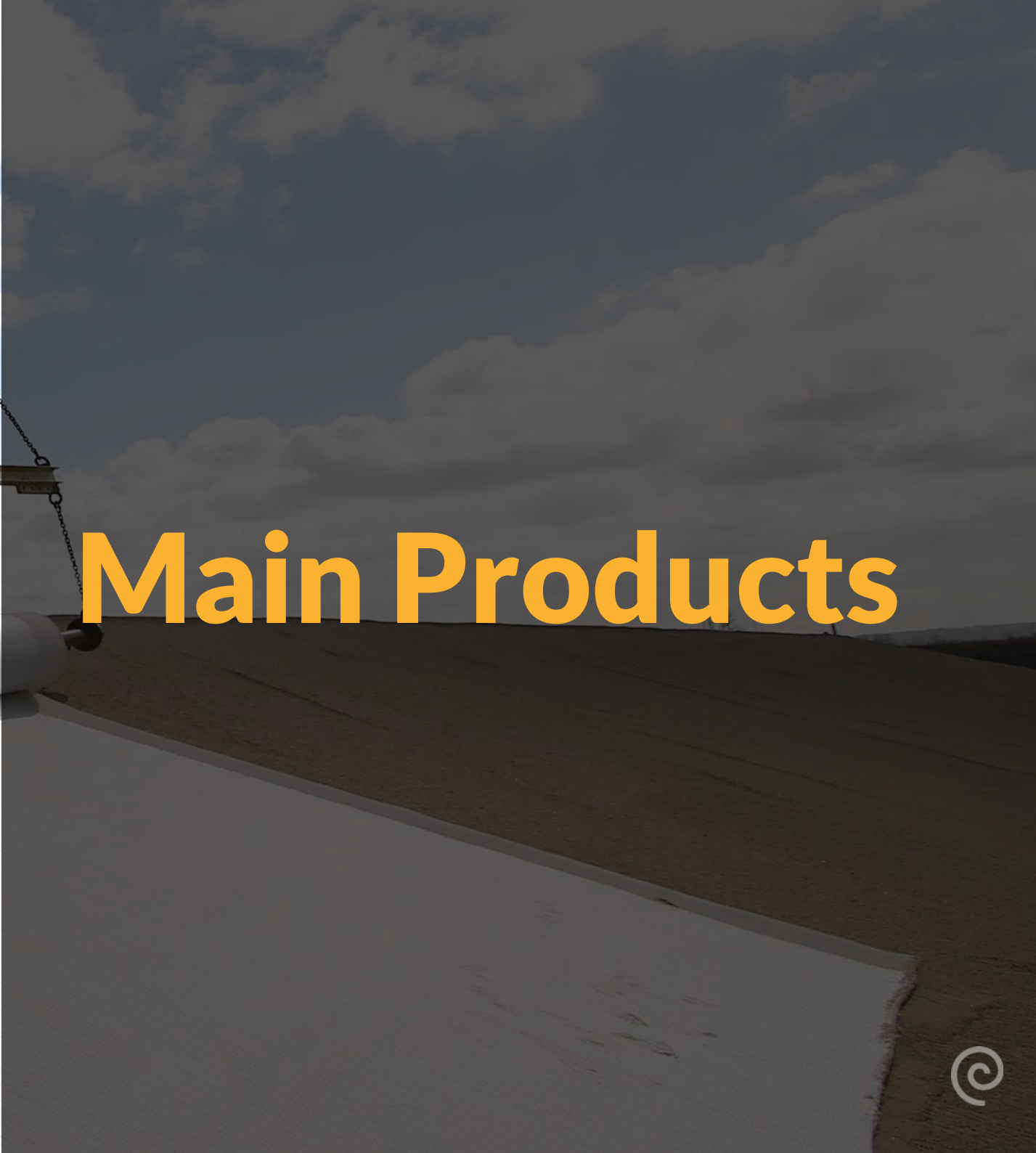




**eurobent**

KEEP ROLLING





# Main Products



# GCL

EUROBENT GCL is an extremely versatile product. It is a combination of two or more layers of geotextiles and bentonite, a clay material with excellent swelling ability. This combination of bentonite, woven and non-woven geotextiles ultimately made it possible to produce a reinforced, strong sealing layer.

EUROBENT GCL ensures a reliable barrier to liquids, steam, and gases. It provides the highest standards of security and profitability. The excellent absorption and swelling properties of bentonite make the GCL impermeable.



## The reasons that you should choose the EUROBENT solution:

- A state-of-the-art natural sealant available on the market.
- Replaces the need to use traditional mineral sealants, especially compacted clay.
- Offers better sealing performance.
- Solution security: Due to the swelling properties of bentonite, it is able to repair itself in the case of small perforations in layers of geosynthetic textiles. The certified quality of our product enhances on-site construction safety.
- The flexibility of solutions: We offer very flexible solutions, each time tailored to the client's needs: our GCL is characterized by a large number of possible widths and lengths while minimizing the number of connections. We offer different bentonite types to meet specific project requirements.
- Minimizing costs: Our bentonite mat provides significant economic benefits. Its low weight decreases transportation costs. The speed and ease of installation do not require highly-qualified personnel, expensive welding or the use of heavy equipment. It is simply unrolled on-site and overlapped at the joints and eco-friendly.
- Ecology: EUROBENT GCL mat is an environmentally friendly product- ISO 14000 certified.

## General Characteristics:

The production technology requires a combination of two separate synthetic fabrics that detach the bentonite layer. The final effect is obtained by putting the loose bentonite granules between the PP non-woven layer and the PP woven layer. Carrier layer may be also composed of non-woven, a composite of two non-wovens or a combination of woven and non-woven geotextile. Strong connection of all layers is given by a special method of joining, called needle punching. It involves pulling the fibres from non-woven layer through bentonite layer and fixing them on the outer surface of woven layer. Thanks to this process all layers are properly combined and remain flexible.



## Application:

Over 10 years of EUROBENT GCL's presence on the market shows that its use is practically unlimited. Here are some of the possible applications for EUROBENT GCL:

- Canals and storage reservoirs
- Tank storage sites
- Composting plants
- Biotopes
- Tunnel and building seals
- Filtering and storage reservoirs
- Run-off basins
- Roads on environmentally sensitive areas
- Landfill base
- Landfill capping
- Structural waterproofing



# GCL C

EUROBENT C is an effective bentonite waterproofing mat dedicated to structural waterproofing. It has enhanced mechanical properties thanks to use of stronger geotextiles in a manufacturing process.

A remarkable, safe, and natural alternative that can be used for the conventional sealing of buildings.



## The reasons that you should choose the EUROBENT C solution:

- An excellent, active waterproofing of underground structures and underground parts of buildings.
- The primary advantage of EUROBENT C is its extraordinary ease of installation. The mat can be applied to dry and wet surfaces in various weather conditions. On vertical surfaces, EUROBENT C can be nailed directly to the concrete.
- It requires no additional fixing on horizontal surfaces.
- No prepared floor surface required underneath.
- It does not require the usage of any protective layers.

## General Characteristics:

EUROBENT C is designed in a way that protects it from mechanical damage that appears at every construction site. Stronger geotextiles used in the manufacturing process make the product durable and robust.

Once the EUROBENT C production has been approved, a sample of each roll is tested in our laboratory to the following standards:

- Thickness ISO 9863-1/9863-2
- Mass per Unit Area ASTM D 5993
- Moisture Content ASTM D 4643-08
- Tensile Strength and Elongation at Break ISO 10319
- Puncture Resistance (CBR) ISO 12236
- Peel Strength ISO 13426-2
- Permeability ASTM D 5887



## Application:

This bentonite mat serves as an insulation of:

- Horizontal foundation
- Vertical walls
- Bottom plate insulation
- Other building structures



# GCL CS

In comparison to traditional mats, EUROBENT GCL CS has an additional layer of membrane: HDPE, LLDPE or PVC. It is dedicated mainly to a construction waterproofing market.

This solution creates one durable barrier that offers double sealing. In case of any perforation in the film, bentonite serves as a secondary sealing barrier. Moreover, thanks to its self-healing properties it can seal the perforation and stop the leakage.



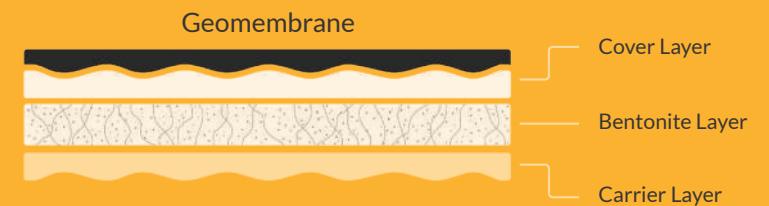


## The reasons that you should choose the EUROBENT CS solution:

- Even greater strength and safety.
- The self-sealing quality of the bentonite layer is the distinguishing feature of EUROBENT GCL CS from other bentonite mats.
- Thanks to this, the integrity of the product is not affected, even in the event of damage.
- The swelling property of bentonite is the proper performance guarantee in case of damage to the film, which is the basic sealing layer of the CS product.
- The outer layers consisting of the highest quality geosynthetic guarantees safety and high resistance to damage.

## General Characteristics:

The technically designed needling process guarantees greater internal and external strength of the mat and extends the range of possible applications of bentonite mats. An innovation in the production process of EUROBENT GCL CS is the gluing stage. The membrane thickness can have a range of 0.2 mm - 2.5 mm.



## Application:

The greater strength of EUROBENT GCL CS mats makes it possible to use them for very demanding applications, including:

- Flat roofs
- Concrete piles and sheet piling
- Foundation and other subsurface structure
- Cut-and-cover tunnel construction
- Tunnel (inner lining)



# GCL QS

EUROBENT Quick Seal is a modern solution for the most demanding projects. The Quick Seal bentonite lining product is our answer to the real needs of customers.

It is used in projects where quick swelling and water absorption are essential, and when the traditional geosynthetic barrier is insufficient. It provides immediate sealing performance thanks to a polymer modified cover layer.



## The reasons that you should choose the EUROBENT QS solution:

- EUROBENT QS can quickly absorb and retain large amounts of water and leachates. Much higher protection against water leaks.
- It guarantees quick swelling of the raw material and immediate water absorption. The polymerized geotextile absorbs and retains water by gelling.
- The swollen gel particles retain water, solutions and leachates, preventing the leakage.
- Especially designed by the best specialists in the industry, EUROBENT QS technology provides double protection against water leaks.
- The bentonite layer acts as an additional, natural barrier for liquids and gases, and, as such, EUROBENT QS is an extraordinarily hermetic product that is completely impermeable.
- Less weight, while maintaining the same or higher absorption parameters. Even lighter bentonite mat!
- Limiting the costs of transport and installation compared to the traditional bentonite mats.
- Easier installation in more demanding environments due to less product weight.

## General Characteristics:

Our Quick Seal Lining system is a composite of a polymer-modified geotextile, a bentonite core, and a geotextile fabric secured with needle punching. This solution produces a technologically advanced waterproof layer with excellent protection against moisture.

Uniquely designed swelling non-woven geosynthetic textile has been included in the production process. Thus, the amount of bentonite used has decreased significantly. As a result, we have received the product lighter than traditional bentonite mats while still retaining the same level of water permeability properties. The reduced weight means also easier, less time-consuming, cheaper, and lower transport costs.



## Application:

Thanks to its unique features, EUROBENT QS is particularly suitable for the insulation of:

- Tunnels
- Basements
- Underground garages
- Flat roofs
- Vertical and horizontal underground isolation of buildings
- All other object



# SandMat

SandMat consists of a non-woven geotextile layers and a quartz sand embedded inside. It can be used successfully in scour protection, filtration and drainage.

It was designed especially for the protection of waterways and marine environments. SandMat is an excellent alternative to classic materials such as gravel.



## The reasons that you should choose the SANDMAT solution:

### — A revolutionary and rapid assembly process

When applying SandMat, the application of sand or gravel filter layers and the involvement of a large crew becomes unnecessary, which greatly facilitates the implementation and reduces the investment costs. Due to the use of a layer of sand in SandMat, the installation can be carried out successfully both in dry conditions, as well as underwater or from watercraft. SandMat is produced in wide rolls reaching up to 5.1 m, thanks to which assembly time and the necessary number of overlaps are reduced to a minimum.

### — Environmentally friendly

SandMat is an environmentally friendly product and an ideal solution for use in waterways where high filtration efficiency, revetment stability, and abrasion resistance due to wave action is required. Financial and ecological savings are achieved as EUROBENT SandMat removes the need to transport large quantities of natural soils or aggregates. Our product has a high water permeability, which allows the growth of vegetation and improves the ecological aspects of using the mat.

### — Flexible solutions in response to the customers' needs

On special request, it is possible to produce rolls of individual dimensions. Besides, the roll packaging was designed and made by our specialists to minimize the risk of product damage. The packaging of rolls with UV resistant sleeves prevents product degradation caused by atmospheric factors and facilitates transport and storage of the product on site.

## General Characteristics:

SandMat consists of a layer of nonwoven geosynthetic textile, quartz sand, and a geosynthetic composite mechanically connected as a result of a technically designed needling process. Innovative technology ensures high product durability and resistance to damage.



## Application:

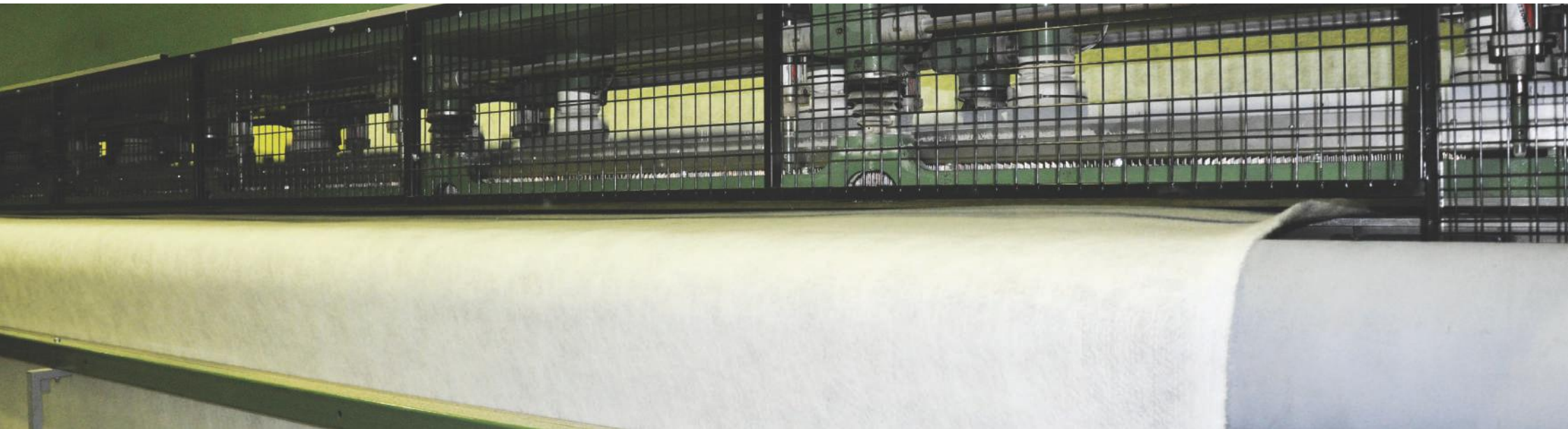
Due to its robust construction and inherent strength, sandmat is ideal for the construction of:

- Revetments, where the long-term stability of the cover layer is required
- Coastal locations, such as seawalls, breakers, groins, dikes, and embankments



# Individual Design

One of our biggest asset is our quick response to market needs and our constant search for new challenges. We do not only produce our standards and products according to specifications. Our pride is the ability to create solutions to problems presented by the customers.



We are always open to new ideas and ready for trying to meet market expectations. We are proud of designing products for only one project where none of available market products was effective enough to solve the problem.

Apart from needle-punching we have also a gluing line where we can combine e.g. nonwovens with membranes or drainage composites. We can also combine two processes needle-punching and gluing.

On special request we can manufacture products according to specific market demands with constant care of their highest quality.

**Flexible  
solutions**

**All kinds of  
composites**

**Tailored  
products**









# Accessories



# Europaste



Europaste is a bonding and sealing compound made from a combination of bentonite and an anion-active detergent, which acts as an emulsifier. The main feature of Europaste is its high elastic adhesive power.

Due to the chemical composition of bentonite, Europaste can expand by up to 90% of its initial volume when it comes into contact with water.

Europaste is a mixture of sodium bentonite and plasticizing additives. Europaste is used for sealing rods and tie rods passing through bentonite mats, gluing the free edges of bentonite mats, and joining with another type of waterproofing, as well as repairing broken mats and filling voids and gaps.

The basic advantage of this material is the simplicity of its application and a wide range of use.

## Europaste can be used for:

- Gluing the Eurostrip in day-work and dividing gaps.
- Sealing the overlap of EUROBENT bentonite mats and other geotextiles.
- Sealing cables and tubular passes.
- Filling cavities and cracks in the building, engineering, and water structures.
- Europaste eliminates unevenness on bases and ensures optimum contact between concrete surfaces and Eurostrip.

Europaste is non-flammable and non-toxic.

Storage temperature: +1- +30o C

Europaste is available in 25kg container



# Eurostrip



Eurostrip is a specially developed sealing tape used in concrete construction elements to seal work joints, pipe culverts, and other construction technological breaks that are constantly or periodically exposed to pressure and surface water.

The tape is made of bentonite, a natural clay mineral. The special fillers and additives are binding agents.

## Features:

- High swelling capacity.
- Self-initiating action–penetrates into all crevices and voids.
- The material does not age – it swells even after decades.
- Quick and easy assembly.

The product replaces traditional sealing systems, e.g. PVC tapes. The contact with water causes the tape to activate and increase its volume. The swelling tape puts pressure on the weld and seals it. Besides, swelling bentonite penetrates deeply into small cracks and shrinkage cracks. The swelling and shrinking process are reversible, which allows the tape to be used where contact with water occurs periodically.

## Eurostrip can be used to seal:

- Expansion joints between concrete slabs and vertical walls.
- Expansion joints in-between two materials, e.g. concrete to concrete, stone to concrete or steel to concrete.
- Heading joints between steel pipes and concrete bodies such as use in swimming pools, settling tanks, sumps, etc.
- Joints in tunnels, dams and waterworks, including tanks used for drinking water.

## Assembly:

The bentonite tape is laid in the middle of the working gap inside the reinforcement. Very uneven substrates should be smoothed, e.g. with levelling compound. When laying, keep the cover between the edges of min. 8cm on each side.

Do not overlap—cut the ends at the joint. Then place the mounting grid on the tape and fasten with steel pins or nails every 25 cm. Adhesive fixing is also possible.

Once Eurostrip has been laid, the concrete can be laid immediately. The minimum thickness of concrete to be used with Eurostrip is 7cm.



# Eurorail

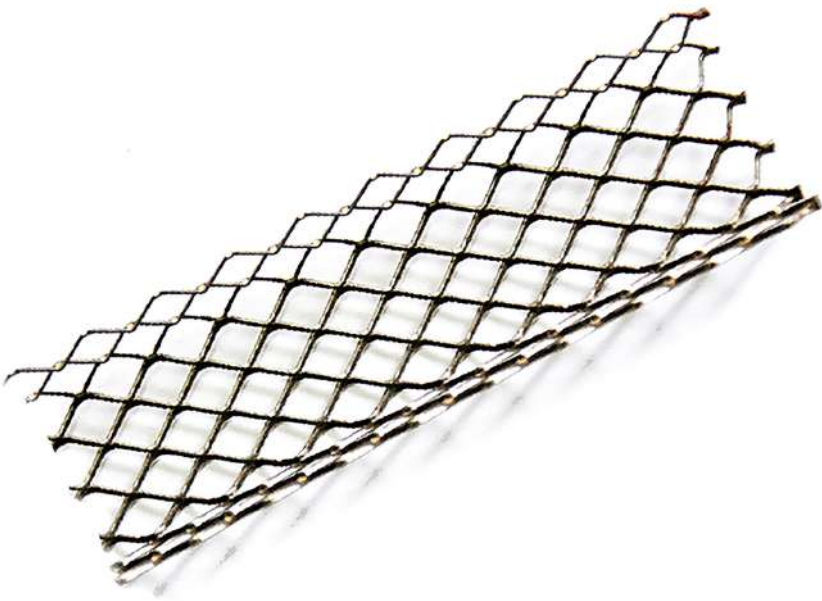
A galvanized wire grid specifically designed to prevent the displacement of Eurostrip during the concrete pouring process.

## Features:

- It is used on the construction sites and prevents displacement during concreting.
- The mesh can be easily cut, shaped, and combined.
- Despite its very high strength, it is relatively light.

Eurorail is a reinforced welded mesh, made in double galvanization technology. First, it is made of galvanized wire, then welded, and finally fully galvanized.

This product has been designed especially to prevent Eurostrip displacement during concrete pouring.



# Bentonite



The EUROBENT GCL bentonite replaces the need for traditional mineral sealants thanks to its versatility.

## Features:

- It offers amazing sealing performance.
- It's cost-effective and eco-friendly.
- Its small mass minimizes the cost of transportation.
- It is quick and easy to use.

Eurobent offers the bentonite in 20 kg bags to make an overlapping on site. For other applications there is wide range of bentonite types available in Big Bags (1000kg).





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