

# TriAx<sup>®</sup>

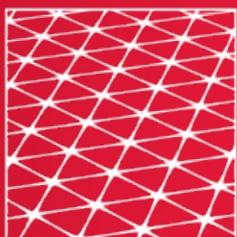
## GET IN, GET OUT AND GET THE JOB DONE!

A GUIDE TO PRODUCTS, SYSTEMS AND SERVICES



This access road near Mobile, Alabama, was a contractor's nightmare. The unpaved road, built with fabrics, rapidly failed as the trucks were delivering fill. Look inside to see the "stiff" Tensar<sup>®</sup> Geogrid solution.

# Tensar<sup>®</sup>



## TENSAR® GEOGRIDS

Tensar® TriAx® Geogrids stand the test of time, performing better than punched-and-drawn Tensar Biaxial geogrids due to more effective stress transfer and confinement capabilities. For more information, visit [www.tensarcorp.com/triax](http://www.tensarcorp.com/triax).

Whatever materials you use on a job, the measure of their success or failure is your bottom line. For more than three decades, Tensar® Geogrids have been helping contractors improve their bottom line by saving them time, money, and materials.



This is the same site shown on the cover with the same soil conditions. But there's an important difference – this time, the road was built with Tensar Geogrids and held up under repeated truck traffic. That's the Tensar difference.



*Snowshoe Effect – Tensar® TriAx® Geogrids distribute heavy loads over soft soils just like a snowshoe supports the weight of a man over soft snow.*

## Tensar® TriAx® Geogrids Deliver What Contractors Need

Almost every contractor has faced this problem: you're ready to go to work, but you can't get onto the site because of poor site conditions or bad weather. The site is wet and sloppy, so you can't start the job. Equipment and manpower downtime is costing you time and money while you wait for the site to dry. The result – additional costs and scheduling problems, especially if your equipment is needed elsewhere.

You have options. You can over-excavate and import fill, but that is expensive. You can try to lay down a layer of fabric and aggregate fill to help you get onto the site, but if the soil is too soft, installation may be impossible. What do you do?

There's a better answer – Tensar® TriAx® Geogrids. Some sites are just too tough for fabrics to handle. Some areas where

fabrics are used need so much maintenance after installation, or require such a large fill thickness, it hardly seems worth it to have used them in the first place. Plus, fabrics can be difficult to install. Who needs the hassle?

Tensar TriAx Geogrids offer a better solution. When faced with the cost of losing equipment production time or wasting valuable man-hours, using TriAx Geogrids can be the best decision you make. Since they are easier to install, use less aggregate fill, and require no skilled labor or specialized equipment, TriAx Geogrids help you get in, get out, and get the job done on time.



*Even in soft soils and other less than ideal site conditions, Tensar TriAx Geogrids provide soil stabilization and reinforcement.*



*To install Tensar Geogrids in these types of conditions, simply roll them out with an overlap – there is no sewing required.*

Whether you're in the field or in the office, you can quantify the thickness and cost savings of using Tensar® TriAx® Geogrids with the Subgrade Improvement Slide Rule. This simple and precise tool shows solutions for a wide range of real-world, soft-soil scenarios. It also features a cost analysis function that lets you make bottom-line economic comparisons of stabilized and unstabilized solutions. We also offer a pocket card that allows easy estimation of subgrade soil strengths and aggregate thickness requirements. To order your free slide rule and pocket card, call 800-TENSAR-1 or contact your local Tensar Geogrid representative.



**IMPROVE SITE ACCESS.** Tensar TriAx Geogrids help you get onto the site, even with bad weather or poor soil conditions. On sites you can barely walk on, simply roll out the geogrid and push out a layer of aggregate. Now you've got a firm, free-draining platform or a reliable access road. With TriAx Geogrids, bad sites and poor weather won't be a challenge anymore.

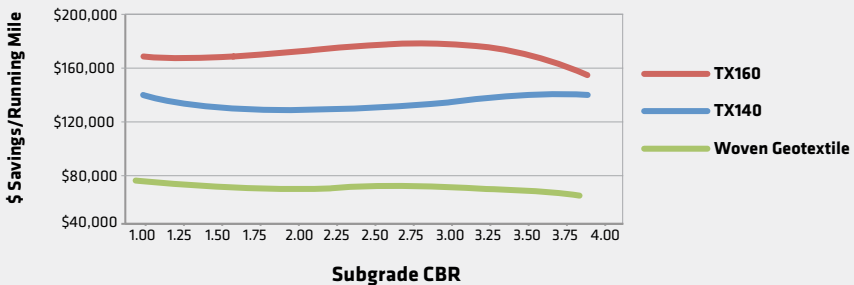
**REDUCE CUT AND FILL.** Removing bad soils is getting more and more expensive. Contaminated areas require special (and costly) disposal. Now you can work on top of weak soils by adding a layer of TriAx Geogrid and aggregate fill. The result – less undercutting, backfilling, and disposal costs. And don't forget, Tensar International has the experience to help you determine the right fill thickness for your projects.

**REDUCE AGGREGATE FILL THICKNESS.**

In test after test, Tensar TriAx Geogrids have proven their value by enabling a thinner, stabilized aggregate fill layer to have the identical bearing capacity and serviceability as a thicker, unstabilized aggregate fill layer – or even a layer with a fabric under it. A reduction in aggregate thickness can be achieved through the use of TriAx Geogrids, with no change to the road's performance.

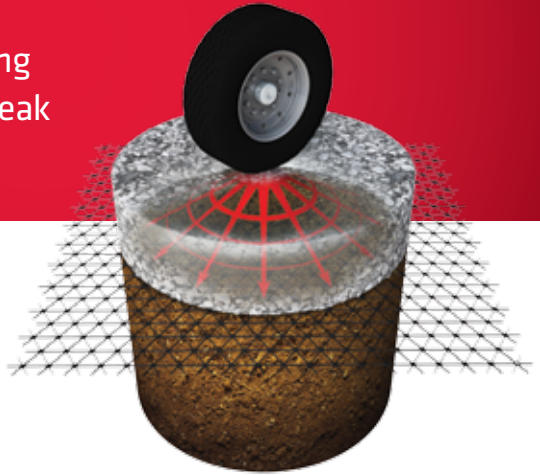
**VALUE ENGINEER FOR PROFIT.** You can Value Engineer (VE) for profit by using TriAx Geogrids to construct thinner fill layers. When curbs determine the final pavement grade or existing utilities limit undercutting, it is possible to construct a reliable but thinner base course without sacrificing durability and without expensive reconstruction or utility re-routing.

**Cost Savings vs. Subgrade CBR**



Typical cost savings per running mile of a 25 ft wide permanent haul road.  
Aggregate Cost = \$20.00/ton in-place.

To put it simply, for stabilizing aggregate, especially over weak subgrades, stiffer is better.



*Mechanically stabilized layer incorporating TriAx Geogrid*

TriAx® Geogrids can help with fast-track projects and those with high costs associated with aggregate fill, over-excavation, or haul off.

**REDUCE MAINTENANCE.** TriAx Geogrids have saved time and money on thousands of jobs. A key advantage is reliability. Once installed, the surface needs less maintenance than a surface underlain by fabric. On jobs across the U.S., access roads built with TriAx Geogrids have stood up to repeated passes of fully loaded haul trucks with little or no maintenance, even on sites where roads containing fabric had already failed.

**SIMPLIFY INSTALLATION.** Our lightweight rolls are easy to handle and easy to cut in the field. They make it simple to adapt to curves and utility projections. The biggest advantage in installation – you can roll

Tensar TriAx Geogrids out onto the subgrade and walk on them, even in the weakest soil conditions. Adjacent rolls of Tensar Geogrids normally don't require any connection, since aggregate fill simultaneously interlocks with overlapping geogrid apertures. A simple overlap is sufficient and no sewing is required.

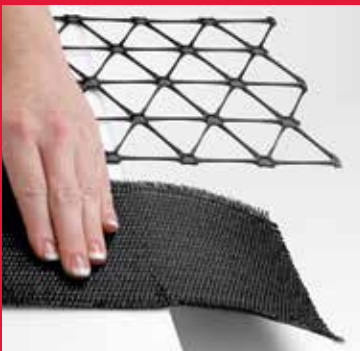
**NOTE:** Before beginning any project, please consult the current Tensar TriAx Geogrid Installation Guide to ensure optimum performance and to verify fill specifications.

Tensar TriAx Roll Characteristics								
Product	Roll Width		Roll Length		Roll Area		Roll Weight	
	(m)	(ft)	(m)	(ft)	(m <sup>2</sup> )	(SY)	(kg)	(lbs)
Tensar TriAx TX140-475	4	13.1	75	246	300	358	58.6	129
Tensar TriAx TX140-375	3	9.8	75	246	225	268	44.0	97
Tensar TriAx TX160-475	4	13.1	75	246	300	358	72.1	159
Tensar TriAx TX160-375	3	9.8	75	246	225	268	54.0	119

Compared to other geotextiles or flexible grids, Tensar® Geogrids spread road loads over a wider area of subgrade, lessening the impact of heavy loads and reducing installation and maintenance costs.

## How Stiff are Tensar® TriAx® Geogrids? See for Yourself.

Take a sample of Tensar® TriAx® Geogrid and place it over the mouth of a coffee cup. Press down and feel the resistance. Then try that with a flexible grid or any geotextile. You can feel the difference. Now just imagine the support that Tensar TriAx Geogrids provide when placed on soft soils.



Take a piece of fabric and a piece of Tensar TriAx Geogrid. Push them over the edge of the table, as illustrated. The TriAx Geogrid does not sag. It is much more rigid than the geotextile. That stiffness strengthens the performance of Tensar TriAx Geogrids. Stiff geogrids create a “snowshoe effect,” spreading the load over a wider area of subgrade just as a snowshoe spreads a person’s weight over soft snow. It’s easy to claim a product performs “just like” Tensar Geogrids but actually proving it is a whole different job.

**TENSAR® INTERNATIONAL CORPORATION**  
THE FIRST GEOGRIDS, THE BEST GEOGRIDS™

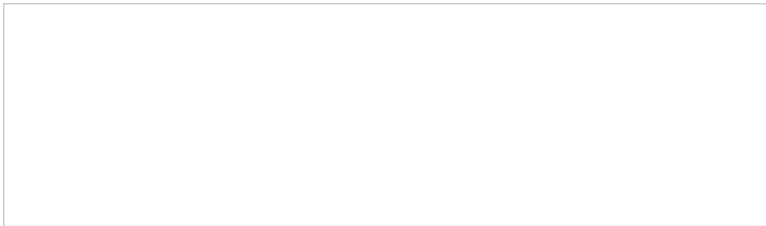
For more information on Tensar® TriAx® Geogrids, please  
call **800-TENSAR-1**, visit [tensarcorp.com/triax](http://tensarcorp.com/triax)  
or e-mail [info@tensarcorp.com](mailto:info@tensarcorp.com)

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