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## NAUE Releases “The Four Dimensions of Secugrid®” Series

*“Four Dimensions...” Offers a New Approach to Understanding the Advantages of Geogrids for Stronger Roads, Steeper Walls and Greener Construction*

**1 September 2009** - The four dimensions of length, width, depth and time greatly influence civil engineering: project scope, design, product selection, expected service life. Today, NAUE introduces you to a new four-dimensional way of understanding reinforcement applications: the Four Dimensions of Secugrid®.

NAUE’s new Secugrid® publications are divided into four key reader interest areas (Customer, Quality, Technics, and Ecology) and all four are subdivided into four discussions, such as maximising land use while minimising site disturbance, the importance of manufacturing methodology, and sustainable practices in construction. Running throughout the entire series are four main “dimensions” one needs to understand when using geogrids in reinforcement applications:

- **Dimension 1:** the individual bars
- **Dimension 2:** joining bars to form the geogrid
- **Dimension 3:** how geogrids interact with soil
- **Dimension 4:** how geogrids extend the service life of installations and lower costs over time

These dimensions reveal the most vital concerns for geogrid reinforcement use and why they must be defined this way for long-term value. For example:

- Excellent stress/strain characteristics and strength transfer in the geogrid bars provide support to the soil and prevent deformation, so the lateral support of Secugrid® actually provides support in all directions.
- Superior torsional rigidity and radial interlocking with its high junction strength is provided by NAUE’s patented manufacturing method and use of extruded flat-bar construction.
- When interacting with and strengthening soil, Secugrid® demonstrates exactly what one needs: high strength and a high modulus at low elongations (less than 2%). But performance in realistic design conditions is the measure by which geogrids must be judged. High strength and high modulus at low elongations is that measure.



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- The use of Secugrid® geogrids leads to greener, more sustainable construction. It greatly reduces the need for fill material that is environmentally damaging to mine, process and transport. And it allows for more efficient land use through the construction of taller and stronger mechanically stabilised earth (MSE) walls.

Other advantages of geogrid reinforcement explored in the “Four Dimensions” series include how durability and product stiffness promote radial interlocking, installation longevity, the decreased need for maintenance, and much more.

To obtain a free copy of the NAUE Secugrid® “Four Dimensions” binder, please contact Katrin Tiemann (tel. +49 5743 41 232):, [ktiemann@naue.com](mailto:ktiemann@naue.com), or visit [www.secugrid.com](http://www.secugrid.com) and fillout the PDF request form.

## ABOUT NAUE

NAUE GmbH & Co. KG, active globally in the manufacture of geosynthetics since 1967, is an ISO 9001 certified group of international companies and manufactures geotextiles, geomembranes, GCLs, geogrids, drainage and erosion control materials for all civil engineering and geotechnical applications. NAUE also offers product development and geotechnical advice to assist with the most challenging engineering projects. The company's global specialties include: filtration, drainage, reinforcement, containment and erosion control landfills, groundwater protection, civil engineering, tunneling, waterproofing and hydraulic engineering. NAUE pioneered the needlepunched method of geosynthetic clay liner (GCL) production in 1987 and recently received an award in recognition of the company's activities on development and research on needlepunched GCLs from the International Geosynthetics Society (IGS) for this work. In 1999 NAUE invented a new technology for the manufacturing of Secugrid® geogrids. The reinforcement bars are highly-oriented and uniformly extruded and drawn to achieve a high modulus and high strength at low elongations and are firmly combined in machine and cross-direction to a structurally sound and stable geogrid for soil reinforcement.

Visit the company's worldwide website at [www.naue.com](http://www.naue.com). Individual country websites, in multiple languages, are available through the website.

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Product photographs and NAUE logo images available upon request.  
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