# Chemical Methods vs. Geogrid for Stabilization

This chart gives a convenient side-by-side comparison of the pros and cons associated with chemical methods (e.g., cement, lime, fly ash) and geogrid stabilization during different phases of construction.

**DURING CONSTRUCTION** BEFORE CONSTRUCTION POST CONSTRUCTION

#### Soil Types

Chemical

Most Types

Geogrid

Geogrid

• Filtration Check



All Types

#### Weather for Installation

Chemical



Above 40°F to 50°F and No Rain

## Geogrid



All Weather

#### **Traffic and Site Access**

**Required Equipment** 

Chemical



3 to 7 days **Curing Time** 

#### Geogrid



Immediate after Placement

#### Withstands Differential Movement

Chemical



Geogrid

Nο

Yes

#### **Durability Considerations**

Chemical



- Freeze Thaw
- · Wet-Dry Cycle
- Shrinkage Cracking

### **Speed of Installation**

Chemical



- Test Mix
- Blend Chemicals
- Grade
- Compact
- Mellow



Geogrid

- Unroll Geogrid
- Place Fill
- Compact

#### Specialized

Chemical

#### Geogrid



No Special Equipment Required

### Recycling

Chemical





Difficult to Recycle



No Issues

# Tensar

Call 800-TENSAR-1

**Visit TensarCorp.com** 

Source: Han, Jie, Ph.D., P.E., F.ASCE "Chemical and Geosynthetic Methods for Roadway Stabilization." April/May 2022 Geostrata Magazine.

Avoid unnecessary expense, construction downtime and uncertain design life with Tensar geogrid.

When all relevant factors are considered, geogrid is often the best option for addressing poor soils. Contact us the next time you run into bad soils and we can help you save time and money on your site.

#### **Environmental Issues**

Chemical





Leaching and **Runoff Concerns** 



No Concerns