

Enkagrid MAX[®]

STIFF POLYPROPYLENE GEOGRID

HAUL ROADS

PAVED ROADS

SITE IMPROVEMENT

BASE REINFORCEMENT

FOUNDATION IMPROVEMENT

HIGHWAY / HEAVY
CONSTRUCTION

SECONDARY SLOPE
REINFORCEMENT

Enka-Engineered
CIVIL ENGINEERING
PRODUCTS

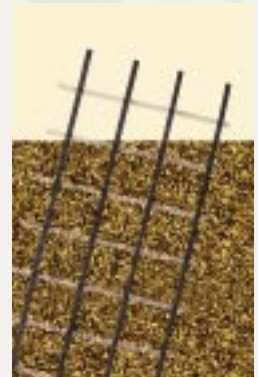
COLBOND



MAX

Enkagrid MAX[®]

Enkagrid MAX is a rigid, biaxial geogrid of extruded polypropylene strips developed to provide a high passive bearing resistance with optimum interaction in all soil types. This unique double-weft structure promotes consistent stress-strain performance throughout and makes it ideal for base reinforcement in permanent and temporary roadway projects. Enkagrid MAX provides MAXimum price/performance benefits and is available in strengths of 20, 30 and 40 kN/m.



PROJECT TYPE: Airport Runway

LOCATION: Eek, Alaska

ENGINEER: Alaska D.O.T
Anchorage, AK

CONTRACTOR: Faulkner Walsh
Anchorage, AK

Enkagrid MAX 30 was used to stabilize and reinforce the base course of an airport runway in the remote village of Eek, Alaska. The native soil is fine, poor draining silts with a high concentration of organic matter with very little bearing capacity. A woven geotextile was used as a separation layer with Enkagrid MAX placed directly on top to increase the soil's bearing capacity, stabilize the base, and reinforce the asphalt runway.





PROJECT TYPE: Foundation Improvement

LOCATION: Tampa, FL

ENGINEER: Universal Engineering Sciences
Tampa, FL

CONTRACTOR: VEA
Alpharetta, GA

Dynamic compaction was used to prepare soft soil of a former landfill where a Lowe's Home Improvement Center was being built. After the soil was compacted, Enkagrid MAX 20 was used as reinforcement for the base course underneath the concrete floor. Using Enkagrid MAX assured building owners of a stabilized foundation for the structure.



PROJECT TYPE: Street Rehabilitation

LOCATION: Las Vegas, NV

ENGINEER: City of Las Vegas
Las Vegas, NV

CONTRACTOR: Las Vegas Paving Corporation
Las Vegas, NV

In a residential neighborhood, asphalt / concrete streets were cracking and rutting due to no precautions being taken during the initial construction on soft soil. The repairs were costly to the city and they decided to correct the problem to increase life expectancy and reduce maintenance costs of the roads. The streets were ripped up, the soil re-graded, and geotextile / geogrid layers added for separation and base reinforcement. Enkagrid MAX 20 was chosen because of its superior strength and the 5m wide rolls sped up installation time.



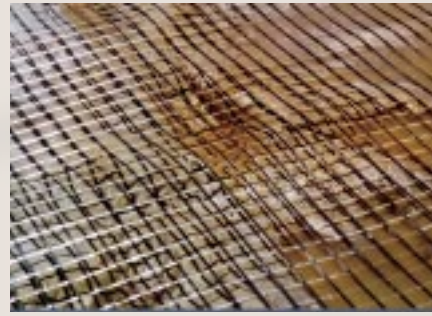
PROJECT TYPE: Haul Road

LOCATION: Tübingen, Germany

CONSULTANT: Kling Consult Ing.
- Ges. Fuer Bauwesen GmbH
Kürnbach, Germany

CONTRACTOR: Kirchhoff-Heine Strassenbau
GmbH & Co. KG
Langenargen, Germany

Enkagrid MAX 30 was used to stabilize extremely soft soil with a low bearing capacity so construction traffic could continue to travel to a large power plant construction project. A needle-punched nonwoven was used to prevent the coarse gravel being pushed into the soft soil but it was still almost impossible to drive over the road. Enkagrid MAX was placed on top of the geotextile / gravel and provided instant sub-base stabilization so the project could continue under its tight planning schedule.



Characteristic	Property Measurement	Test Method	MAX 20	MAX 30
Reinforcement stiffness				
Tensile Modulus at 2% (lb/ft) MD XD	Wide-width Tensile Test	ASTM D6637	20,556 34,260	34,250 34,250
Tensile Modulus at 5% (lb/ft) MD XD	Wide-width Tensile Test	ASTM D6637	16,445 27,408	27,400 27,400
Ultimate Tensile Strength (lb/ft) MD XD	Wide-width Tensile Test	ASTM D6637	1,370 2,192	2,055 2,192
Initial Junction Stiffness (lb) [Modulus]	Junction strength at 1% elongation	GRI-GG2	67,500	67,500
In-Plane Rotational Stiffness (cm-kg/deg)	Initial Tangent Modulus based on Angular Rotation	GRI proposed test, USCOE modified	9.0	9.0
Flexural Rigidity (mg-cm)	Cantilever Test	ASTM D 5732	450,000	950,000



Colbond Inc.

Colbond Inc. is a technology-based global producer of multi-dimensional matrix and nonwoven products. Within Colbond there is a world of technical experience spanning the globe. Innovative product development and manufacturing expertise make Colbond a leader in polymer processing technology. Colbond's family of multi-dimensional matrix products are manufactured from nylon, polyolefins, and polyester. The open structure allows for free movement of air, water, resin, and foam. Our technology allows us to heat-bond, glue, ultrasonic weld, and stitch textiles, foils, and paper creating some of the most innovative products available in the market today. For a complete overview of our products sold in the flooring, construction, automotive, civil engineering, and building and industrial markets visit www.colbond.com.

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Sand Hill Road
P.O. Box 1057
Enka, N.C. 28728
Tel. (+1) 828-665-5050
Toll Free: (+1) 800-365-7391
Fax (+1) 828-665-5009

email:
enka-engineered@colbond.com

Internet:
www.colbond-usa.com