

AdvanEdge[®] Drain Pipe

AdvanEdge drain pipe provides the dimensional stability and field-proven structural strength for quick, effective subsurface drainage. The distinguishing performance feature of panel pipe is its ability to rapidly collect and remove water. Compared to 4" (100 mm) round pipe at an equal length of 12" (300 mm), panel pipe has twice the soil contact area and will drain a given quantity of water in 60% of the time.

AdvanEdge is a perforated panel-shaped plastic core pipe available with either geotextile for soil filtration or without geotextile. AdvanEdge is truly a pipe. It is not round, of course, but its panel-shaped core fully encloses the waterway. Lateral pillars maintain the core opening, resulting in a series of oval-shaped channels providing superior strength and relatively few projections into the waterway. The slim 1.5" (38 mm) profile permits a narrow trench and faster installation. The design of the invert permits significantly higher flow velocity at lower head.

Applications

- Highway edge drains
- Athletic turf drainage
- Building foundations and retaining walls
- Waste management curtain drains

Features

- 12" (300 mm) oblong diameter
- 100' (30 m) length available
- Fast installation times
- Manufactured from high-density polyethylene resin, which provides long-term durability

Benefits

- Can be installed vertically in narrow trenches or flat directly on a prepared subgrade
- Invert design permits significantly higher flow velocity at lower head
- Structural superiority confirmed by state field performance tests of edge drains



AdvanEdge Pipe Specifications

Scope

This specification describes 12" (300 mm) AdvanEdge oblong corrugated pipe for use in subsurface drainage applications.

Product Requirements

AdvanEdge shall have annular interior and exterior corrugations:

- 12" (300 mm) pipe shall meet ASTM D7001

AdvanEdge outside dimensions shall be 1.5" (38 mm) thick by 12.5" (317 mm) wide. AdvanEdge shall have internal bracing adjoining each long wall to prevent crushing under typical loading. AdvanEdge shall be made available with or without an external geotextile wrap. When geotextile is provided, product shall meet the requirements of Class B Geocomposite as defined in ASTM D7001.

Material Properties

All pipe and fittings shall be made of polyethylene with a minimum cell classification of 424420C as defined and described in ASTM D3350.

AdvanEdge Perforations

Nominal Pipe Size in (mm)	12 (300)
Slot Length Average in (mm)	1.125 (29)
Slot Width Average in (mm)	0.125 (3.2)
Water Inlet Area (approximate) in ² /ft (cm ² /m)	15 (318)

AdvanEdge Geotextile Wrap

Fabric Properties	Test Method	Minimum Average Roll Values
Grab Tensile Strength lbs (kg)*	ASTM D4632	112 (51)
Grab Elongation %*	ASTM D4632	50
Trapezoidal Tear lbs (kg)*	ASTM D4533	40 (18)
Puncture lbs (kg)	ASTM D4833	40 (18)
Permittivity (sec ⁻¹)	ASTM D4491	0.5
AOS U.S. Sieve Size (mm)	ASTM D4751	60 (0.25)
UV Resistance	ASTM D4355	50

* Weakest principle direction

