



Basetrac®

Base Reinforcement – simplified by HUESKER



HUESKER

Ideen. Ingenieure. Innovationen.

Challenge

Base Reinforcement



Ground stabilisation measures are needed wherever soils with inadequate bearing capacity are required to carry temporary or permanent vehicular loads. Fluctuations in the intensity of loads on soils of varying softness place a variety of demands on base courses. Yet, all applications have the same purpose:

- Increased bearing capacity
- Improved trafficability
- Prevention of loss of base course material

Solution

Geosynthetics



Geosynthetics represent a tried-and-tested solution for base course stabilisation. Quite apart from their extremely high resistance to mechanical loads, they offer a number of key benefits, particularly in terms of cost-effectiveness and eco-efficiency. They ensure:

- Improved trafficability
- Increased bearing capacity
- Separation of base course material and subgrade
- Reduction in necessary base course thickness
- Maximisation of service life
- Reduced rutting
- Lower maintenance costs
- Bridging of inhomogeneities and evening out of settlement

Permanent Traffic Areas

1

TYPES

- Classified road construction
- Car parks
- Industrial and logistic facilities

SPECIAL FEATURES

- Long service life
- High deformation resistance

Temporary Roads

2

TYPES

- Access routes
- Haul roads

SPECIAL FEATURES

- Later removal, where necessary
- Occasional high loads over short periods
- Unbound surface course

Working Platforms

3

TYPES

- Crane bases, e.g. for wind turbines
- Foundation surfaces

SPECIAL FEATURES

- High temporary loads
- High risk in case of failure
- High deformation resistance

Railways

4

TYPES

- Rehabilitation
- New-build

SPECIAL FEATURES

- High dynamic loads
- Specific standards
- Long service life
- High deformation resistance

Traditional Applications

Vehicular pavements are permanently subject to heavy and fluctuating loads. The base course design needs to allow for the particularities of the application.



Function and Action of Geosynthetics

Geosynthetics perform a key function in the base course by increasing bearing capacity and improving trafficability.



Reinforcement

Membrane effect

Load spreading

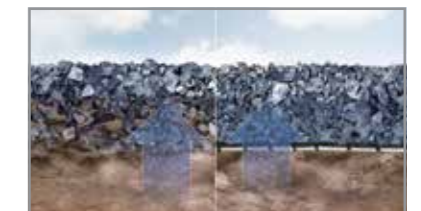
Enhanced resistance to bearing/soil shear failure



Separation

Separation of base course and subgrade

No loss of base course material into soft subsoil



Filtration

Avoidance of fine particle infiltration

Pressure-free water drainage

Dynamic filtration stability

New: Basetrac

One brand, a host of solutions

Basetrac is the new HUESKER brand for base course stabilisation. Through Basetrac, HUESKER has restructured its base course product portfolio and simultaneously unveiled a new base course concept – one founded on a simple scheme of requirements and solutions.

This allows prompt and straightforward identification of the most suitable products for all applications and all types of ground condition. Basetrac offers you the best cost-benefit ratio and simplifies the process of product selection and pricing, thereby vastly reducing effort even at the tendering phase. Yet, also during construction, Basetrac offers numerous features to make your work easier. Basetrac delivers tailored solutions to meet all requirements.



The Basetrac Product Line

With its four product types, Basetrac offers a one-stop solution for the most common base course requirements, thereby combining reliable performance with high costeffectiveness.

Basetrac Grid



| | |
|---------------------------|------------------------------|
| Product type | Woven geogrid |
| Material | PP, PET, PVA |
| Standard tensile strength | Biaxial up to 80 kN/m |
| Function | Reinforcement |
| Coating | Polymer |

Basetrac Duo-C



| | |
|---------------------------|--|
| Product type | Composite |
| Material | PP, PET, PVA |
| Standard tensile strength | Biaxial up to 65 kN/m |
| Function | Reinforcement, separation, filtration |
| Coating | Polymer |

Basetrac Woven



| | |
|---------------------------|--|
| Product type | PP woven |
| Material | PP |
| Standard tensile strength | Biaxial up to 60 kN/m |
| Function | Reinforcement, separation, filtration |
| Coating | - |

Basetrac Nonwoven



| | |
|---------------------------|-------------------------------|
| Product type | Geotextile nonwoven |
| Material | PP, blended fibre |
| Standard tensile strength | - |
| Function | Separation, filtration |
| Coating | - |

Simply Choose the Best Solution

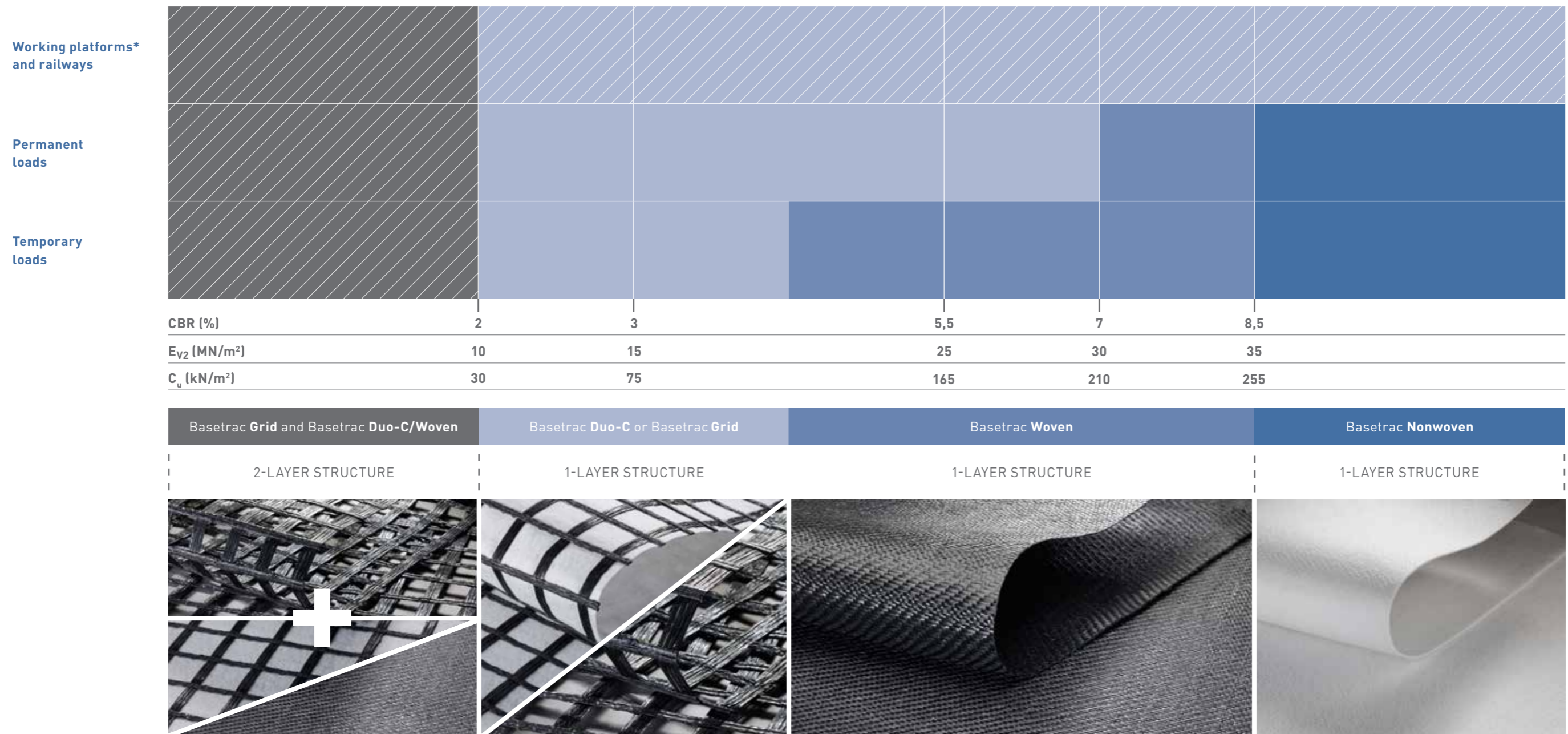
Basetrac base course concept

Basetrac not only offers the most cost-effective solution.

The new Basetrac base course concept also provides you with a simple means of selecting products for all normal-duty applications. This concept is further elaborated through the purpose-developed BaseCalculator software, which – after only a few clicks – singles out the best product for any application with due regard to all the relevant factors.

Simply find the best solution: <http://basecalculator.HUESKER.com>

COUNSELLING
BY HUESKER
RECOMMENDED



*Valid for low loads imposed by normal site traffic and tracked construction plant. Special verifications are required for high loads.

This is a schematic characterization of the products and provides no binding indication of the suitability of any product for your particular application. Please feel free to contact us for project-specific counselling.

Basetrac – Always a Good Choice

With Basetrac, quality and cost-effectiveness, durability and practice orientation, safety and simplicity are no contradiction – quite the opposite.

Benefits of Basetrac

The four products in the Basetrac family offer the same advantages. Even at the level of installation, the works are simplified by the use of wide rolls that are easily cut to size with utility knives. This boosts the installation rate and helps to cut construction costs.

The outstanding interaction flexibility of the pliable grids and wovens ensures that the base course delivers a high standard of quality and performance. To enhance safety and longevity, the product portfolio also includes solutions with the necessary chemical resistance for alkaline environments. Being free of sharp edges, our woven Basetrac products do not require operatives to wear gloves. This too improves the safety of site workers.



Rigid or Flexible Grids?

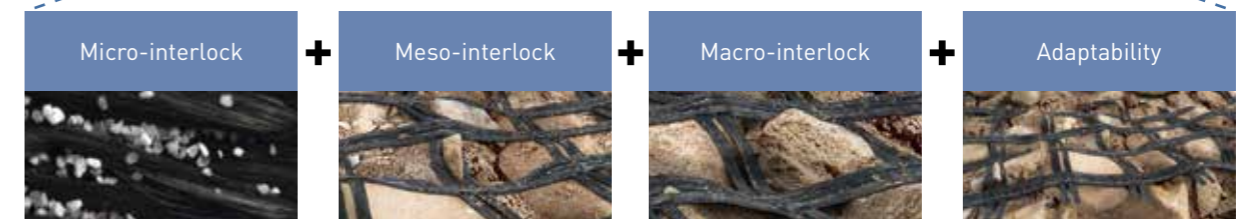
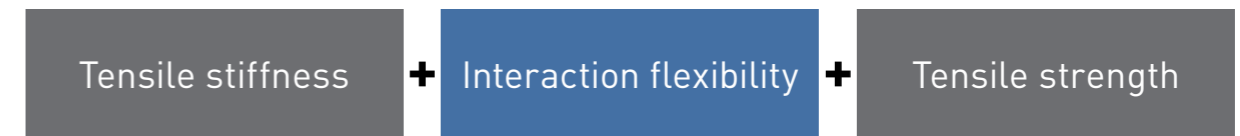
Tremendous benefits of interaction flexibility

Geogrids serve to improve the mechanical properties of soils. To resist forces with only minor deformation, they need to exhibit a certain amount of extensional stiffness. Yet, the grid must not be too rigid or it will inhibit the accommodation of forces by the soil itself.

To compensate for structural deficits in the works, a certain degree of tensile strength is also required. Basetrac geogrids excel not only by their good extensional and tensile strengths, but also by their very high interaction flexibility – a property offered only by flexible geosynthetics.

Good interaction flexibility implies a perfect blend of macro-, meso- and micro-interlock plus a high degree of adaptability to the soil. This substantially improves the interaction or bond between soil and reinforcement.

[Lackner, C. (2012), Prestressed reinforced soil – Concept, investigations and recommendations, dissertation, Graz University of Technology]



Rough-surfaced geogrids achieve microscopic interlock with soil particles (friction).

Favourable surface texture of geogrids promotes interlock between geogrid ribs and soil particles.

Mesh openings allow interlock of stones with geogrid.

Flexible geogrids are capable of adapting to unevenness in soil during/after compaction.

- Excellent adaptability
- Fewer voids
- Activation of tensile strengths even during installation
- Evening out of inhomogeneities
- Reduced installation damage
- Formation of a flexible integral system with soil

Getting You Out of a Rut

Tapping new potential

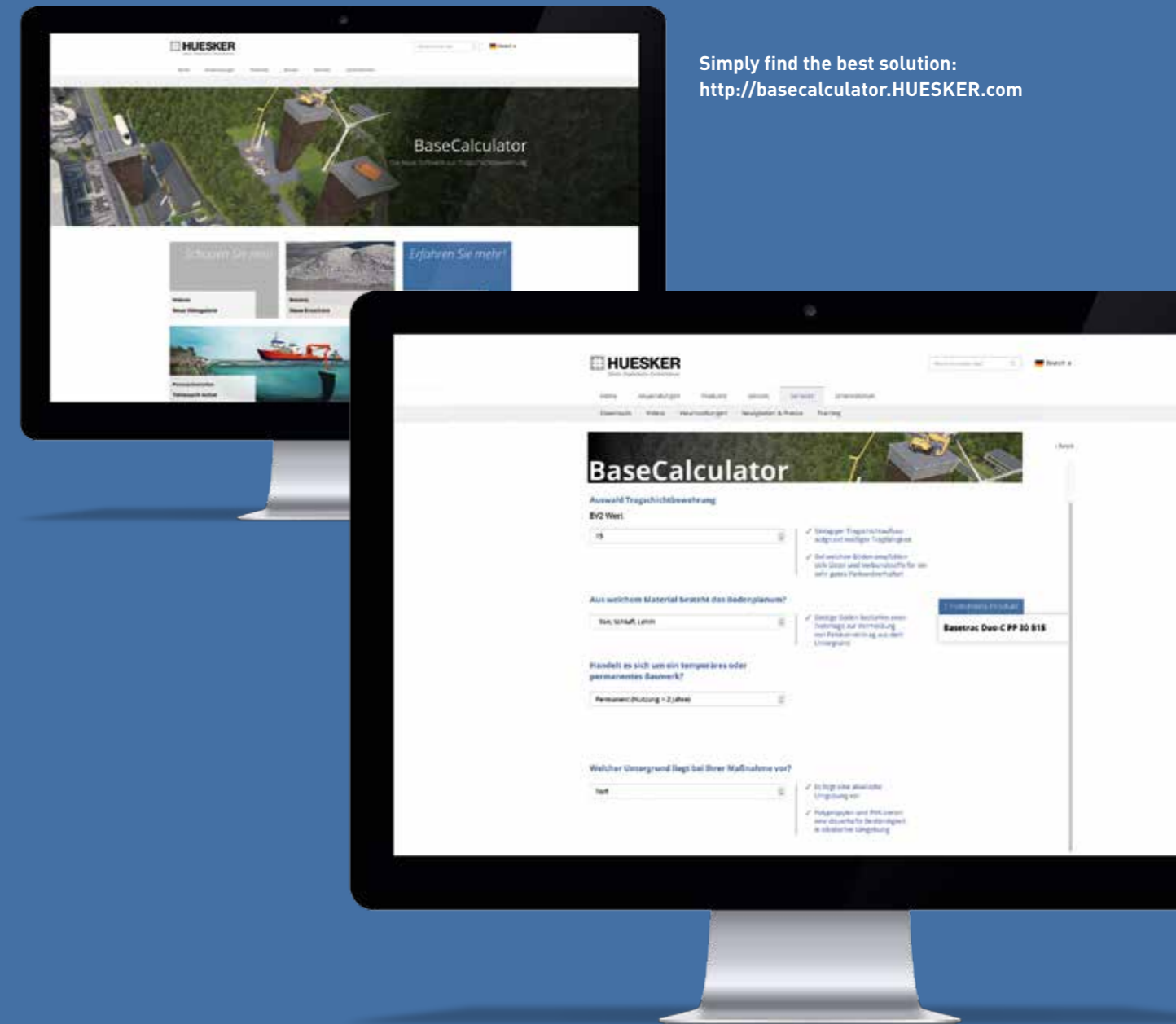
With Basetrac, HUESKER has simplified its product range as well as the product selection and installation process. It will help you save time and money while unlocking new business opportunities.

Naturally enough, apart from the products, you will also enjoy the full benefits of HUESKER's in-depth expertise. Our sales team will be glad to advise you with regard to your precise requirements while our engineers will provide support in the structural calculations for your project.

The Basetrac product family will still, of course, be complemented by our familiar high-tensile reinforcement products for more extreme demands, e.g. Stablenka®, Robutec® and Fortrac®.

Accordingly, HUESKER will always deliver the best answer to your base course stabilisation needs. The most common requirements can nonetheless be easily, promptly and inexpensively met by a solution from the new Basetrac product family. Hence, the most important thing that Basetrac simplifies is your decision.

Base reinforcement – simplified by HUESKER.



Simply find the best solution:
<http://basecalculator.HUESKER.com>

The BaseCalculator

The BaseCalculator software, available online, offers a simple means of finding the recommended HUESKER solution. With only a few clicks, you will receive advice on the most suitable geosynthetic product for your application along with details of how to save on base course material. This service is offered by HUESKER free of charge and without any time-consuming registration.

Basetrac®, Stablenka®, Robutec® and Fortrac® are registered trademarks of HUESKER Synthetic GmbH.

HUESKER Synthetic is certified to ISO 9001, ISO 14001 and ISO 50001.



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