MOSCOW



Foundation waterproofing  
Area: 85,000 m<sup>2</sup>  
Material: LOGICBASE V-SL 2.0 mm

## SHOPPING AND ENTERTAINMENT CENTER, MOSCOW



Foundation waterproofing  
Area: 55,000 m<sup>2</sup>  
Material: LOGICBASE V-SL 2.0 mm

## TUNNEL ON THE ROAD M-27, RUSSIA-GEORGIA



Tunnel waterproofing  
Area: 35,000 m<sup>2</sup>  
Material: LOGICBASE V-SL 2.0 mm

## METRO STATION, ALMATY



Metro station waterproofing  
Area: 20,000 m<sup>2</sup>  
Material: LOGICBASE V-SL 2.0 mm

## LENINGRAD NUCLEAR POWER STATION, SAINT PETERSBURG



Waterproofing of foundation  
Area: 100,000 m<sup>2</sup>  
Material: LOGICBASE V-SL 2.0 mm

# THANK YOU FOR ATTENTION!

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