



enka® solutions

ENKAMAT®

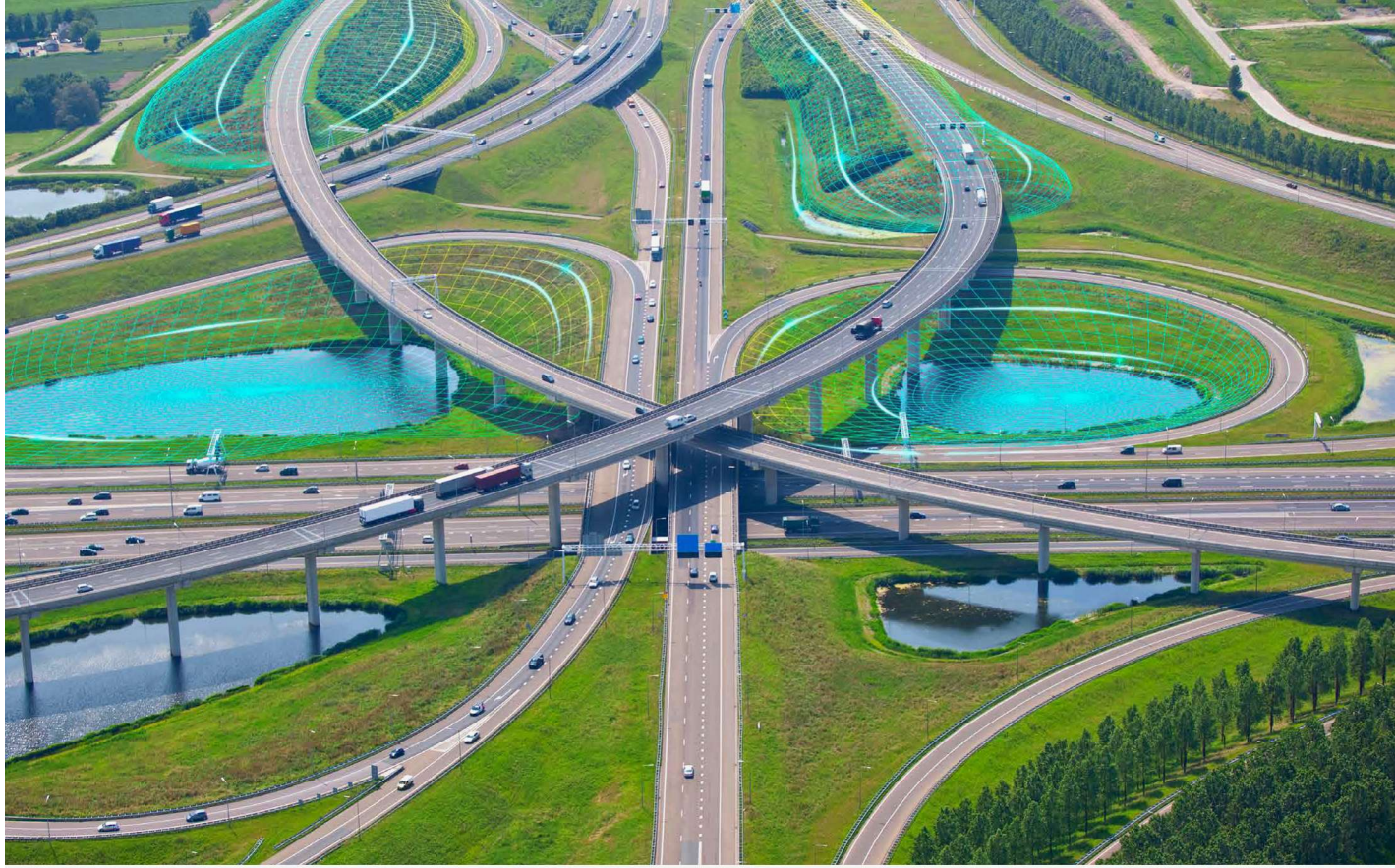
HIGH PERFORMANCE EROSION CONTROL MATS
PRODUCT OVERVIEW



GeoSynthetics

 **FREUDENBERG**
PERFORMANCE MATERIALS

INNOVATING TOGETHER



ENKASOLUTIONS

EXPERTISE, RELIABILITY AND RESPONSIBILITY

Expertise

We began creating our knowledge and expertise base on our products and the industry way back in the 1950s, which means that today we have a multitude of project references worldwide. Coupled with extensive research conducted internally and externally with renowned universities and specialist organisations, our Research, Development and Innovation team is constantly working in conjunction with clients all over the world to develop new solutions to add to our range of products and applications. Our team of experienced engineers providing support across all market segments adds to this to make the numerous innovative solutions come into fruition. We see expertise both as the foundation of our business and as an ongoing process. Building on our already long-standing expertise is work that is never done.

Reliability

It's our daily mission to be a reliable partner for our customers in order for them to grow their business in a sustainable way. Reliability covers a range of different areas and ensures peace of mind for our partners.

As well as our wide, high quality product range, we offer technical and marketing support for all market segments. All our processes are ISO 9001 certified and every single product is tested by our highly qualified laboratory staff. Furthermore, we hold specific product certifications in many different countries (e.g. Asqual, NorGeoSPec, Benor, HPQ, and BBA). Delivering what we promise is part of our nature.

Responsibility

We take our responsibilities seriously. This is why you can also rely on our solutions being sustainable. We not only examine the full product lifecycle and its impact on the environment to make continual improvements in terms of environment, nature and soil, but also ensure we meet all legal requirements. We train and advise clients and stakeholders, and contribute to the establishment of new standards to help propel our entire industry forward into the future. It will therefore come as no surprise that safety is also a high priority for EnkaSolutions. Safety is inherent to all our solutions and products, as part of our responsibility to care both for the people who use them on building sites, and our employees.



THREE-DIMENSIONAL MATS

When naturally growing vegetation alone cannot prevent erosion, a three-dimensional open structure mat like EnkaMat is the solution. The use of well-rooted grass for erosion control is a natural and attractive idea. But natural vegetation on its own has limited soil retention qualities. When there is a high risk of erosion, grass and other vegetation will be ruled out. With the help of EnkaMat, vegetation can withstand these risks. Green and permanent solutions are thus created for places where otherwise erosion would have its way.

Solid erosion protection

EnkaMat is a strong three-dimensional polyamide (PA) mat with an open structure. It functions as a protective, reinforcing and integrated intermediate layer between natural vegetation and soil, enabling root systems to grow and gain a secure hold on the ground beneath.

Always the right solution

EnkaMat can be used effectively in many situations. Whether erosion control is required above, at, or below the water level or on dry slopes, a suitable EnkaMat variant is available for any condition. EnkaMat is also used as a grip layer to stabilize a thick top soil layer over soil slopes.

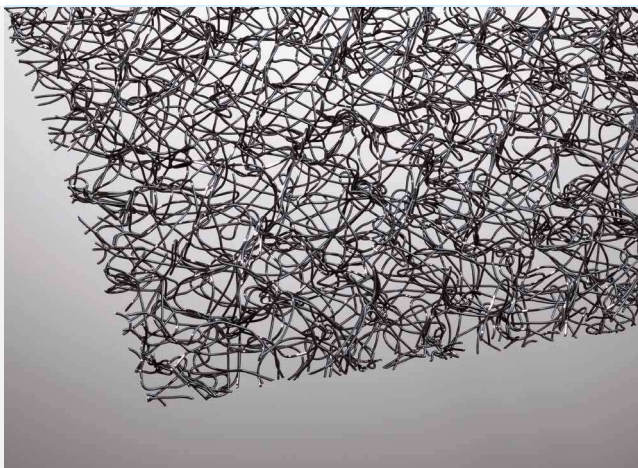
Why is EnkaMat such a good solution for erosion related problems?

- Integrated and robust system
- Durable and environmentally friendly
- Immediate protection against erosion
- Fast growth of vegetation
- Easy to install
- Wide choice of thicknesses and structures
- No maintenance needed
- Economic in labor and material

ENKAMAT®

3-DIMENSIONAL MAT FOR EROSION CONTROL

EnkaMat is a three-dimensional polyamide mat with an open structure. It prevents erosion on embankments, slopes and river banks, canals and reservoirs.



EnkaMat functions as a protective reinforcing and integrated intermediate layer between natural vegetation and soil. It provides protection above and below the waterline thereby creating a permanent solution. Either seeded, filled with topsoil or mulched, EnkaMat keeps the fertile soil in place and prevents the fill from being washed out. Vegetation soon establishes itself with root systems that are reinforced by EnkaMat's special mat structure. EnkaMat can be used in many areas where erosion takes place, such as watercourses, embankments, slopes and spillways.

EnkaMat is available as an open mat for dry slopes, or as a 'flatback' mat (with a flattened underside) for wet slopes and for use below the waterline.

Technical details

EnkaMat is a strong, three-dimensional mat with an open structure, made from high quality polyamide (PA) monofilaments which are welded where they cross. It is available in thicknesses up to 20 mm. EnkaMat is produced in rolls up to 4 m wide. It is also available with a 'flatback' for use with stone chip fill where it is permanently submerged below the water level. EnkaMat creates an artificial root structure by its high filament density – up to 2,980 m filaments per m².

EnkaMat has been tested by many independent organisations.



Functions

- Erosion control

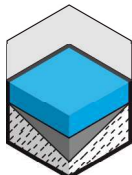
Application areas

- Lakes, river embankments, watercourses and secondary coastal applications
- New or repaired dry slope embankments
- Spillways

Features and benefits

- A permanent and green solution
- Open structure encourages swift vegetation growth
- Reinforces vegetation root systems
- Blends discretely into the landscape
- Remains locked to the ground by root systems
- Adapts easily to soil profiles
- Excellent bonding of individual filaments
- Over 90% voids
- Light, flexible and does not float in water
- High UV resistance
- Maintenance free

Product functions



Erosion control





EnkaSolutions originated in the late 60s when we invented the unique 3D-structured polymeric mat which is typical of so many Enka products even today. Ever since its invention we've been pushing forward its possibilities in terms of varieties of product and applications, constantly expanding the EnkaSolutions portfolio through proprietary technologies.

The scope of markets supported by EnkaSolutions is wide-ranging – from Civil Engineering and Waste Management to Building and Sports – including solutions in such specializations as water and gas drainage, prevention of erosion, soil stabilization, soil consolidation, vibration control, shock absorption and ventilation.

We serve industrial markets in areas like Composites. The EnkaSolutions portfolio includes market-leading and certified products such as EnkaMat®, EnkaDrain®, EnkaGrid®, EnkaVent®, EnkaSonic®, Enka®Flex, Enka®Spacer, Enka®Fusion,

and Colbondrain®, each with proven track records around the world.

For global supply, we maintain production facilities and sales offices in Europe, North America and China. (Customer-specific) product developments and tests are conducted by our in-house R&D centers in Europe and North America and by independent external institutions. Our quality management system has been approved by Lloyd's Register Quality Assurance to the ISO 9001:2015 standard.

Provision of the best solutions demands a thorough understanding of the need, and much of our success is down to our close collaboration with our valued customers.

EnkaSolutions is a brand of Freudenberg Performance Materials.

Would you like to discover what EnkaSolutions can do for you?

Simply contact the local team with your requirements and together we will find the best solution to your challenge.



Geosynthetics Ltd
Unit 3 Hinckley Park,
Avery Way, Hinckley,
Leicestershire, LE10 3FF
e: sales@geosyn.co.uk
t: 01455 617 139

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