

# LOGICROOF SINGLE-PLY PVC SYNTHETIC MEMBRANES

SMART ROOFING SOLUTIONS FOR BUILDINGS AND STRUCTURES

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

[WWW.TECHNONICOL.IN](http://WWW.TECHNONICOL.IN)

TECHNONICOL was founded in 1992. We started as a local supplier of bitumen materials for the local market, and now we are one of the leading manufacturers and suppliers of waterproofing materials in the world.

## WORKING FOR YOU FOR MORE THAN 27 YEARS

As a producer of a wide range of waterproofing and insulating materials, we take into account every factor that affects durability, and we offer only proven solutions.

## OUR PRODUCTS ARE DESIGNED TO MEET YOUR REQUIREMENTS

TECHNONICOL's production capacities and equipment enable us to supply materials for large construction projects and to develop unique products based on research of our customers' requirements.

LOGICROOF synthetic membranes are high-tech materials designed for long-term waterproofing of buildings and structures.

LOGICROOF membranes are modern, reliable and durable waterproofing materials produced using the best-available co-extrusion technology.



TECHNONICOL factories are managed according to the ISO 9001 international standard. All materials meet health and environmental standards.

LOGICROOF synthetic membranes are produced at two plants:

- LOGICROOF (Ryazan, Russia)
- IMPER (Turin, Italy)

Extrusion technology enables the production of a completely void-free layer of PVC that does not absorb water.



- **2 PRODUCTION SITES**
- **5 PRODUCTION LINES**
- **PRODUCTION CAPACITY OF 44,000,000 m<sup>2</sup>**
- **CO-EXTRUSION TECHNOLOGY**



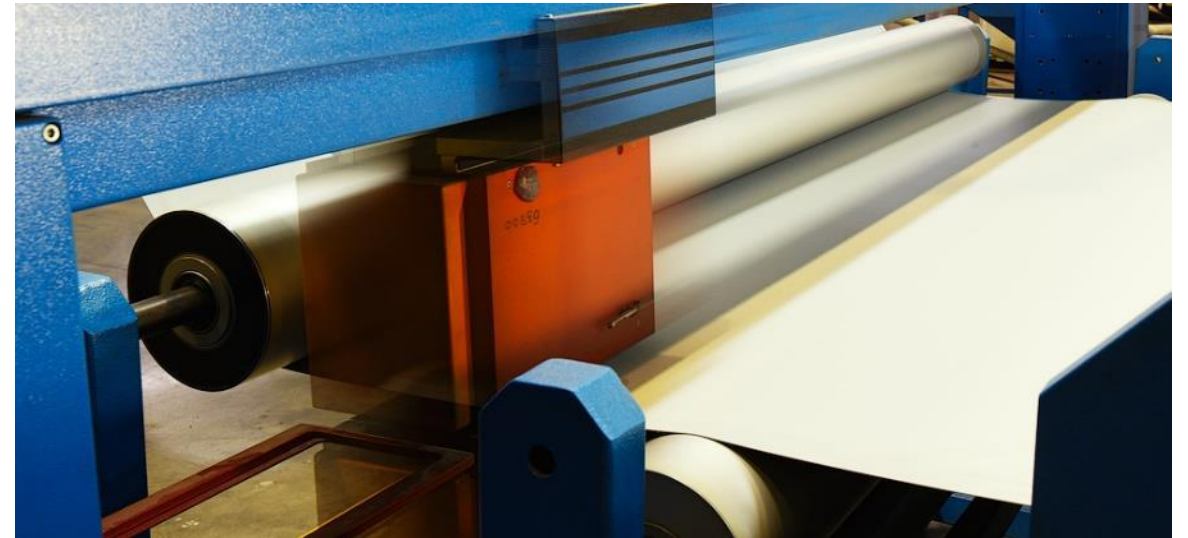
LOGICROOF synthetic membranes are high-tech materials designed for long-term waterproofing of buildings and structures.

## CONTROL OF THE MEMBRANE'S THICKNESS

Membrane thickness strongly influences the service life a roof. We use an optical system of quality control to guarantee uniform thickness of the membranes we produce.

## DURABLE PACKAGING FOR EVERY ROLL

Every roll of LOGICROOF membrane is protected in individual UV- and contamination-resistant PE packaging.





# ADVANTAGES

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LOGICROOF membranes are reinforced with a special polyester mesh, which ensures that the material is very strong. The longitudinal tensile strength of LOGICROOF V-RP is no less than 1,100 N/50 mm.

## MODERN TECHNOLOGY: LOGICROOF IS VERY DURABLE

The main reason for the ageing of roofing materials can be found in environmental factors. TRI-P® LOGICROOF membranes have a special 200 µm protective top layer with highly concentrated stabilizers that block UV radiation, which is harmful to the structure of the polymer.

## MORE FIRE SAFETY: LOGICROOF IS SELF-EXTINGUISHABLE

The plastic compound used in each layer of the membrane contains different types of high-quality flame retardants and fireproof filling. This slows oxidation at high temperatures and prevents the membrane from burning when unexpectedly exposed to sources of ignition.





Roofs made of LOGICROOF PVC membranes are solid, safe and attractive. A regularly serviced roof will protect your property for many years.

## AN AESTHETICALLY PLEASING ROOF

LOGICROOF synthetic membranes can be installed on roofs of any shape. We offer you a wide range of types and colors to choose from for even the most challenging design solutions and roof shapes. The material can be installed even on the steep roofs or on the roofs of the variable slope.

## SAFE INSTALLATION BY HOT-AIR WELDING

LOGICROOF synthetic membranes are installed using automated equipment without the use of an open flame. This technology ensures a homogeneous finish and a watertight surface – the resulting welded seam is as strong as it could possibly be!



LOGICROOF PVC membranes can be easily installed in frosty or wet weather, since they are highly flexible and perfectly suitable for welding.

## MARKED SHEETS MEANS LESS ROOM FOR MISTAKES

Special marking lines on LOGICROOF PVC membranes allow you to fix the sheet at the proper distance from the edge of the membrane, thus ensuring the strength of the seam. With our thorough manuals, you can rest assured that your membrane will be installed right and roofing will serve you for many years to come.

## ALLOWS INSTALLATION EVEN AT SUB-ZERO TEMPERATURES

Installation can be carried out all year round regardless of the season or the temperature. LOGICROOF membranes are perfectly suitable for welding, so much so that they can even be welded in cold conditions!





The high quality of LOGICROOF PVC membranes is backed up by the numerous certificates it has received from organizations all over the world.

## COMPLIANCE WITH EUROPEAN REQUIREMENTS

LOGICROOF PVC membranes comply with the EN 13956 standard for roofing materials made of plastic. Our materials are safe and environmentally friendly, and TECHNOMICOL continuously monitors the stated specifications of finished products.

### SINTEF APPROVAL:

- LOGICROOF membranes have been tested according to the EN 1297 (artificial ageing) standard. The results demonstrate that the membranes' stated basic physical and mechanical characteristics when artificially aged were not even slightly changed
- The membranes strength and elongation indices at maximum load were 0 and 2.5%, respectively, and the weld flexibility index at low temperatures demonstrated an impressive value of -40 °C
- A SINTEF certificate also verifies that the material is safe for humans and for the environment



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## FIRE SAFETY

LOGICROOF PVC membranes have been tested in combination with different types of insulating boards for compliance with Broof fire-resistance classes: T1, T2, T3 and T4. This means that LOGICROOF can be used on roofs in countries that have adopted the Broof standard for fire safety.

## WIND UP TESTS ACCORDING TO ETAG 006

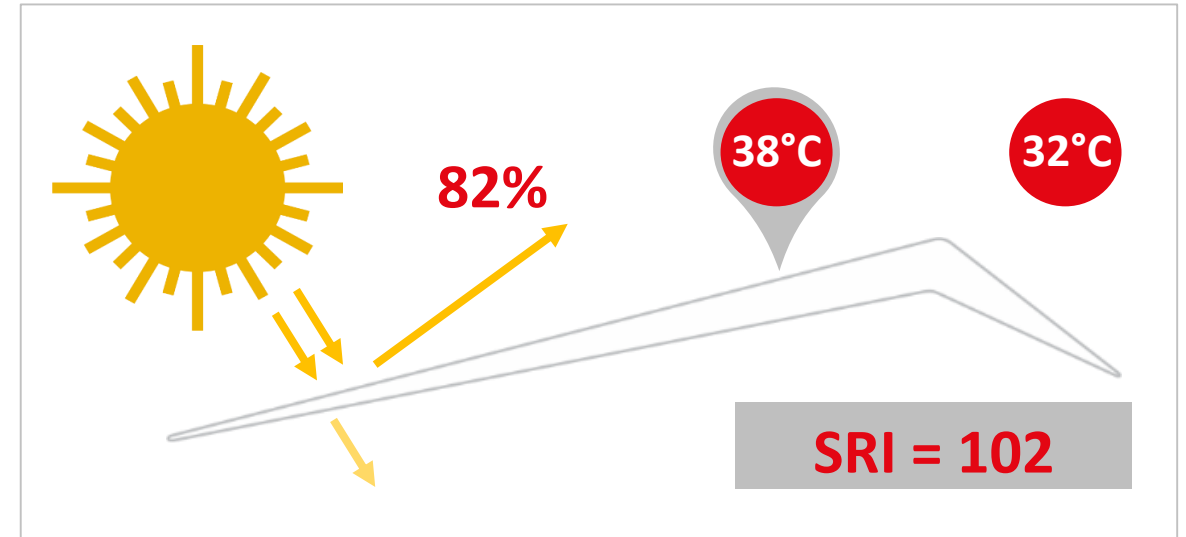
LOGICROOF PVC membranes are tested with numerous fastener systems for wind uplift force to comply with ETAG 006. For these tests, we work with BDA (Netherlands) and Constructech (Sweden).



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## HIGH SOLAR REFLECTION INDEX

In accordance with the tests carried out at the PRI independent laboratory (USA), the solar reflection index (SRI) for LOGICROOF WHITE is equal to 102 (at medium and high wind speeds). This is twice as high as the indices of light-grey membranes and 10 times as high as dark or black membranes.





# **RANGE OF MATERIALS**

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Synthetic membranes can be used for all types of roofing systems. Due to their excellent physical and mechanical characteristics, they are equally suitable for the installation of new roofs or to repair old ones.

## MARKING OF SYNTHETIC MEMBRANES:

LOGICROOF **V-RP**

### TYPE OF POLYMER

V – Vinyl (PVC)  
P – Polyolefin (TPO)

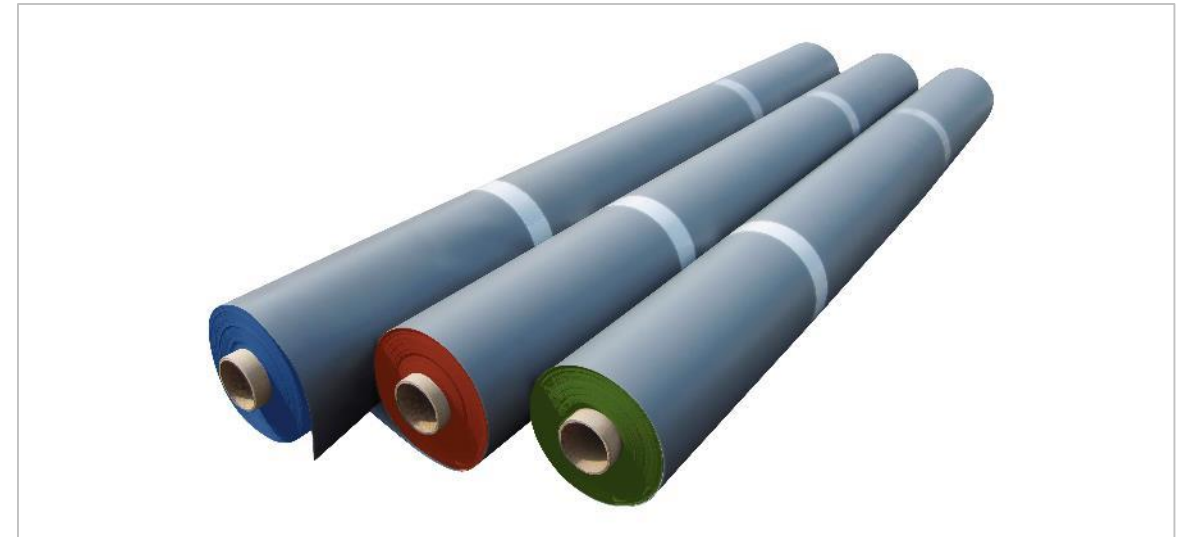
### ADDITIONAL SYMBOLS

T – Textured surface  
FB – Laminated with a geotextile  
fleece (Fleece Back)

### REINFORCEMENT TYPE

RP – Reinforcement  
Polyester  
SR – Sine Reinforcement  
GR – Glass fiber  
Reinforcement

- LOGICROOF V–RP is a PVC membrane reinforced with a polyester mesh
- LOGICROOF V–GR is a PVC membrane reinforced with glass fiber
- LOGICROOF V–SR is a non-reinforced PVC membrane



## LOGICROOF V-RP

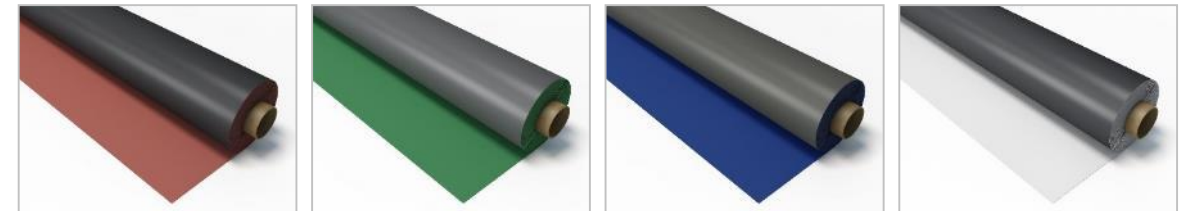
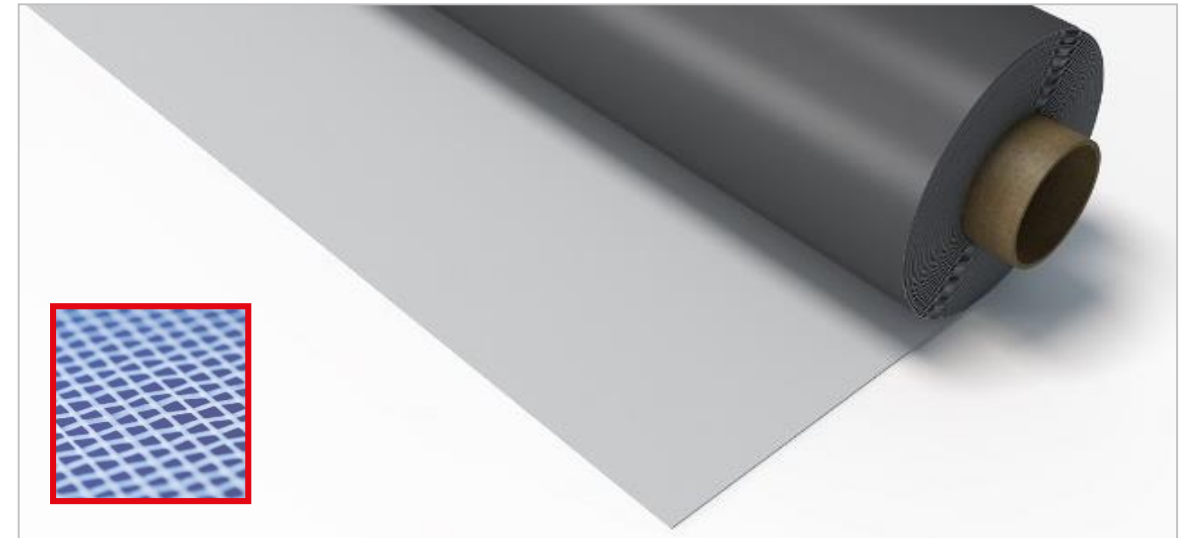
This is a premium quality PVC membrane, which is used for single-ply waterproofing of exposed flat roofs. It is fixed mechanically with hot air welding of overlaps.

Thickness: 1.2-2.0 mm.

### FEATURES:

- High shear resistance
- Wide range of colors: grey (standard), red, green, blue, white
- A minimum installation temperature is -20 °C

The LOGICROOF V-RP WHITE membrane is specially designed to reflect the sun (with an SRI of 102), thus reducing air-conditioning costs.





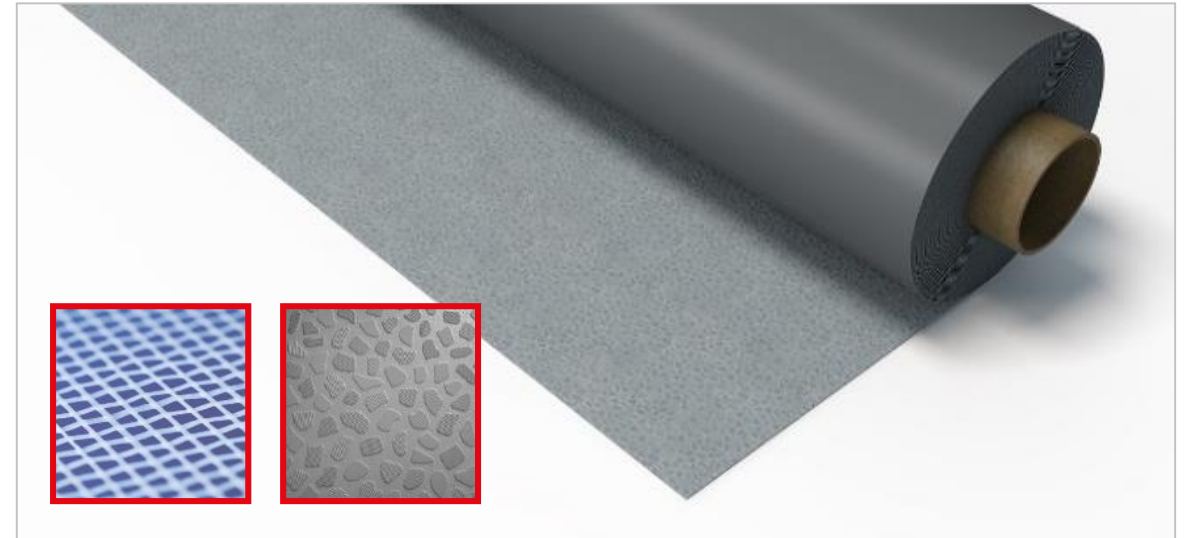
## LOGICROOF V-RP (T)

This is a premium quality PVC membrane, which is used for single-ply waterproofing of exposed flat roofs. The material has a non-slippery textured surface of the top layer. It is fixed mechanically with hot air welding of overlaps.

Thickness: 1.2-2.0 mm.

### FEATURES:

- High shear resistance
- Textured anti-slip surface
- A minimum installation temperature is -20 °C



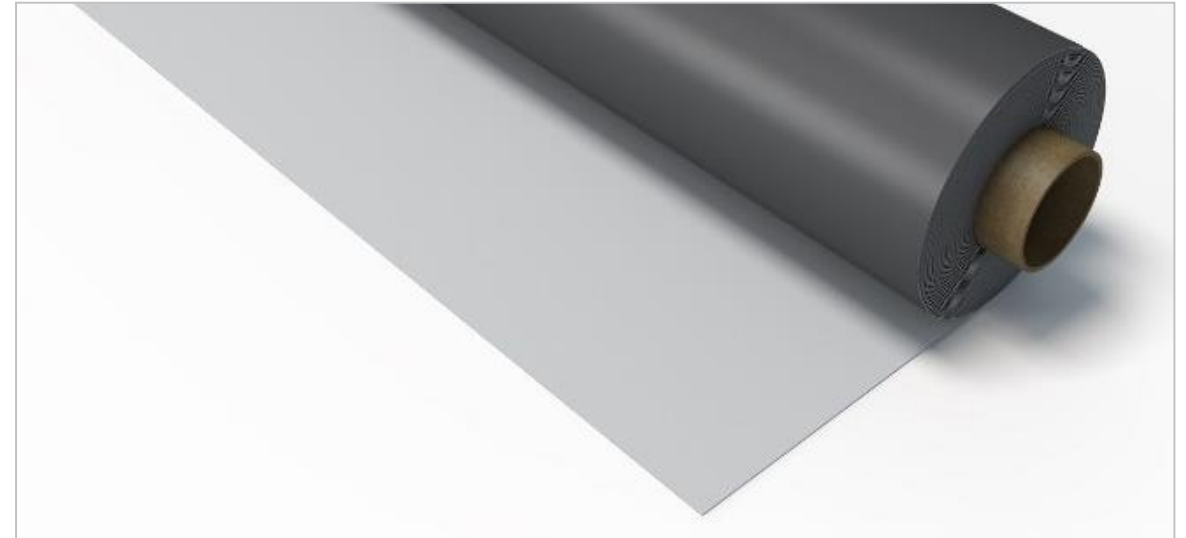
## LOGICROOF V-SR

This is a special PVC membrane without reinforcement, which is designed for corners reinforcing and sealing of connections between different roof elements such as piping, funnels, aerators and other protruding objects. The material is welded with the hot air to the main waterproofing layer.

Thickness: 1.5 mm.

### FEATURES:

- High elasticity – stretches after being heated with hot air
- A minimum installation temperature is -20 °C



## MECHANICALLY FIXED ROOFING SYSTEM

This system provides the fastest installation under varied weather conditions. It is most popular for non-accessible roofs with large surface areas.

It has a high level of resilience to strong wind and movement of the structure.

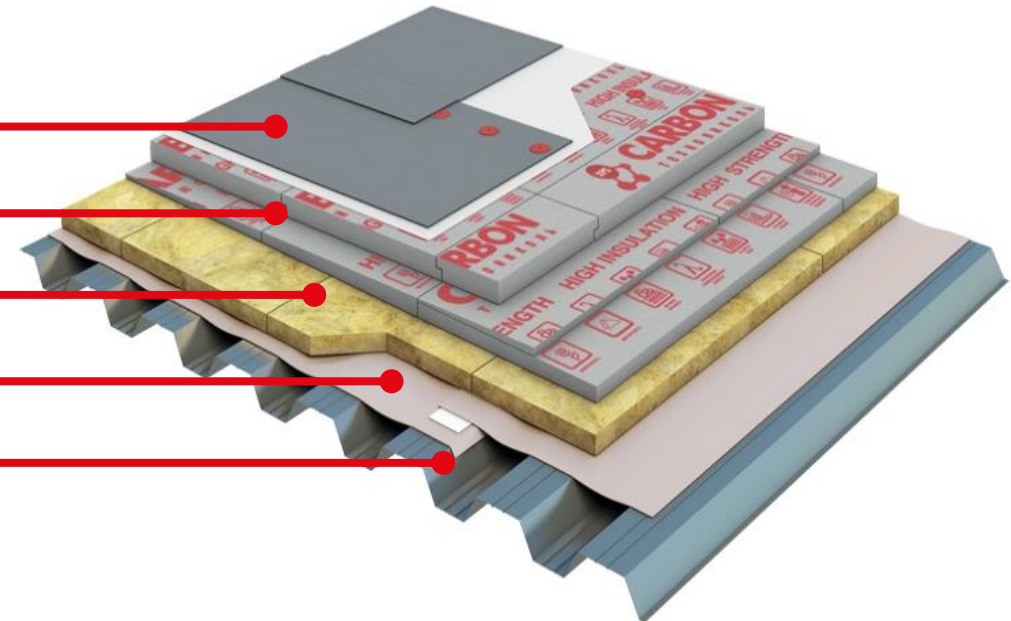
LOGICROOF V-RP PVC membrane

TECHNONICOL CARBON XPS

TECHNOROOF N30 stone wool

VAPORTOP CA 500 vapour barrier

Corrugated steel sheet





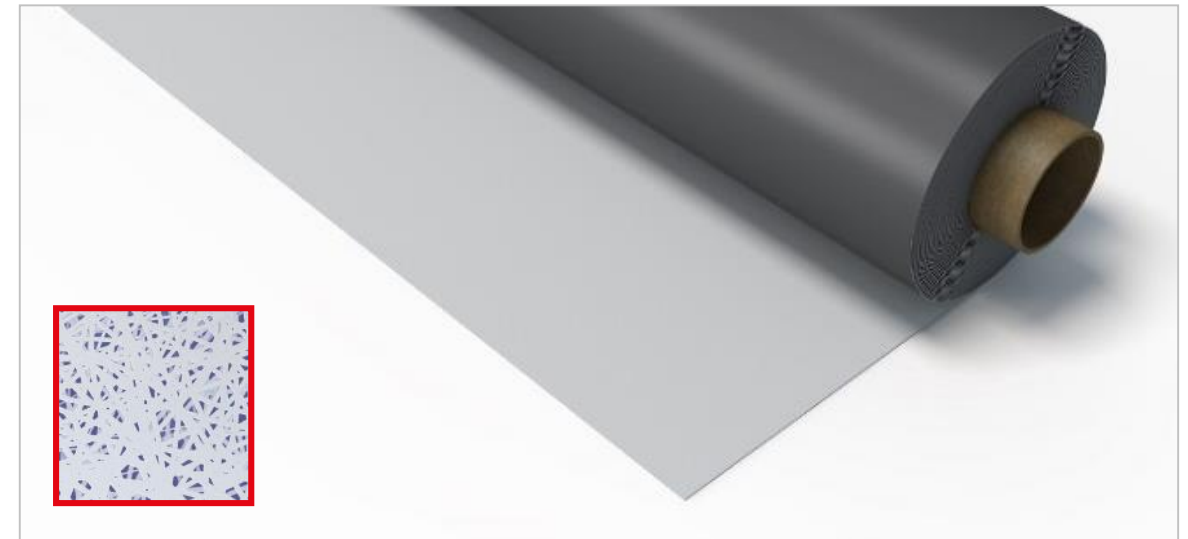
## LOGICROOF V-GR

This is a premium quality glass fiber reinforced PVC membrane, which is used for single-ply waterproofing of ballasted and inverted non-exposed flat roofs. Glass fiber reinforcement provides an increased resistance to punctures and mechanical impacts of sharp objects. Anti-root and fungicide additives are part of the compound. The material is loose laid, while overlaps are welded with the hot air.

Thickness: 1.5 mm-2.4 mm.

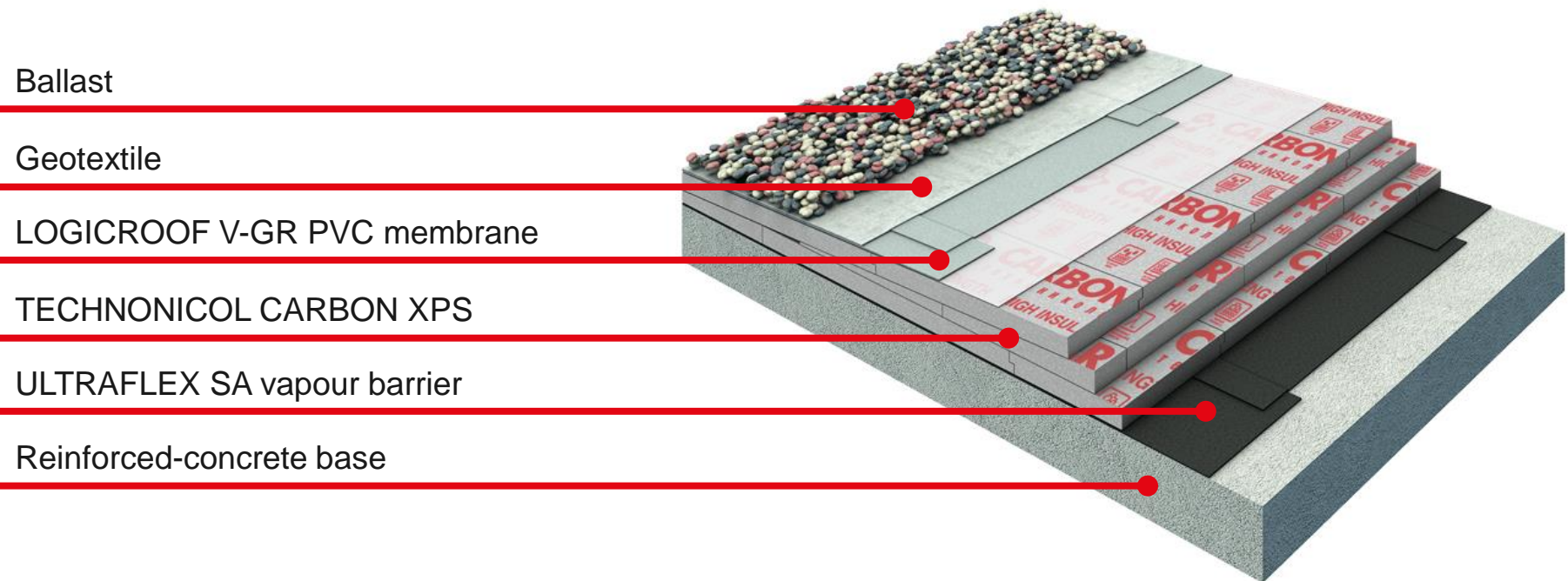
### FEATURES:

- Extra stability due to glass fiber reinforcement
- High puncture and impact resistance
- Fungi- and root-resistant
- A minimum installation temperature is -20 °C



## BALLASTED ROOFING SYSTEM

In this system the membrane is protected against UV radiation and life-loads by an upper layer of ballast or paving slabs. It is used for terraces and accessible roofs.



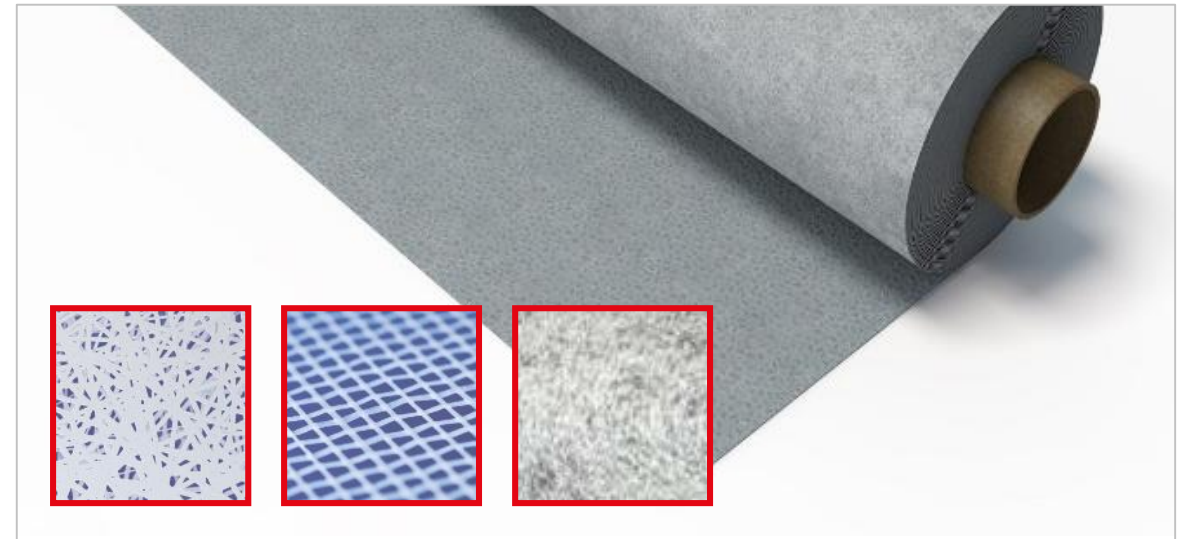
## LOGICROOF V-RP/V-GR FB

LOGICROOF V-RP FB and LOGICROOF V-GR FB PVC membranes are the same as standard V-RP and V-GR membranes, but they have a bottom surface laminated with a geotextile fleece. These membranes are designed for use in fully adhered roofing systems. The geotextile is both a separation layer and a contact surface for applying an adhesive without substantial contact with the PVC membrane. All rolls have a fleece-free overlapping area for hot-air welding.

Thickness: 1.2-2.0 mm.

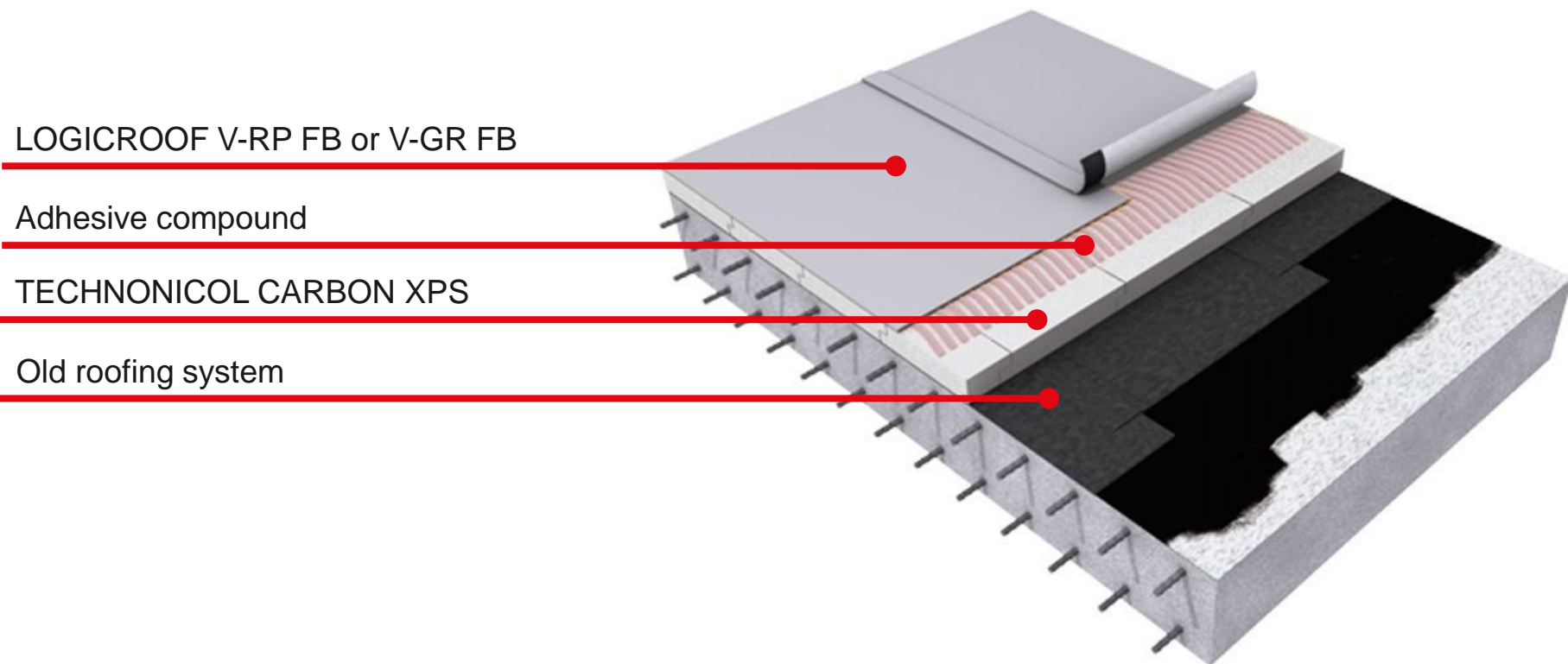
### FEATURES:

- May be directly applied to an old asphalt roof: ideal for re-roofing
- This type of roofing system has very high wind uplift resistance
- A minimum installation temperature is -20 °C



## FULLY ADHERED ROOFING SYSTEM

This special roofing system is used when mechanical fixation of the membrane to a substrate is not possible or the highest resistance against wind upload is required. This is also a practical solution for roofs renovation.





PRODUCT	LOGICROOF V-RP	LOGICROOF V-GR	LOGICROOF V-SR
Thickness, mm	1.2, 1.5, 1.8, 2.0	1.5, 2.0, 2.4	1.5
Dimensions of the roll, m	25, 20, 15, 15 x 2.1	20, 15, 15 x 2.05	20 x 2.1
Flexibility at low temperature, °C	≤-30	≤-25	≤-30
Tensile strength L / T	≥1100 / ≥900 N/50 mm	≥800 / ≥600 N/50 mm	≥16 MPa / ≥15 MPa
Elongation, %	≥18	≥200	≥200



Our company supplies more than membranes; we also deliver the components necessary to build top-quality roofs.

## PREFABRICATED ELEMENTS

Prefabricated details from PVC. Welded by hot air. Completely compatible with LOGICROOF PVC membranes.

## WALKWAY PUZZLE

A walkway puzzle is used for maintenance of footpaths on roofs made of PVC membranes. Size: 600 x 600 mm. Thickness: 9.3 mm.

## LAMINATED METAL SHEETS

Laminated metal is used to fasten a membrane in roof seams and to walls and parapets, as well as for manufacturing protective skirting, joints, elements of external drains and fascia.



# RELIABILITY

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# DURABILITY IS OUR MAIN CONCERN

It is crucially important that every building have a durable roof. It should provide a long service life without substantial repair.

Here are some of the reasons for roofing system failures, according to European statistics.



## 45% FAULTS AND ERRORS DURING INSTALLATION

We provide our customers with installation manuals and offer workshops and training, as well as assistance during installation.

## 7% ROOFING MATERIAL DAMAGE DURING INSTALLATION

We recommend the use of materials with a thickness of more than 1.5 mm to minimize the possibility of membrane damage.

## 14% FAILURE OF ROOFING MATERIAL

We produce durable, high-quality materials for a variety of roofing solutions. Warranty applied.

## 34% IMPROPER DESIGN

We assist designers and provide technical support at all stages of the construction from design to commissioning.



If you want to gain more experience in working with synthetic membranes and also learn secrets and field tips, then you are welcome at one of TECHNOMICOL training centers: LOGICROOF (Ryazan, Russia), IMPER (Turin, Italy).

## ADVANTAGES PROVIDED BY TRAINING COURSES:

- Increase in productivity and quality of workmanship
- Acquisition of experience in working with state-of-the-art materials and methods
- Minimization of issues on the part of the client and supervising bodies when hiring you for work
- Execution in compliance with the latest requirements of the modern construction market in terms of regulations and quality



## RETAIL CENTRES:

- IKEA in total: 1,003,000 m<sup>2</sup>
- Globus: 150,000 m<sup>2</sup>
- METRO: 120,000 m<sup>2</sup>
- LEROY MERLIN: 405,000 m<sup>2</sup>
- Auchan: 80,000 m<sup>2</sup>
- CASTORAMA: 62,000 m<sup>2</sup>
- OBI: 30,000 m<sup>2</sup>

## LOGISTICS CENTRES:

- PNK: 1,200,000 m<sup>2</sup>
- Eurasia logistics: 602,000 m<sup>2</sup>
- Logopark: 280,000 m<sup>2</sup>
- Chaika: 100,000 m<sup>2</sup>
- FM LOGISTIC: 85,000 m<sup>2</sup>





## PLANTS:

- PEUGEOT: 130,000 m<sup>2</sup>
- VOLKSWAGEN: 120,000 m<sup>2</sup>
- LIEBHERR: 120,000 m<sup>2</sup>
- TOYOTA: 60,000 m<sup>2</sup>
- VOLVO: 44,000 m<sup>2</sup>
- RusVinyl: 22,000 m<sup>2</sup>



## AIRPORTS:

- Kurumoch: 15,000 m<sup>2</sup>
- Sochi: 7,000 m<sup>2</sup>
- Sheremetevo B,C,E: 120,000 m<sup>2</sup>



# THANK YOU FOR ATTENTION!

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