

EZflow/EZ-Drain

Frequently Asked Questions

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What are the differences between EZflow and EZ-Drain

The performance of each bead should be similar; the Transmissivity (flow through the system) will be similar, which will be one or two orders of magnitude greater than the native soils. EZ-Drain bead is smaller due to manufacturing considerations. EZ-Drain is available in smaller diameter bundles and the smaller bead assembles better. "EZflow" will be used throughout this document to describe both products.

Can EZflow withstand the weight of a vehicle?

EZflow drainage systems are designed for use in residential and light commercial non-traffic applications. EZflow drainage systems are designed to withstand single pass construction wheel loading and occasional light vehicular load of up to 16,000 lbs per axle provided the product is installed in a trench with 12" of compacted fill placed over the bundles. EZflow drainage systems are not designed to be placed under live-load traffic conditions such as paved or non-paved roadways, driveways, or parking areas.

Can I cut EZflow?

Yes, simply maneuver the aggregate to either side of your cut, use two long zip ties to tourniquet the area to be cut and proceed with the cut.

Does EZflow Poly-Rock absorb water?

EZflow's Poly-Rock is an engineered aggregate that consists of hardened expandable polystyrene, an inert compound. Polystyrene does not absorb water, nor break down in water or other aqueous solutions.

Does EZflow qualify projects for LEED Credits?

Yes, EZflow can contribute to the accumulation of LEED credits for a project when used as part of the Stormwater design, or by contributing to the proportion of recycled materials used on site.

How deep should EZflow be buried?

EZflow must be covered with a minimum of 6" of soil. The maximum depth to bury EZflow is 10 ft of soil. Please contact NDS Technical Services for depths exceeding 10 ft.

How do I connect EZflow?

The bundles are fabricated with corrugated polyethylene internal piping. Pipe sizes are available in 3", 4" or 6" diameters. The EZflow couplers or commercially available fittings are used to allow other pipe types or sizes to be connected very easily. Internal coupling connections for all fittings are optimal.

How does water get to it in clay soil?

Most clay soils are permeable, although at a significantly lower rate than granular soils. The ability of a subsurface drain to drain clay soils is a function of the clay soil's permeability – i.e. the ability of the soil to transmit water to the drainage trench. Groundwater interceptor drains can work in these soils if designed properly. Groundwater interceptor drains in low permeable soil applications require a minimum of 4" of suitable fill material, course sand, placed above the drainage bundle and brought to grade. This can also be achieved with minimum of 2" of an overlying permeable strata, such as a low clay topsoil, mulch or decorative landscape stones over a minimum of 2" of course sand (see drawing). The interceptor drain should daylight to prevent saturation of the surrounding clay soils and to prevent the drain system from "bath tubbing."

How much aggregate needs to go above the product and below concrete in a basement?

A minimum of 2" of sand or pea gravel should be placed above the drainage bundle to provide a suitable base for the concrete. The basement drain lines should daylight to a sump or some other form of discharge. Note; this is only for non-load bearing applications.

How thick is the geotextile mesh?

The mesh is not typically measured by its thickness but rather its unit weight as measured in ounces per square yard. ASTM D-3776 is a standardized test for measuring the weight. The unit weight of the geotextile mesh is 2.5 – 3.5 oz/sq. yd.

Is EZflow made of recycled material (LEED)?

The EZflow™ Poly-Rock aggregate is made of 100% recycled resins. The product (aggregate, mesh and pipe) together would constitute a 90% percent minimum recycled content by weight (mass).

The EZflow aggregate is manufactured from 100% recycled content. Is the pipe also recycled?

The pipe typically has a recycled content greater than 90%.

Can EZflow withstand the freeze-thaw cycle of cold weather climates?

The polystyrene aggregate will tolerate extreme temperature ranges, and has a continuous use temperature range of -108°F to +175°F. It does not become brittle at subzero temperatures and does not need to be buried any deeper than for an installation in any other temperature range.

What is the AOS (apparent opening size) of the geotextile?

The AOS is a 30 U.S. Sieve (0.60 mm) for the geotextile mesh for the 7, 8, 10 and 15" products. There are previously published specifications that stated the 15" bundle mesh used was 70 U.S. Sieve. This is inaccurate and needs to be revised. All EZflow products are manufactured using a 30 U.S. Sieve geotextile mesh.

What is the mass of recycled product in an EZflow section?

The product (aggregate, mesh and pipe) together would constitute a 90% percent minimum recycled content by weight (mass).

What is the minimum bend radius for each size?

A basic rule of thumb is any 10' section of any of the diameters can make a 180 degree radius (half circle). The pipe is the limiting factor in the product's ability to contour. Any aggregate only bundle is capable of making very sharp bends such as 90 degree corners. The pipe bundles will require internal connection fittings to make bends of greater than 45 degrees.

What is the Poly-Rock aggregate material?

The EZ-Drain aggregate bead (Poly-Rock) is manufactured with expanded polystyrene.

What is the weight per foot / 10' length?

Note the following individual weights (per stick/section of EZflow or EZ-Drain):

- 7" agg – 2 lbs
- 7" pipe – 3.6 lbs
- 8" agg – 2.2 lbs
- 8" pipe – 4.9 lbs
- 10" agg – 2.7 lbs
- 10" pipe – 5.9 lbs
- 15" agg – 6.2 lbs
- 15" pipe – 13.0 lbs

Where is the point of manufacture (LEED)?

EZflow is manufactured in 6 locations:

- Monticello, IL
- St. Augustine, FL
- Brevard, NC
- Garner, NC
- Portland, OR
- Duncanville, TX

Will rodents be attracted to this product?

Similar to mineral aggregate expanded polystyrene offers no nutritional value for insects or rodents and is therefore not suitable environment for them. For this reason EPS has been widely used in building applications, inclusive of subsurface installations.

Will Root intrusion be a significant factor?

Root intrusion should be no more of a significant factor than in any other type of drainage system. The same "best design practices" should be employed for EZflow that are applied on other types of drainage systems. If roots are a concern then commercially available root inhibitors are available (by others).