

Expanded Polystyrene Geofoam

Lightweight Material for Road Construction

Expanded Polystyrene Geofoam (EPG) is a rapid embankment construction technique used in [Accelerated Bridge Construction](#). EPG involves the use of a lightweight, rigid foam plastic in place of traditional embankment or backfill materials. It is much lighter than traditional materials and can be used to reduce ground settlement, ground instability, or lateral pressures exerted by the fill.



What are the benefits?

- **Accelerates foundation construction**, which **reduces project timelines, saves money**, and **requires limited labor** for construction
- Exerts **little to no lateral load on retaining structures**, and can be **constructed easily in limited right-of-way areas** and in adverse weather conditions.
- In colder climates, EPG **helps prevent differential icing**, due to its inherent insulation properties.

How does it work?

EPG can be used for slope stabilization, retaining wall backfill, road embankments, and pavement insulation. The foam blocks are stacked up to the desired elevation and then covered in a geomembrane material before being topped with asphalt or concrete.



How do I learn more?

To learn about the STIC, visit <http://www.penndot.gov/stic> or email penndotstic@pa.gov.