The Power of Polyurethane Foam

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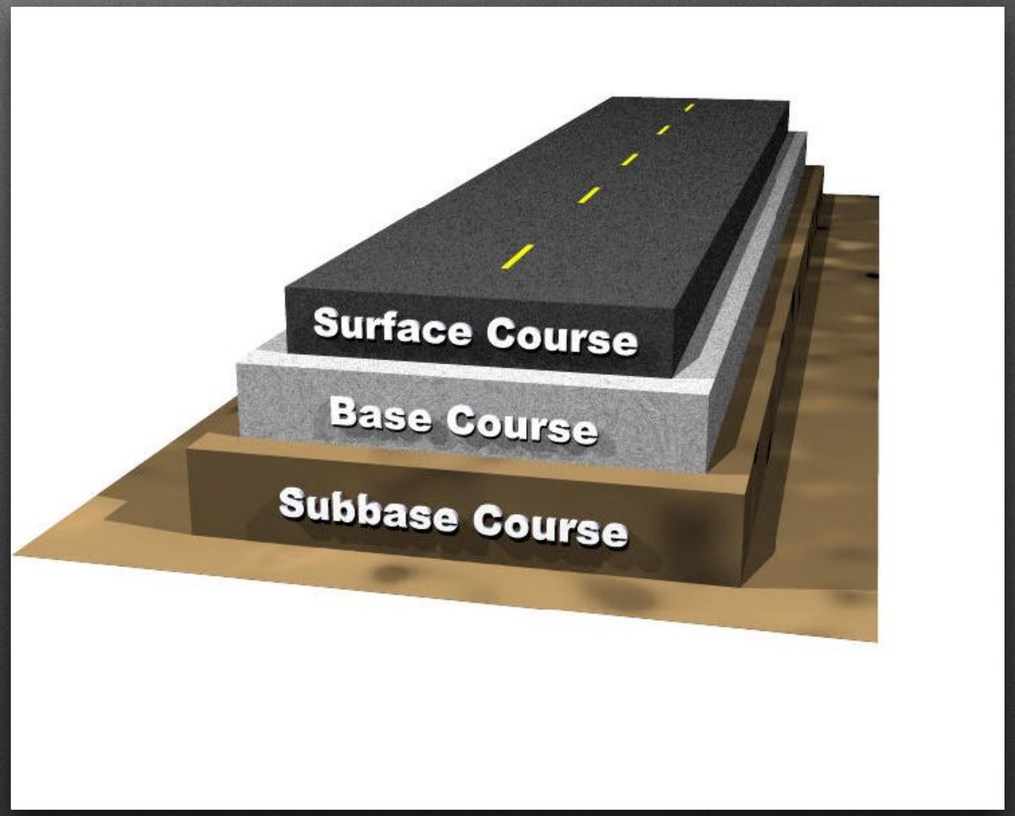
What is Polyurethane Foam?

Polyurethane foam is an expanding foam that adds support and stability to soil. It is a closed-cell formula, made up of Polyol and isocyanate. There are many uses for Polyurethane foam such as road repair, leaking manholes, highways, culverts, and bridges.

Polyurethane foam is a high-density foam, meant to be pumped into areas to add support. The foam is injected into the base material, it then binds the soil strengthening the base.

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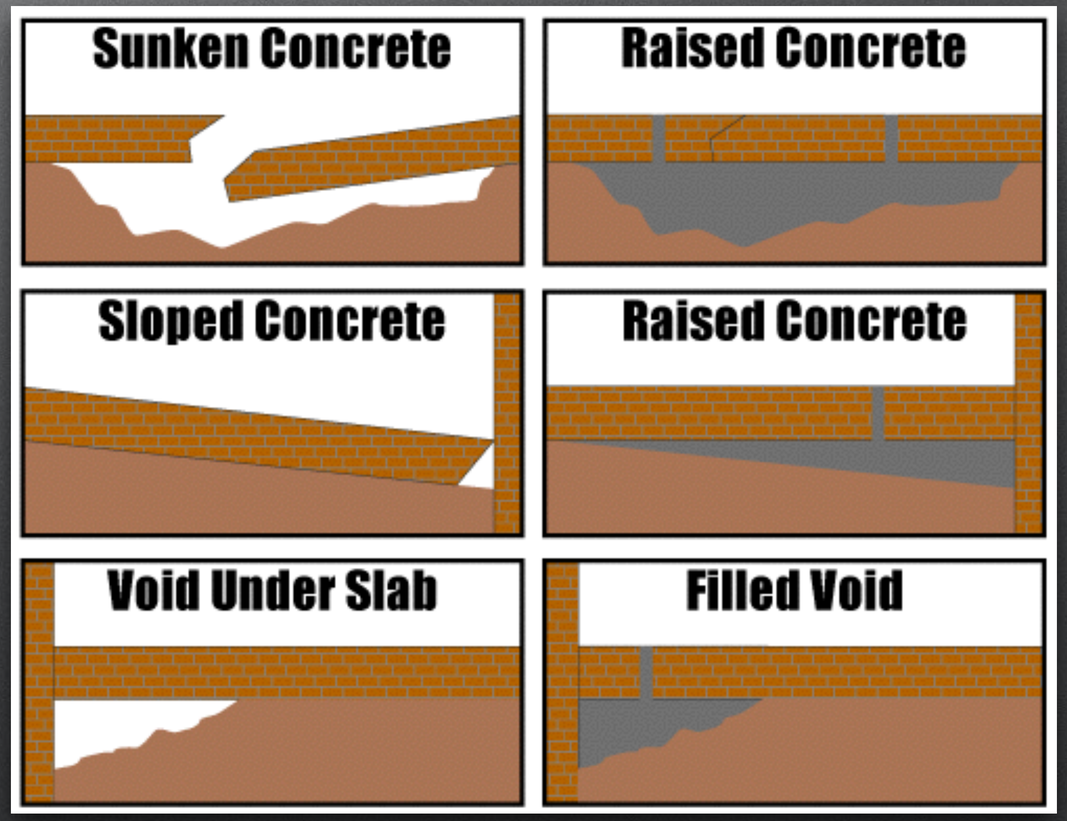
How does Polyurethane work?

Raising concrete with polyurethane foam is done with incremental injections. We drill 5/8” hole into the concrete, a tapered delivery port is inserted into the hole, then the injection gun delivers the polyurethane foam into the base or sub-base. The foam then expands into any voids, lifting the concrete to the desired height. Poly Foam fully expands within seconds, more can be added if it does not reach the height required. Polyurethane Foam works for voids and stabilization.

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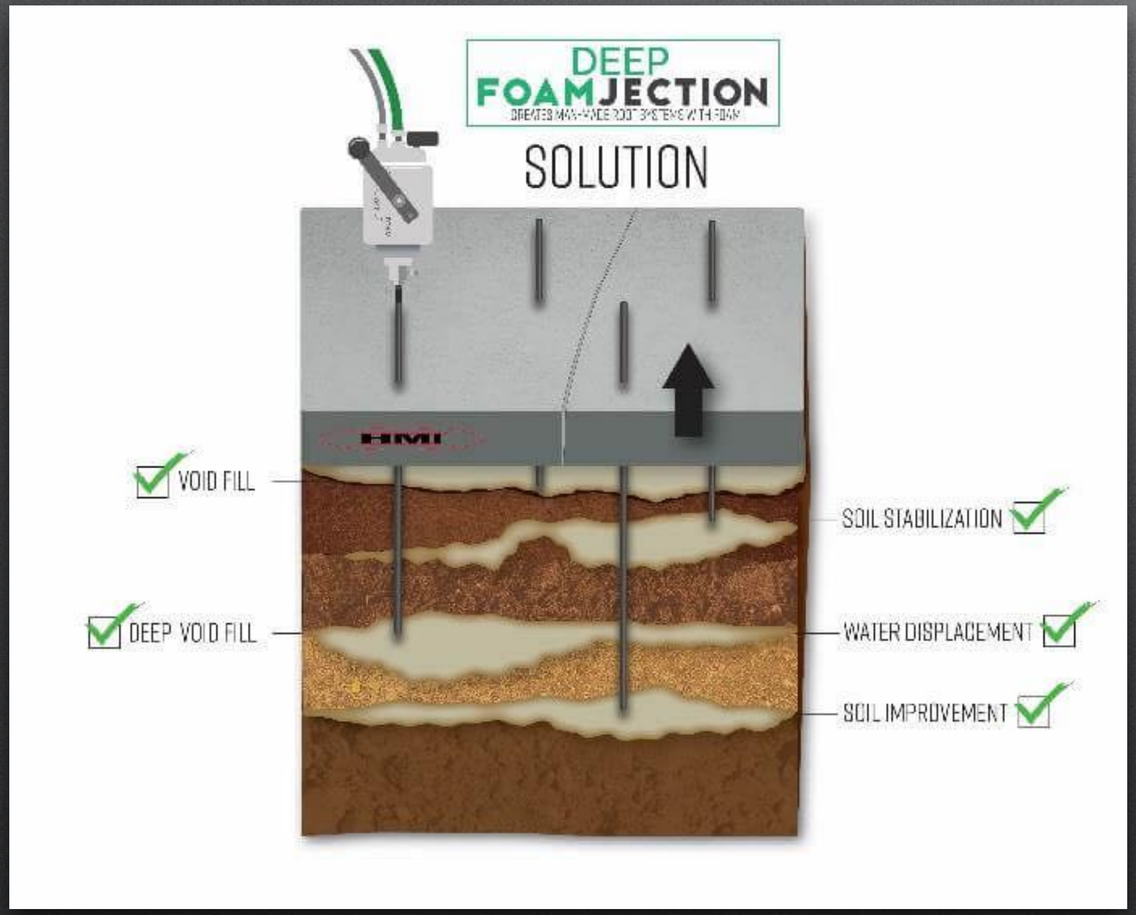
Deep Foamjection



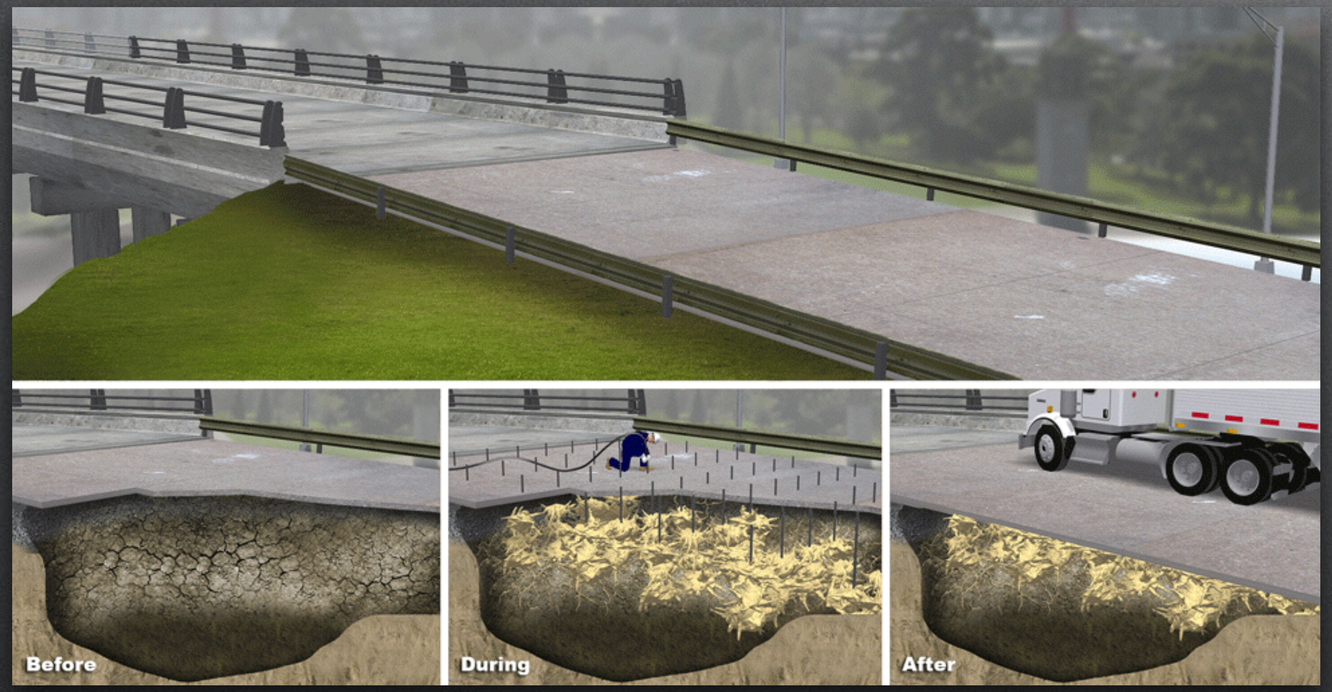
Deep Foamjection can be used for a variety of reasons such as structure settlement, highways, bridges, equipment pads, and retaining walls.

Deep foamjection is the process of injecting a 2 part polyurethane solution into failed soil. Injected as a liquid, the foam expands into weak soils. The expansion takes the least resistant route. This expansion fills voids and loose/weak soil, resembling a tree root system when complete. This volume of expanded foam increases the density and strength of the soils that failed as well as adding a solid custom installed volume of foam.

Eco uses a tool called a DCP (Dynamic Cone Penetrometer). This tool allows us to read the size of the affected areas, along with the filled areas after completion.

Pump Station Project

Ground Stabilization



Ground stabilization has a large impact on our structures and roadways. Unstable soil can be defined as soil that will not stay in place on its own. This can be caused by erosion, poor compaction, freeze/thaw cycles, excess water, and decomposition. Traditional methods of road repair can provide a temporary solution, but it doesn't get to the root of the problem. In addition the increased weight can add access stress, to already unstable soil.

Bumpy/uneven roads or driveways are a good indicator that the soil might be unstable.

Gravel Road Project

Introduction to FillFoam

FillFoam is a pre-expanded open/closed resin blown cell foam formula with ideal characteristics for any void filling applications. Pumped at full volume, FillFoam does not lose volume when pumped in confinement. FillFoam is an organic material that is resin blown. It is nitrogen-rich and is harmless to the environment. It is lightweight, durable, solvent-free, non-toxic and inert, non-flammable, and rot-resistance to both fresh and saltwater.

Benefits of FillFoam

- No heat is created during installation
- Safe to install at any quantity and rate
- Can absorb water from overburdened soils
- Immune to seasonal changes
- Hydro-Insensitive / UV-Insensitive
- Lightweight and strong
- FillFoam can be re-excavated if necessary

Common uses for FillFoam

- Void filling
- Trench fill
- Culverts
- Wells
- Abandoned wells
- Foundation backfill
- Abandoned mines and shafts
- Abandoned tunnels
- Abandoned tanks
- Abandoned Pipes
- Sinkholes

About Eco Concrete Levelling

Eco Concrete Levelling Ltd. is a Saskatchewan-based privately owned company. Eco strives to provide the best operators, products, techniques, and the latest technologies in an ever-demanding business. Whether you are having problems with a failing concrete slab or a busy highway, Eco can help.

Eco Concrete Levelling Ltd. is National Core Certified, WCB compliant, and FoamJection Certified.

For more information or to schedule a quote, please call or email Curtis at (306) 305 - 9144
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