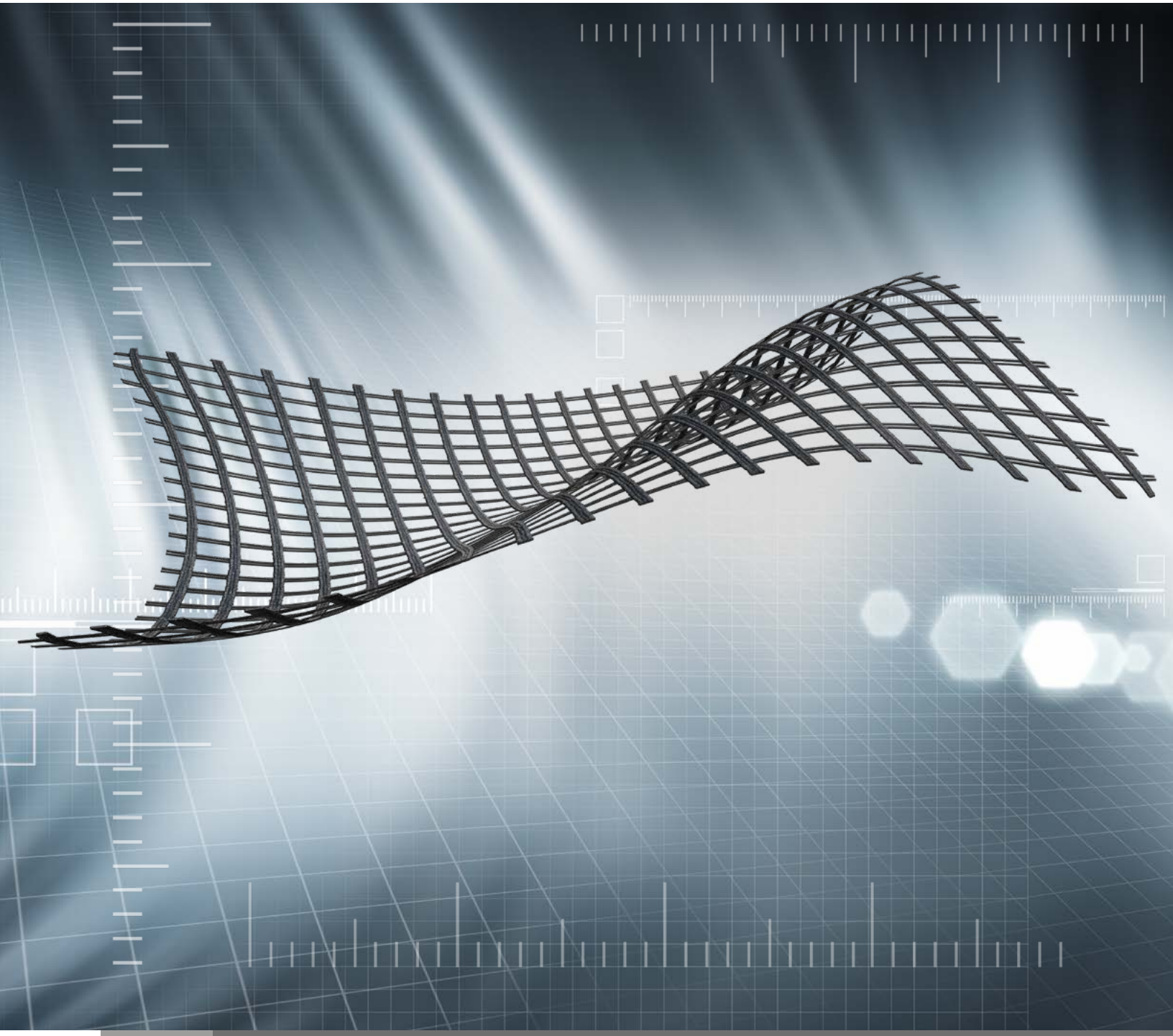

Discover the World of Geosynthetics

Product Overview

HUESKER
Ideas. Engineers. Innovations.

Discover our Geosynthetic solutions

Products and Applications

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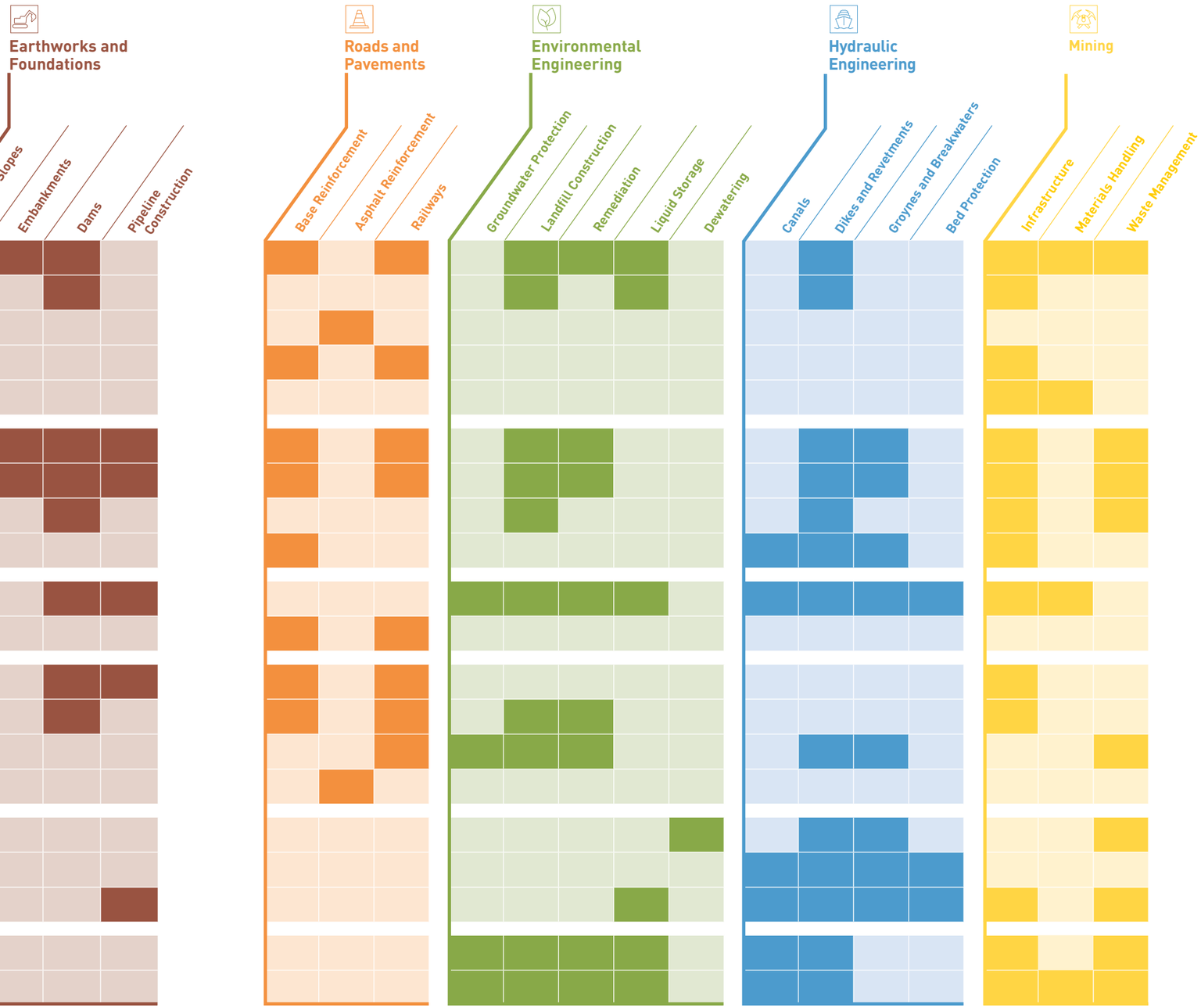


eco LINE available in 100 % recycled PET

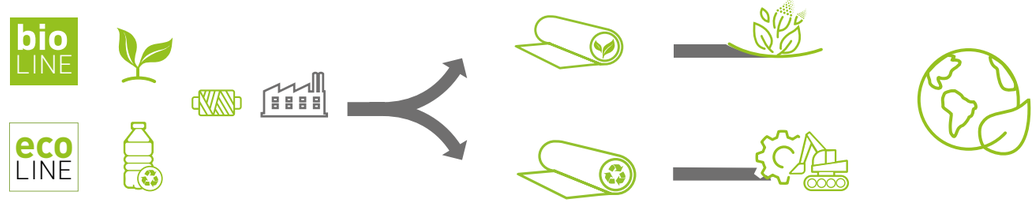
bio LINE based on natural raw materials

Environmentally conscious products for our world

ecoLine and **bio**Line - products made from recycled and natural raw materials

Future-proof and sustainable: our innovative products

Our planet's natural resources are precious - which is why we develop solutions that bring about sustainable change. With our ecoLine and bioLine product lines, we promote responsible construction through the use of innovative geotextiles. The ecoLine relies on robust and durable reinforcement systems made from recycled PET, while the bioLine offers geotextiles made from renewable raw materials for temporary applications. Together, we create environmentally friendly and resource-saving construction projects that make a positive impact.



Geotextiles made from recycled raw material

Less CO_2 emissions
by not using
primary raw materials

Conservation of resources
through the use of
recycled PET bottles

PET recycled yarns
with proven
original fiber quality

All ecoLine products are
CE certified

100 % original fiber quality made from 100 % recycled PET

With **eco**Line, we are the first manufacturer in the world to offer high-quality reinforcement solutions made from recycled PET with CE marking. This innovation promotes the circular economy and sustainable construction. The ecoLine product solutions are characterized by their high quality and have the same performance characteristics as the original products. The recycled yarns we use have demonstrated original fiber quality, comparable to that of virgin materials. Sustainability and durability are perfectly combined.

Geotextiles made from renewable raw materials

Based on
natural raw materials

Biodegradable
products

Robust for temporary
applications

Natural raw materials for temporary applications

bioLine stands for bio-based, biodegradable technical textiles for temporary applications. With SoilTain® DW bio, HUESKER is a pioneer in offering fully degradable dewatering products. The products meet all technical requirements and are highly efficient: after use, nature takes over the recycling process, often making dismantling unnecessary.

BENEFITS

- Strengths up to 205,000 lbf/ft with mesh openings up to 4 inches
- High tensile stiffness and low creep
- Lower space requirement through extra-steep construction
- Uniform high tensile stiffness, even at intersections
- Less excavation and lower construction costs

Fortrac®

Immensely versatile solution for reinforced soil

Fortrac offers a comprehensive solution for soil reinforcement.
Four different raw materials support a remarkably wide range of applications while meeting the most stringent project requirements. The extremely high tensile stiffness, combined with the low creep propensity of Fortrac, allows for the efficient protection of areas prone to subsidence — even under stringent requirements.

The high level of performance achieved by Fortrac helps reduce costs: its high design tensile stiffness allows for the economical use of lower strength values. Thanks to the alkali resistance of the raw material, Fortrac geogrids made of PVA are particularly economical to install, as local soils can be used — even in cases of extreme pH values or when hydraulic binders like cement or lime are present. In many cases — such as embankment foundations—the product's reinforcing performance can reduce the need for costly excavation work or enable extra-steep construction with a smaller footprint.

The manufacturing process of Fortrac geogrids eliminates the risk of structural molecular changes that could create weak points—especially at the intersections. Fortrac geogrids are certified to key international assessment standards, and HUESKER provides extensive quality testing and verification data to validate the product's reliability.

Approvals: BAM, HPQ der DB AG, GfG Gütegemeinschaft Gabionen, BBA, NorGeoSpec, NTPER

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eco LINE

Material	Tensile strength(s)	Coating(s)	Function
PET, rPET, PVA, Aramid	Up to 205,000 lbf/ft	Polymer	Reinforcement

Bridging of Sinkholes

Steep Slopes/Retaining Structures

Steep Slopes/Retaining Structures

Now also available as BIM models

Click here for the BIM portal!

Fortrac® Systems

Efficient solutions for steep slopes and retaining structures

Fortrac reinforced earth systems enable the rapid, cost-effective, and environmentally sustainable construction of settlement-resistant steep slopes, slope and embankment stabilization, as well as retaining structures such as retaining walls and bridge abutments. Fortrac Systems offer modular and economical solutions for engineering structures using geogrids.

Fortrac® Nature | Fortrac® Gabion | Fortrac® Block | Fortrac® Panel

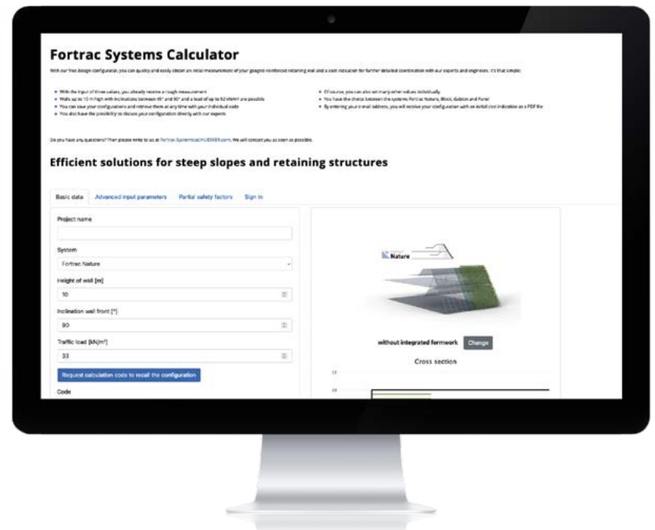
Fortrac Systems Calculator

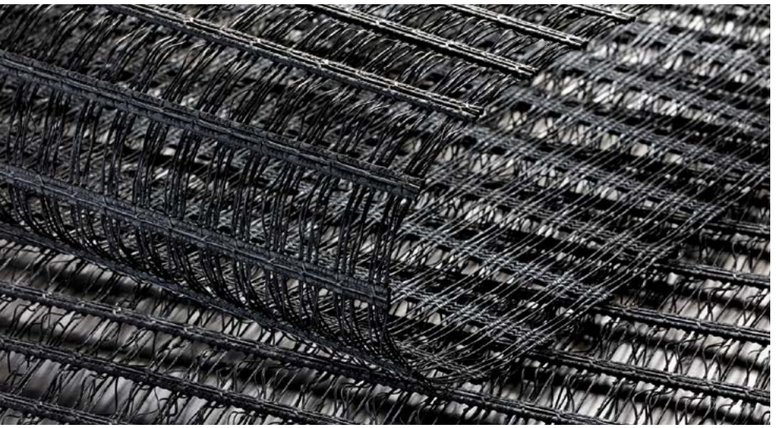
Calculate geogrid-reinforced retaining walls quickly and easily

With our free design configurator, you can quickly and easily generate an initial layout for your geogrid-reinforced retaining wall — along with a cost estimate to support further coordination with our engineers and technical experts.

On page 31 you will find direct access to the free Fortrac Systems Calculator.

Click here to go to our videos!





BENEFITS

- Integrated Reinforcement and Erosion Control
- 3D structure for improved erosion resistance
- Firm rooting for rapid vegetation growth
- Allows steeper construction
- Straightforward installation with no "memory effect"

Fortrac® 3D

Slope stabilization made easy

Fortrac 3D — a reinforcement grid with a three-dimensional structure — offers an exceptional combination of reinforcement and erosion control, while also promoting vegetation growth on steep slopes. Optional vegetation planting results in natural-looking, visually appealing structures.

Fortrac 3D is made from a flexible material that allows for quick and easy installation, with no "memory effect" (i.e., it doesn't curl back up after unrolling). The product's durability is further enhanced by a polymer coating that protects against UV radiation and installation damage.

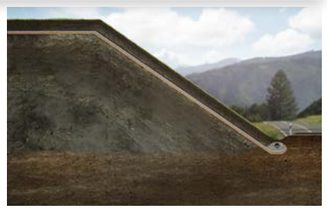
Fortrac 3D provides reliable anti-slip reinforcement and effective erosion control.

Click here to go to our videos!

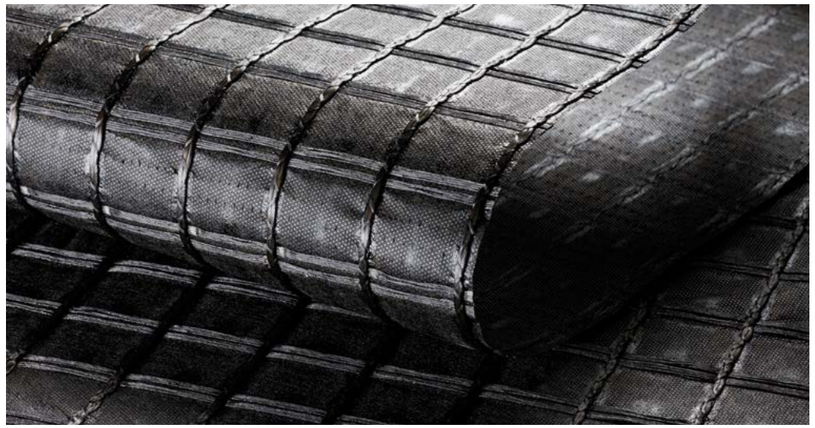
Material	Tensile strength(s)	Coating(s)	Functions
PET, PVA	Up to 20,500 lbf/ft	Polymer	Reinforcement, Protection, Erosion control

Dams and Dikes

Landfill Construction



Landscape Construction



BENEFITS

- Up to fourfold increase in maintenance intervals
- Straightforward, cost-effective installation
- Excellent bond with asphalt layer thanks to bitumen coating
- Roll widths up to 16 ft to match required size
- Flexible, robust material

HaTelit®

The benchmark in asphalt reinforcement

HaTelit asphalt reinforcement is HUESKER's durable and cost-effective solution for rehabilitating asphalt pavements. The reinforcement grid's flexibility and strength not only allow installation on milled surfaces but also extend the service life of asphalt pavements — even under heavy loads.

The bituminous coating ensures optimal bonding between the biaxial reinforcement and the asphalt layer. Stress concentrations are reduced, effectively delaying the onset of reflective cracking.

One major advantage: HaTelit and asphalt share similar thermal expansion properties — minimizing stress and improving long-term performance. This minimizes internal stresses, allowing the geogrid to integrate seamlessly into the asphalt layer. The ultra-thin nonwoven backing simplifies installation, while custom roll widths help accelerate the process and reduce costs.

HaTelit offers a long-standing record of proven quality and reliability. HaTelit C is also available in the environmentally friendly ecoLine version. HaTelit eco is made from high-quality recycled PET and offers the same technical performance as the original product.

HaTelit BL builds on the proven advantages of HaTelit and is specifically designed for rehabilitating small asphalt and concrete pavement areas. The integrated self-adhesive bitumen sheet enables quick and straightforward asphalt refurbishment.

Approvals: RAL quality mark, EPD

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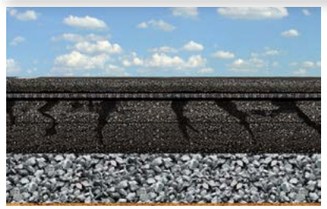
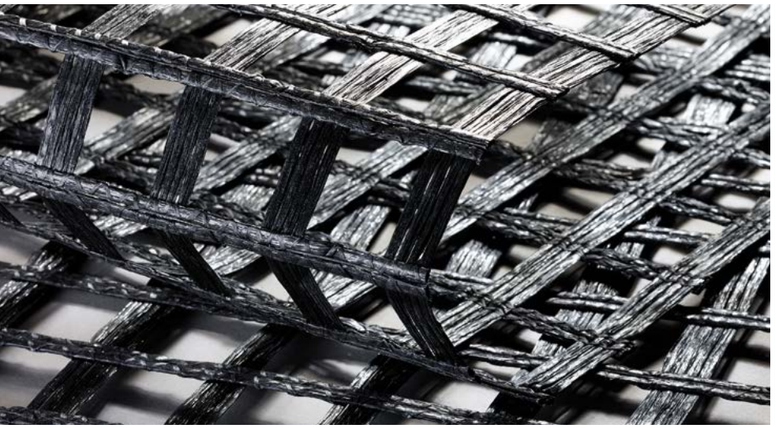
Material	Tensile strength(s)	Coating(s)	Function
PET, rPET, PVA, Glass	Biaxial up to 6,850 lbf/ft	Bituminous	Reinforcement



Rehabilitation of Asphalt Pavements

Permanent Roads and Pavements

Rehabilitation of Concrete Pavements with Asphalt



BENEFITS

- Increased bearing capacity in all soil conditions
- Cost savings due to lower base material requirement
- Straightforward installation with no "memory effect"
- Project-specific product selection up to 5500 lbf/ft biaxial
- Efficient mobilization of forces

Basetrac® Grid

Base reinforcement suitable for all soil conditions

Basetrac Grid is the standard product for base reinforcement applications, available in two raw materials. The alkali resistance of the polypropylene material allows its use even in cement-stabilized soils. The flexible material exhibits no memory effect (i.e., it shows no tendency to roll up after laying), allowing much faster and easier installation than similar products.

The high interaction flexibility enables good interaction between the soil and the reinforcement grid. Cost savings can be achieved through project-specific selection of the required strength (1,400–5,500 lbf/ft). The high-tensile geogrid, polymer-coated to protect against UV radiation and installation damage, provides reliable long-term reinforcement for base courses.

Basetrac Grid has been shown to reduce the quantity of base material needed compared to unreinforced constructions. This makes Basetrac Grid the safe, long-term solution for base course reinforcement. As a result, transport is minimized, leading to a lower CO_2 footprint on the construction project and reduced microplastic production.

Approvals: HPQ of DB AG, NorGeoSpec

On page 31, you will find direct access to the free BaseCalculator. With the BaseCalculator, you can easily find the right product for your application.

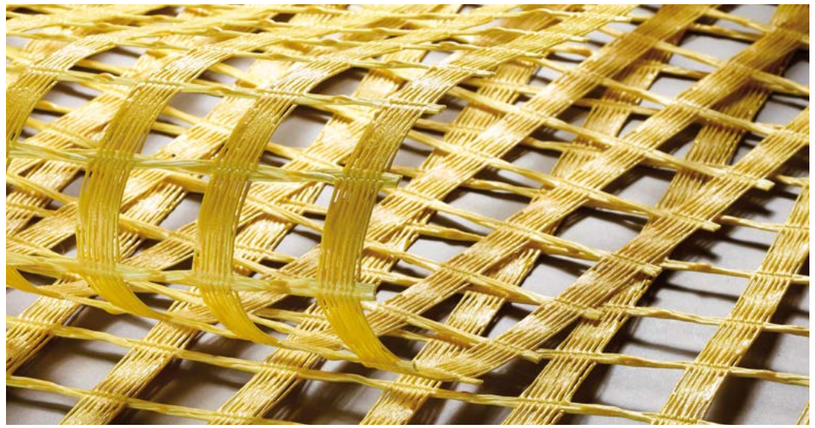
Click here to go to our videos!

Material	Tensile strength(s)	Coating(s)	Function
PP, PET, rPET, PVA	Biaxial up to 5500 lbf/ft	Polymer	Reinforcement

Temporary and Permanent Roads

Railways

Working Platforms



BENEFITS

- Safe, long-term support with negligible deformation
- Long service life in all areas of a mine or quarry
- FRAS rating meets all requirements of the Mine Safety and Health Administration (MSHA)
- High-visibility coating

Minegrid®

The original Minegrid – reliable, safe and sustainable

For more than 20 years, Minegrid has been used to recover longwalls, support ribs, and reinforce highwalls in mines and quarries around the world. Minegrid has proven itself in the most extreme conditions and has long been the industry standard for quality.

Minegrid is manufactured and woven under tension from high-tenacity synthetic materials such as polyester (PET) and polyvinyl alcohol (PVA). Our highly sophisticated Minegrid is coated with a flame-resistant, anti-static layer that meets all requirements of the Mine Safety and Health Administration. Minegrid has an unequaled safety record, and mines and quarries rely on it to enhance safety, production, and profitability in their operations. Standard tensile strengths range from 2,400 lbf/ft to 70,000 lbf/ft; however, HUESKER is capable of manufacturing tensile support solutions that go well beyond this.

Material	Tensile strength(s)	Coating(s)	Functions
PET, rPET, PVA	Up to 70,000 lbf/ft standard	Flame-resistant, anti-static	Reinforcement, Protection

Longwall Recovery, Highwall and Rib Support

BENEFITS

- High strengths of up to 171,000 lbf/ft for unique applications
- Single product combining three functions: reinforcement, separation, and filtration
- World-famous brand with a track record of over 50 years
- The only woven geotextile with BBA certification
- Suitable for use in large panels

Stabilenka®

Globally unique woven reinforcement fabric

With uniaxial strengths of up to 171,000 lbf/ft and biaxial strengths up to 69,000 lbf/ft, Stabilenka is the world's strongest woven reinforcement fabric (second only to Stabilenka Xtreme). Its impeccable track record has earned it a global reputation. Not surprisingly, it is the only woven product on the market with BBA certification for supreme quality and reliability.

This is achieved through HUESKER's state-of-the-art manufacturing process, with moduli exceeding 1,712,000 lbf/ft and a strict quality assurance regime. Numerous certifications and proven resistance — up to 120 years — to chemical, physical, and microbiological action have made Stabilenka one of the best-performing woven reinforcement products in the world.

Stabilenka meets even the most challenging project requirements. Individual sheets can, for example, be stitched together into large panels—such as those used for sludge lagoon capping or underwater installation. The constituent raw material offers high tensile stiffness coupled with low creep, with uniformly high tensile strength helping to minimize structural deformation.

Approvals: BBA, IVG, NORGeoSpec, EPD, NTPEP

eco LINE

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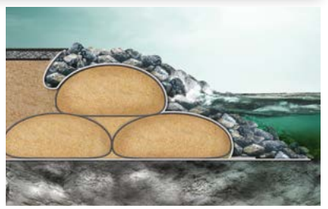
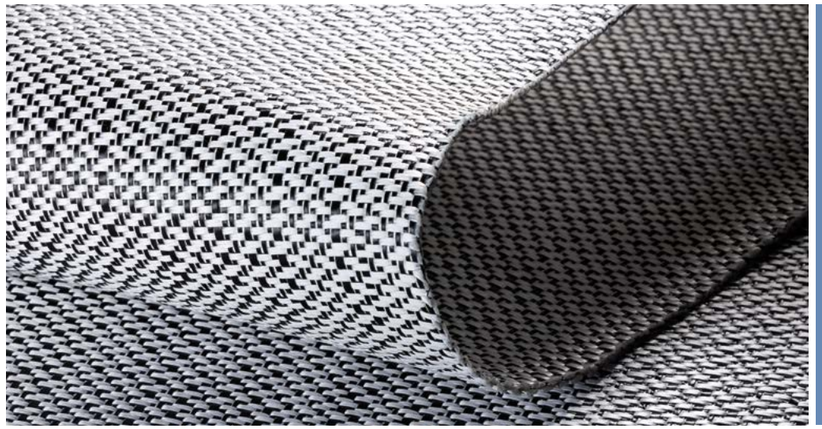
Material	Tensile strength(s)	Functions
PET, rPET	Uniaxial up to 171,000 lbf/ft; biaxial up to 69,000 lbf/ft	Reinforcement, Separation, Filtration

Embankments on Soft Soil

Geotextile Encased Columns



Land Reclamation



BENEFITS

- High strengths of up to 191,700 lbf/ft for extreme applications
- High tensile stiffness combined with low creep
- High durability in soils with pH values from 2 to 12.5
- Woven fabric sheet for reinforcement, separation, and filtration

Stabilenka® Xtreme

Highest strength, even under alkaline conditions

Stabilenka Xtreme consists of PVA and is resistant to acids and alkalis at pH values between 2 and 12.5, allowing use with all soil types — including peat. Stabilenka Xtreme is manufactured from special multifilament yarn, enabling moduli exceeding 3,082,000 lbf/ft. The high-modulus material provides enhanced axial stiffness combined with extremely low creep. The immediate load take-up guarantees minimal structural deformation, offering maximum reliability for your projects.

Stabilenka Xtreme offers tensile strengths of up to 191,700 lbf/ft uniaxial and 96,000 lbf/ft biaxial, catering to extreme applications. Moreover, in many cases, cost savings can be achieved by specifying a single layer of Stabilenka Xtreme reinforcement rather than a multi-layer solution.

The product combines three functions in one: reinforcement, separation, and filtration.
By virtue of its strong and versatile performance, Stabilenka Xtreme leads its class.

Stabilenka Xtreme, the last word in reinforcement.

Click here to go to our videos!

Material	Tensile strength(s)	Functions
PVA, PP	Uniaxial up to 191,700 lbf/ft; biaxial up to 96,000 lbf/ft.	Reinforcement, Separation, Filtration

Embankments on Soft Soil

Sludge Lagoon Remediation

Bridging of Sinkholes

BENEFITS

- Cylindrical seamless reinforcement sleeve providing uniform tensile strength and axial stiffness
- Robust foundations, even in extremely soft or liquefied soils and earthquake-prone regions
- Megadrain function enables rapid soil consolidation
- Cost savings through project-specific product selection

Ringtrac®

Reliable ground improvement for weak soils

Ringtrac is the key component of an innovative foundation system suitable for a wide range of soil conditions. Combining high tensile strength and axial stiffness, the seamless cylindrical reinforcement sleeve creates a clearly defined column regardless of soil conditions — even in extremely soft soils. Ringtrac is commonly used to construct GECs.

Ringtrac columns are ideally suited for embankment foundations in very low bearing soils, land reclamation, and as a safe foundation system in earthquake-prone areas — where the flexible material enhances the ductility of the sand columns. Ringtrac is available in a range of strengths, raw materials, and diameters (22.5 in – 37.5 in) to meet your project-specific requirements and budget. The column length is variable (up to at least 100 ft), allowing the construction of very deep column foundations.
By doubling as megadrains, the water-permeable Ringtrac columns ensure rapid soil consolidation.

Ringtrac also serves as a suitable temporary formwork sleeve for installing concrete columns in extremely soft or karst soils. Through HUESKER's technical design service, you also have the option to access expert support from the company's engineers.

Ringtrac offers the perfect all-round solution.

eco LINE

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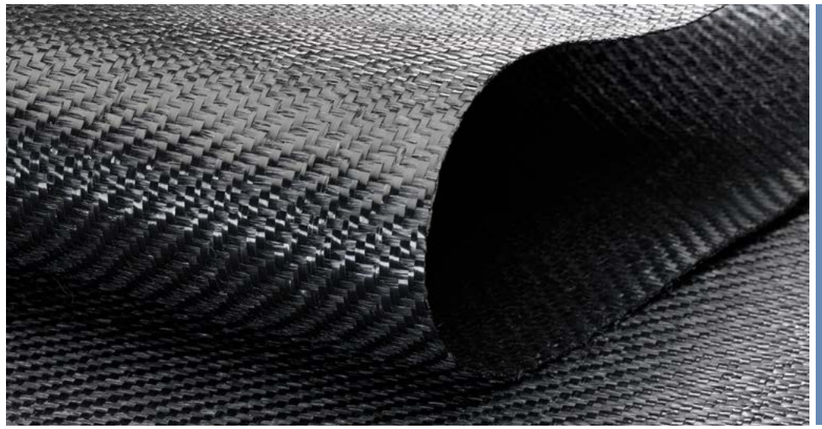
Material	Tensile strength(s)	Functions
PET, PVA	Up to 41,000 lbf/ft	Reinforcement, Separation, Filtration, Drainage (foundation element)

Geotextile Encased Columns (GEC)



BENEFITS

- Increased bearing capacity in all soil conditions
- Straightforward installation with no "memory effect"
- Project-specific product selection up to 6,850 lbf/ft biaxial strength
- Possible use in large panels

Basetrac® Woven

Separation, filtration, and stabilization in a single product

Basetrac Woven is typically used to stabilize surfaces in road and pavement construction. The fine-meshed texture of Basetrac Woven enables it to fulfill separation, filtration, and reinforcement functions. Cost savings can be achieved through project-specific selection of the required biaxial strength (up to 6,850 lbf/ft) and by using large panels to simplify installation over wide areas.

Often specified as an alternative to nonwovens, Basetrac Woven guarantees reliable application in accordance with the German M Geok E-StB ("Guidance Paper on the Use of Geosynthetics in Earthworks for Roadbuilding Projects"). The alkali resistance of the constituent material allows its use in cement-stabilized soils.

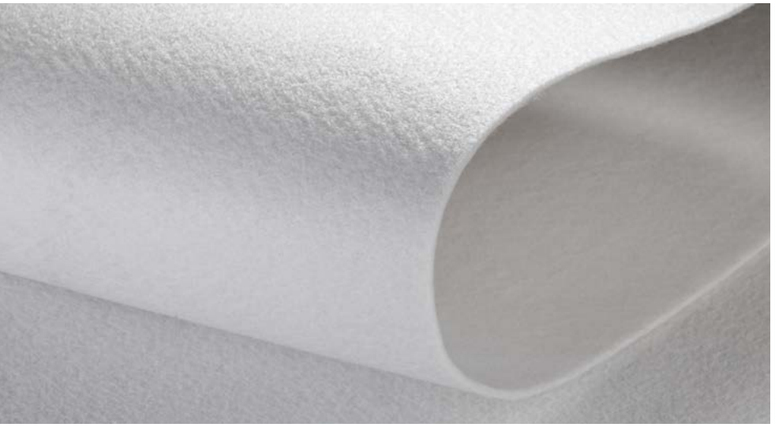
Basetrac Woven products from the bioLine can be used for temporary applications. Our engineers are happy to advise you on options for using degradable raw materials.

Click here to go to our videos!

Material	Tensile strength(s)	Functions
PP, renewable raw material	Biaxial up to 6,850 lbf/ft	Reinforcement, Separation, Filtration, Stabilization

Temporary Roads

Permanent Roads and Pavements



BENEFITS

- Certified quality for a wide range of applications
- No need for mineral filters or protective layers
- A wide range of configurations allows cost-effective product selection
- Long service life
- Fast and straightforward installation

Ultimat®

Separation, filtration, protection, and containment

HUESKER nonwovens serve a wide variety of functions, including separation, filtration, protection, and containment. In addition to the benefits of superior product quality and versatility, customers can choose from a wide range of options to obtain a cost-effective solution tailored to their projects. Products are available in widths from 1.6 to 19.7 feet and weights from 2.9 to 118.5 oz/yd². A variety of raw materials can be specified, with or without woven reinforcement.

Our nonwovens eliminate the need for mineral filters and protective layers. The more compact layer structure may also—for example, in the case of landfill sites — boost the facility's capacity. The possibility of using coarse-grained excavation material with the nonwoven further reduces costs by lowering transportation volumes.

Given that the product is industrially manufactured, constant quality over the full area is guaranteed. The material's flexibility makes it fast and easy to install. When custom-fabricated as sand containers, the product allows the accurate and reliable positioning of fill.

HUESKER nonwovens offer an incredibly versatile solution for diverse applications.

Approvals: BAM, BAW, ÖNORM

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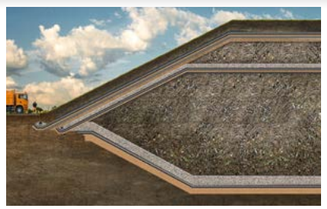
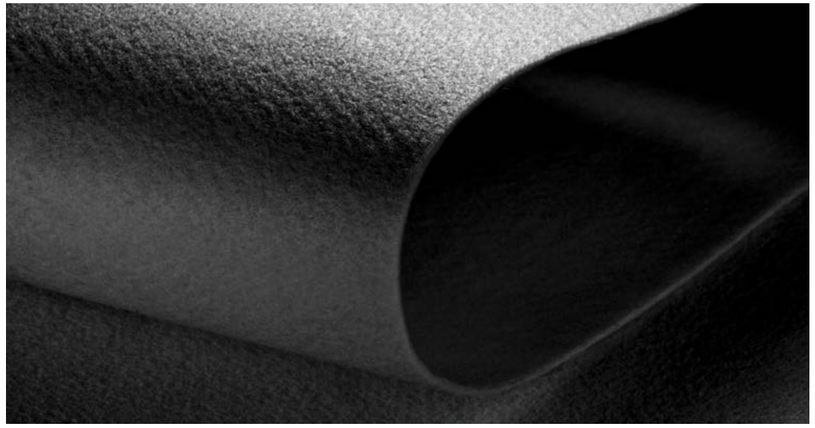
Material	Functions	Weights
PP, PET, PA, PEHD, PAN	Separation, Filtration, Protection	13.1 oz/yd² (optionally with scrim reinforcement)

Revetments



Landfill Construction



BENEFITS

- Increased bearing capacity in all soil conditions
- Straightforward installation with no "memory effect"
- Project-specific product selection up to 6,900 lbf/ft biaxial strength
- Possible use in large panels

Basetrac® Nonwoven

Separation, filtration, and stabilization in a single product

Basetrac Nonwoven serves two functions: separation and filtration. In base course constructions, Basetrac Nonwoven products separate the base course material from the subgrade and prevent the "pumping effect," i.e., the infiltration of fine soil particles into the base course. They prevent the loss of base course material, which might otherwise sink into the subgrade, thereby maintaining the shear strength of the base course. In addition to the benefits of high product quality and versatility, customers can choose from a range of options to obtain a cost-effective solution tailored to their projects. Products are available in widths from 3.3 to 16.4 feet and weights from 2.9 to 10.3 oz/yd², made from different raw materials.

Basetrac Nonwoven products meet all relevant application standards, such as the HPQ for railway engineering (German manufacturer-related product qualification). They are typically specified for soils with adequate bearing capacity (strain modulus EV2 > 5,100 psi) and complement other products in the Basetrac range for base course applications.

Approvals: HPQ of DB AG, IVG

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Material	Functions	Weight
PP, blended fiber	Separation, Filtration	Up to 10.3 oz/yd²

Permanent Roads and Pavements

Temporary Roads

BENEFITS

- Enhanced bearing capacity for very soft soils
- Straightforward installation with no ”memory effect“
- Large selection of products for cost-effective construction
- Lower base layer material requirement
- Structural integrity of the base course is enhanced through excellent interlock of the grid with soil

Basetrac® Duo-C

Ideal for very soft soils

Basetrac Duo-C is the product of choice for base reinforcement on soils with low bearing capacity. The integral nonwoven separates the high-grade base material from the soft subgrade. Moreover, the large range of product types and the flexible material, which is HUESKER's hallmark, allow straightforward, cost-effective installation with no "memory effect".

Basetrac Duo-C is a composite material — geogrid plus nonwoven — that combines reinforcing and separating functions. This reduces the base material depth requirement while offering reinforcement.

The product offers performance quality and reliability in very soft soil conditions.

Click here to go to our videos!

Material	Tensile strength(s)	Coating	Functions
PP, PET, PVA	Biaxial up to 6,850 lbf/ft	Polymer	Reinforcement, Separation, Filtration

Temporary and Permanent Roads

Railways

Working Platforms

BENEFITS

- Specially DB-approved for reinforcement of railway lines
- Enhanced bearing capacity for very soft soils
- Ideal for sludge lagoon remediation
- Customization by stitching sheets into large panels
- A wide range of possible configurations allows cost-effective product selection

Basetrac® Duo

A unique type of reinforcement

Basetrac Duo delivers outstanding reinforcement, particularly suited for specialized applications. Besides its application in road and highway construction, Basetrac Duo is a proven solution for base reinforcement in railway lines.

Basetrac Duo consists of a nonwoven geotextile combined with a reinforcement grid, ensuring excellent interlock with granular layers and preventing the migration of fine soil particles from the underlying soils. Basetrac Duo can be readily stitched into large panels, making it ideal for sludge lagoon remediation, where large panels simplify and speed up the capping process. The separation and filtration properties of the integral nonwoven significantly increase stability, eliminating the need for soil replacement.

Basetrac Duo is truly a reinforcement product in a class of its own.

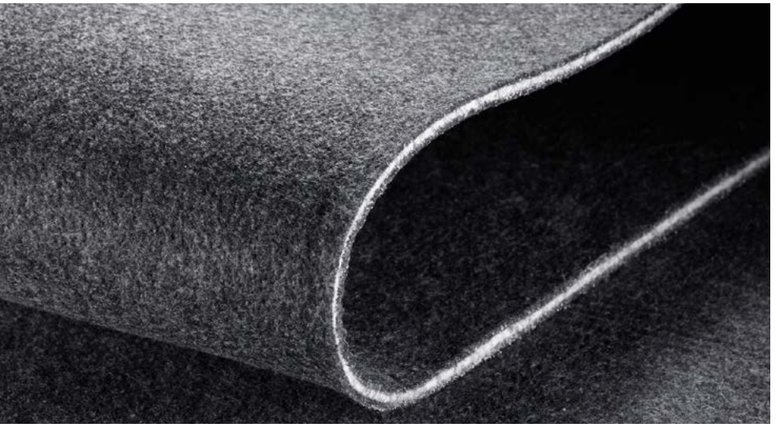
Click here to go to our videos!

Material	Tensile strength(s)	Functions
PVA, PET, PP (nonwoven)	Biaxial up to 6,850 lbf/ft	Reinforcement, Separation, Filtration

Sludge Lagoon Remediation

Railways

Permanent Roads and Pavements



BENEFITS

- **Efficient contaminant absorption at point of infiltration**
- **Straightforward installation and removal on land and in water**
- **Bonding with geotextiles adds mechanical stability to the active granular layer**
- **Stable, constant layer thickness over entire installed area**
- **Tailor-made product solutions designed to address a variety of contamination situations**

Tektoseal® Active

Tailor-made permeable contaminant barriers for nearly every application

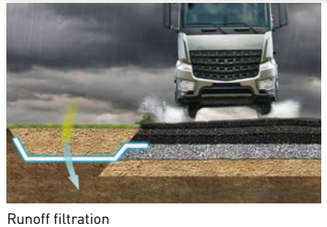
Tektoseal Active is used in environmental engineering for groundwater protection, remediation, covering contaminated sediments, and landfill construction.

The active geocomposites are available in different product versions. The key component in each case is the active material selected to meet your specific challenge. The bond with the geotextile gives the active material mechanical stability, ensuring it remains positionally stable and robust against external influences. Even if the relocation of contaminated material is not an option, Tektoseal Active is a reliable geosynthetic safeguarding solution. Tektoseal Active AS forms a barrier to petrochemical contaminants. A suitable agent for pollutant adsorption is Tektoseal Active AC with a core of activated carbon.

In addition to rolls up to 16.7 feet wide, we also supply large panels precisely tailored to on-site conditions.

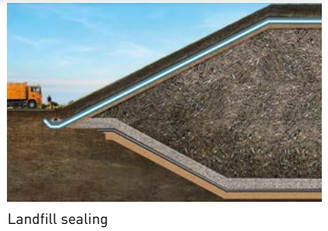
Click here to go to our videos!

Active layer	Top / bottom layer	Function	Containmants
Oil absorbing polymer, different types of activated carbon, Cation adsorber, Selective ion exchangers	Polypropylene (PP) / Polyester (PET) woven or nonwoven	Pollutant absorption through ion exchange or precipitation	Oil, NAPLs, Fuels, VOC, PAH, PCB, TBT, PFAS, Pb, Ni, Mg, As, U, e.g.



Runoff filtration

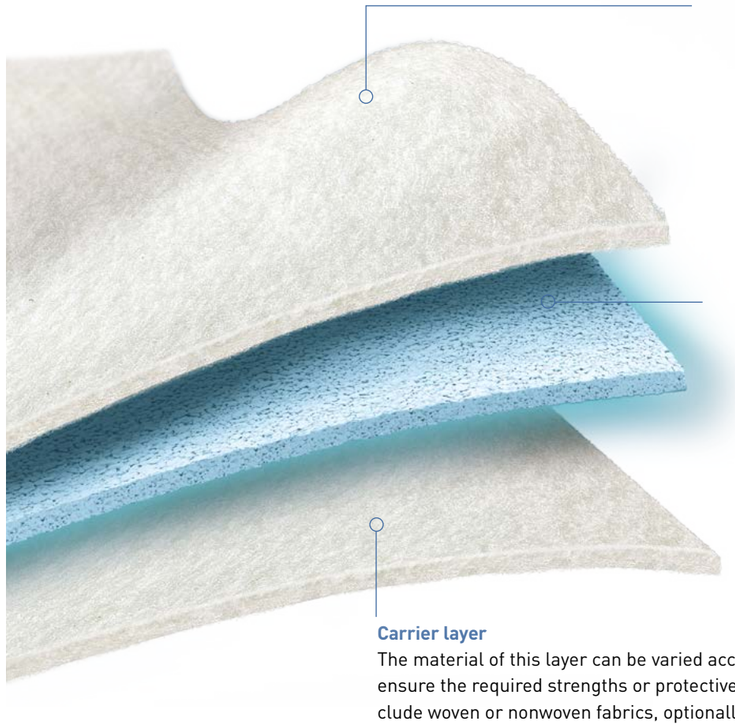
Soil capping



Landfill sealing

Active environmental protection

With tailor-made pollutant barriers



Cover layer
A nonwoven or woven fabric made of polypropylene (PP) or polyester (PET) serves as a stabilizer for the active material and as a protective layer against external influences. Raw material and basis weight are adapted to the specific requirements.

Active layer
The active layer is the heart of the Tektoseal Active products. It may contain the following substances, amongst others:

- Activated carbon
- PFAS selective ion exchanger with carbon
- Heavy metal binder
- Oil absorber

Carrier layer
The material of this layer can be varied according to the field of application to ensure the required strengths or protective properties. Possible materials include woven or nonwoven fabrics, optionally reinforced with geogrids.

For PFAS

Highest performance for short and long chain PFAS

For heavy metals

Maximum performance with heavy metals and phosphates

For organic pollutants

Pollutant barrier for dissolved organic contaminants

For oils and petrochemicals

Preventive protection against contamination of oil, diesel and gasoline

BENEFITS

- Ideal for rehabilitation with asphalt overlay of:
  -Concrete pavements
  -Roads subject to height restrictions
  -Concrete surfaces damaged by alkali-silica reaction (ASR)
- Combines stress relief with sealing and reinforcement
- Up to threefold increase in maintenance intervals

SamiGrid®

For rehabilitation of concrete pavements with asphalt

SamiGrid adds to the benefits already offered by the time-tested HaTelit brand. With polyvinyl alcohol (PVA) as its constituent material, SamiGrid is resistant to alkaline environments. As it can be laid directly onto concrete, it is perfectly suited for the rehabilitation of concrete pavements using an asphalt overlay.

The bitumen coating of the reinforcement grid ensures a strong bond with the asphalt. Saturation of the nonwoven with bitumen after installation enables SamiGrid to fulfill sealing and stress-relieving functions, making it ideal for asphalt overlay applications on concrete surfaces damaged by alkali-silica reaction (ASR).

SamiGrid eliminates the need for an asphalt regulating course, offering an excellent solution for concrete roads. Depending on the climate, the combination of nonwoven and PVA grid provides stress relief or reinforcement due to thermal expansion and contraction.

SamiGrid is an unbeatable choice for the rehabilitation of concrete pavements with asphalt.

Click here to go to our videos!

Material	Tensile strength(s)	Coating(s)	Functions
PVA	Biaxial 3,425 lbf/ft	Bituminous	Reinforcement, Sealing, Stress-Relieving

Rehabilitation of Concrete Pavements

Permanent Roads and Pavements

BENEFITS

- High process capacity for dewatering
- Large-format tubes speed up progress on site
- Cost savings for sludge disposal
- Tubes are also suitable for permanent containment
- Enhanced stability thanks to high-tensile material

SoilTain® Dewatering

Efficient sludge dewatering

SoilTain tubes offer a fast and economical means of sludge dewatering. This helps speed up progress on site.

The tubes, made of purpose-developed, high-performance woven filter material, can be stacked to increase storage capacity. Cost savings are also achieved through reduced machinery requirements for dewatering and sludge transportation from the site. The tubes can even be used for permanent containment of the consolidated sludge. There is no risk of rewetting — for example, by rainwater — even when the tubes are used for extended periods. The final dry solids content is correspondingly greater than that achievable by dredge dump dewatering. SoilTain not only acts as a reliable, long-term containment system but also minimizes odor emissions from the sludge.

SoilTain offers a state-of-the-art solution to sludge dewatering.

Click here to go to our videos!

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Material	Functions	Storage volume(s)	Circumference(s)
PP, renewable raw material	Filtration, Drainage, Containment	Up to 56,500 ft³	Up to 92 ft

Tube Dewatering

BENEFITS

- Low-cost solution requiring no core material
- Long-term protection against erosion
- Large-volume tubes create a continuous barrier spanning long distances
- Rapid colonization by marine flora and fauna
- Variety of materials to meet project-specific needs

SoilTain® Coastal Protection

Economical and eco-friendly coastal protection

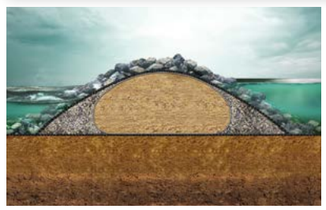
SoilTain tubes for coastal protection offer a cost-effective and natural-looking alternative to concrete and stone. The tubes can be filled with locally sourced materials such as sand, thereby eliminating the need for conventional rock core material. The securely retained sand ensures long-term protection of coastlines and riverbanks, with large-volume tubes enabling the construction of a continuous barrier over long distances.

The composite version of SoilTain comprises a nonwoven and a woven fabric that are mechanically bonded. As the outer nonwoven layer encourages the natural deposition of soil particles, abrasion resistance is increased, extending the service life. Durability is also enhanced by the higher soil retention capacity within the composite tube. Visually, the sand-colored material blends well with the landscape and is rapidly colonized by marine flora and fauna.

As always, HUESKER offers a variety of constituent materials to allow economical, project-specific selection of the most suitable product.

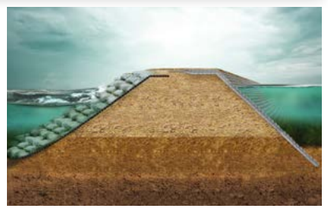
Click here to go to our videos!

Material	Functions	Types	Storage volume(s)
PP, PET	Reinforcement, Separation, Filtration, Containment, Protection	Bags, containers, tubes	0.4–916 yd³

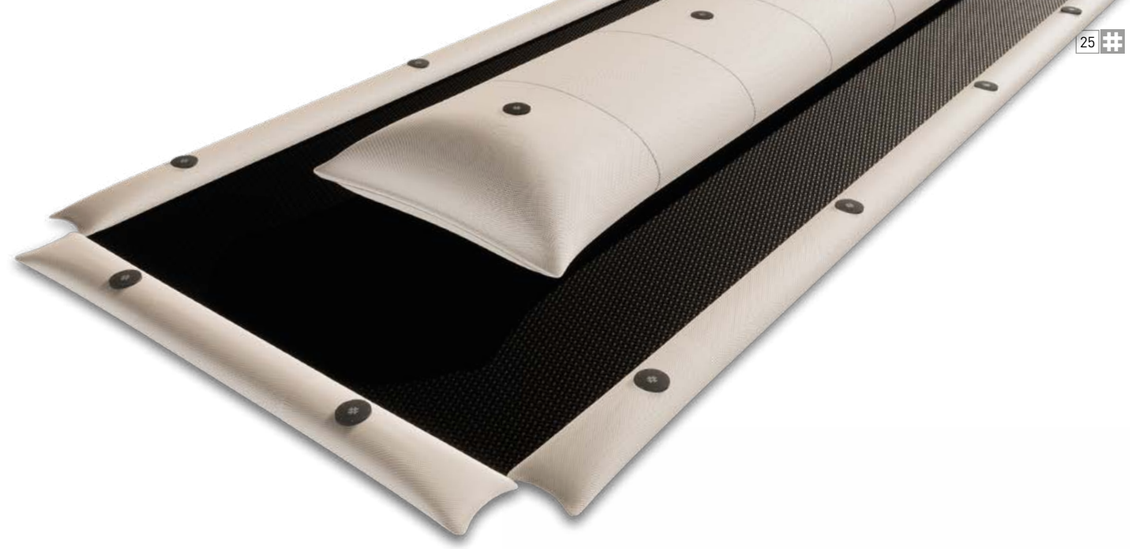


Breakwaters

Dams and Dikes



Bank Protection



SoilTain Tubes – Container Systems

Sustainable erosion control system

SoilTain Tubes
Geotextile tubes made of high-tensile Fabrics for large-format, heavyweight structures. Installed with a scour apron.

SoilTain Bags

the Sand Containers for all situations

SoilTain Bags Xtreme
Extremely robust sandbags made of a two-layer, needle-punched nonwoven (35 oz/yd²) for permanently exposed revetments and structures.

SoilTain Bags
Sandbags made of nonwovens or composites with a mass per unit area ranging from 17.7 to 29.5 oz/yd². For temporarily exposed or permanently covered structures made of small-format, flexible elements.

BENEFITS

- **Uniform mattress thickness for improved sealing performance with Incomat Standard**
- **Straightforward underwater installation (canal rehabilitation possible while the facility remains in service)**
- **Project-specific fabrication:**
  - **2.4 to 23.6 inches internal thickness**
  - **Permeable or impermeable**
  - **Can be stitched together into large panels on site**

Incomat®

Ideal solution for protection of waterbodies (slopes and shores)

Incomat offers comprehensive protection for hydraulic engineering structures. The textile formwork acts as a surface sealing system while protecting against erosion, mechanical damage, and buoyant forces in waterbodies. The different product types – Incomat Standard, Flex, FP and Crib – deliver the ideal solution for a wide variety of requirements. The vertical spacers integrated in Incomat Standard guarantee the achievement of an exceptionally uniform mattress thickness for superior sealing performance. Because Incomat is also suitable for underwater installation, many projects can be carried out without draining the canal or lowering operational water levels.

Incomat mattresses are custom-manufactured to meet project requirements. Our engineers will advise you on the ideal product thickness (2.4 to 23.6 inches), how to maximize mattress stability by varying spacer tape strength, and the selection between permeable and impermeable product versions. This will help you to determine the most cost-effective solution for your project. The use of Incomat eliminates the need for conventional formwork when using in-situ concrete slabs, thereby reducing construction time and costs compared to standard methods.

With over 60 years of proven performance, you can be confident that choosing Incomat is the right decision.

Click here to go to our videos!

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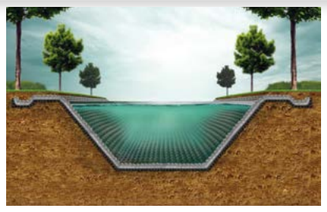
Material	Functions	Types	Mat thickness(es)
PA, PE, PET, renewable raw material	Sealing, Protection	Standard, Flex, FP and Crib	Up to 24 in

Bank Protection



Canals

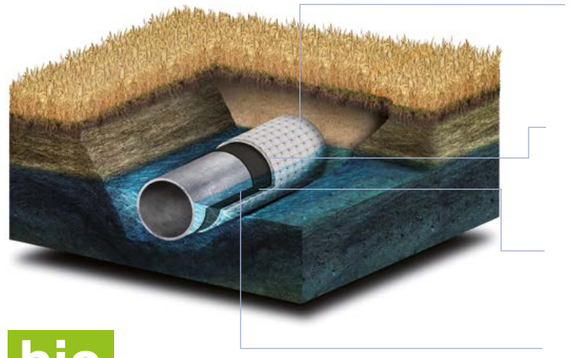
Bed Protection

Incomat® Pipeline Cover

Revolutionary pipe encasement system

Incomat Pipeline Cover (IPC) can be used wherever pipelines require protection against mechanical impacts or buoyancy uplift. The IPC system stands out from concrete encasements installed with conventional formwork systems due to its fast, efficient application.

Factory prefabrication of the geotextile formwork eliminates the need for complex on-site shuttering. The tailored units enable rapid assembly and streamline the concreting process, helping to accelerate overall project progress Furthermore, pipeline bends and varying pipe diameters can be easily accommodated through proper planning and custom manufacturing.



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Geotextile formwork mattress
Modified Incomat mattress with factory-fitted Industrial zippers for rapid pipe encasement.

Vertical ties
Spacers, adaptable to project requirements, maximize dimensional stability of the mattress and ensure consistent concrete cover.

Concrete fill
Fluid concrete for easy filling through factory-fitted filler necks.

Protective nonwoven (optional)
Optional incorporation of a nonwoven layer as additional protection.

Material	Functions	Length of individual units	Customized configuration
PE, PA, renewable raw material	Protection against external impacts, buoyancy and uplift	3.3 ft to 16.4 ft (concreting sections)	Mattress length/width/thickness, filler necks, possible factory prefabrication
Environmental performance	Classed as harmless under M Geok E 2016 (Guidance Paper on the Use of Geosynthetics in Earthworks for Roadbuilding Projects) and BBodSchV (German Federal Soil Protection and Contaminated Sites Ordinance) Tested to German guideline for hygienic assessment of elastomers in contact with drinking water (Elastomer Guideline)		

BENEFITS

- More landfill volume with less earthwork
- Better sealing than conventional mineral methods
- High internal and external shear strength
- Fast construction process due to simple laying
- Durable material (over 100 years) and economical to install

NaBento®

Maximum security and performance

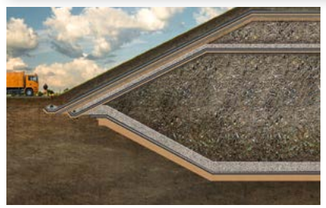
NaBento clay liners are our unique and sustainable waterproofing solutions for demanding construction projects. Our product portfolio includes NaBento clay liners, which are supplied with either calcium or sodium bentonite. The innovative special composite used as a top layer offers you maximum external shear strength through improved interaction with adjacent surfaces. This guarantees an increased level of safety and functionality on site.

NaBento clay liners compensate for up to four times more expansion at nominal load (up to 20 %) than conventional mineral seals making them highly robust in the event of unplanned settlements. Modifications: The optional use of calcium bentonite ensures permanently low permittivity, as it is the only clay liner not subject to natural cation exchange. Straightforward installation saves time on site.

The sealing performance offered by NaBento is guaranteed to benefit future generations.

Click here to access the brochure

Material	Coating	Bentonite weight	Water permeability k
PET (support geotextile), PP (carrier and cover geotextile), bentonite powder (sodium or calcium)	NaBento IR-N/IR-C: sand-rough surface	Up to 32.8 oz/yd²	IR-N: 6.6×10-¹¹ [ft/s] IR-C: 2.0×10-¹⁰ [ft/s]



Landfill sealing

Groundwater Protection

Dams and Dikes

BENEFITS

- Less earthwork and transportation
- Better sealing than with conventional mineral methods
- High shear strength due to precision needling
- Simple, low-dust installation for rapid construction progress
- Self-healing effect for unnoticed minor damage

Tektoseal® Clay

Easy to install, cost effective sealing

Tektoseal Clay is a mat approximately 0.4 inches thick and provides better sealing performance than mineral seals. This saves on earthwork and transportation. The nonwoven material used ensures strong friction behavior and allows installation on steep slopes (1:3 ratio). Compared to products with powdered bentonite, the incorporated granulated bentonite offers the advantage of low dust exposure and significantly improved working conditions on site.
This also reduces the formation of a lubricating film on the surface when moisture enters. This makes installation easier—thanks in part to the 16.7 feet roll width — which enables quick installation with fewer overlaps.

Tektoseal has low susceptibility to settlement and can accommodate up to 10% elongation without affecting permeability. The bentonite filling, with over 70% montmorillonite content and high swelling capacity, automatically seals minor mechanical damage that might otherwise go unnoticed, enhancing long-term reliability. For landfill construction, we also offer Tektoseal Clay with a LAGA suitability assessment and integrated self-sealing edges.

Tektoseal is the cost-effective sealing solution for your projects.

Material	Bentonite weight	Water permeability k	Function
PP (non-woven and woven fabric) / Bentonite granules (sodium)	19.7 oz/yd²	9.8×10-¹¹ [ft/s]	Sealing

Water reservoirs

Groundwater Protection

Landfill Construction

HUESKER services

HUESKER services begin with initial consultation and extend through on-site project support. We provide safe, customized, environmentally sound, and economically viable project solutions.

Engineering services

Technical consulting
We will recommend the most suitable product types to meet your specific requirements.

Technical design
Our engineers support design practices by performing verifiable calculations in compliance with international codes and standards.
Project-specific placement plans
We will provide installation and placement recommendations, along with detailed installation diagrams.

International knowledge transfer
Proven solutions and techniques based on best practices from our global network.

Documents

Certificates and approvals
Our products hold numerous certifications and approvals issued by organizations such as BAM, BAW, BBA, EBA, HPQ of DB AG, and LAGA, IVG, and SVG, depending on the product type.
Tender documents
We would be happy to provide proposals tailored to your specification texts.

Technical guidelines
Customized technical installation instructions will help ensure correct installation of our products.

Product services

Custom-designed project solutions
We will work with you to develop custom-fabricated products that meet your specific requirements.

Alternative solutions
We will propose alternative design solutions along with recommendations for adjustments and optimizations.

On-The-Spot

On-site instruction
When needed, our application technicians can provide support tailored to the specific requirements of product installation.

Installation aids
We can provide practical installation aids to simplify the application of our products.

Training
Product- and application-specific instructions.

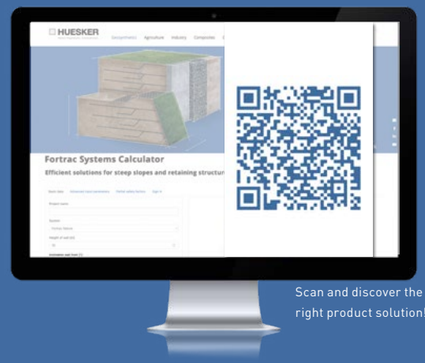
Our software solutions

Our online software solutions guide you easily to the optimal choice for your specific construction project.
With just a few clicks, you'll receive material recommendations and an initial calculation to help select the right geosynthetic product. The software solutions are available to you completely free of charge, with no registration required.

At the end of the calculation, you'll receive a PDF containing all relevant parameters, which you can save and reference later. Feel free to use the document or contact us directly. Together with our experienced engineers, we'll develop additional customized solutions for your project.

Fortrac Systems Calculator

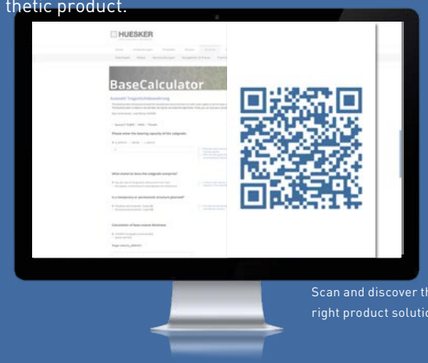
With our free design configurator, you can quickly and easily get an initial estimate for your geogrid-reinforced retaining wall, along with a cost indication to support further coordination with our engineers and experts.



Scan and discover the right product solution!

BaseCalculator

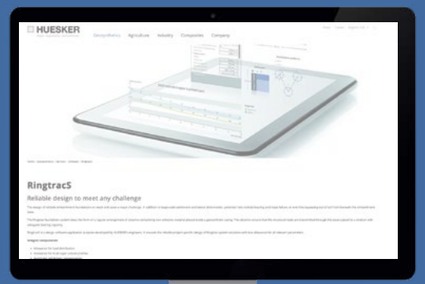
The BaseCalculator quickly determines the required base course thickness for traffic areas under standard loads and, with just a few clicks, provides a recommendation for the most suitable geosynthetic product.



Scan and discover the right product solution!

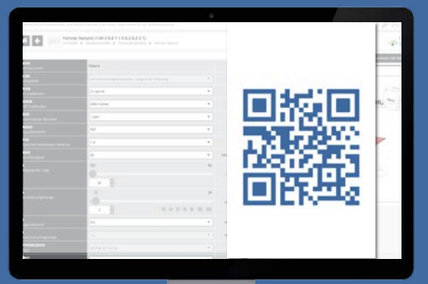
RingtracS

RingtracS is a design software application specifically developed by HUESKER engineers. It ensures reliable, project-specific design of Ringtrac system solutions by accounting for all relevant parameters.



BIM

BIM (Building Information Modeling) is a method used for digitally planning construction projects. By offering a range of BIM models, HUESKER provides an optimal foundation for the efficient design of your projects.



Scan and discover our BIM models!

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