HYDRAVENT

SECTION 02639 SUB-SURFACE VENTING
PART 1: GENERAL

1.01 RELATED WORK

Review Contract Documents for requirements that affect work of this section. Specification sections that directly relate to work of this section include, but are not limited to:

Section 02315 - Excavation & Backfill

Section 02630 - Storm Venting Pipe

SYSTEM DESCRIPTION

The subsurface vent system should consist of the Hydravent™ geocomposite vent and outlet pipes of the type, size and dimensions in accordance with these specifications and project plans, or as directed by the project engineer. The vent consists of a geotextile filter fabric heat fusion bonded to an internal high density polyethylene (HDPE) core. The vent should be lightweight, flexible, have minimal "memory" when placed in horizontal position and sufficiently durable to withstand automated and/or manual installation procedures.

PART 2: PRODUCTS

2.01 GEOCOMPOSITE SUBSURFACE VENTING SYSTEM
ACCEPTABLE MANUFACTURERS

SUBSURFACE VENTING:

Hydravent manufactured by: Intech Anchoring Systems, Caseyville, IL 62232

Telephone: 800-223-7015 Fax: 618-398-5722, Email: info@intechanchoring.com

COMPONENTS

The vent consists of a geotextile filter fabric heat fusion bonded to an internal high density polyethylene (HDPE) core. The vent should be lightweight, flexible, and sufficiently durable to withstand automated and/or manual installation procedures.

See Exhibit A on detail of construction of the vent.

1. Core: High Density Polyethylene (HDPE)
   a. Length: 150 to 550 feet
   b. Widths: 6, 12, 18 or 24 inches
   c. Depth: 1" minimum
2. Geotextile Fabric: Tencate - Mirafi® 140N
   a. 4.5 ounce minimum
   b. Heat fusion bonded to the core
3. Accessories:
   a. Couplers, ends, outlets adapters as required and recommended by the manufacturer.
4. Geocomposite subsurface vent system shall meet the following ASTM standards as a minimum.

ASTM STANDARDS
CORE:

ASTM D-1621 Standard Test Methods for Compressive Properties of Rigid Cellular Plastics

ASTM D-4716 Standard Method for Constant Head Hydraulic Flow Transmissivity (in-plane flow) of Geotextiles and Geotextile Related Products

ASTM D-1876 Standard Test Method for Peel Resistance of Adhesives (T-Peel Test)

TABLE 1 – CORE MATERIAL REQUIREMENTS

PRODUCT	AVERAGE TEST VALUE	ASTM TEST METHOD
Compressive Strength at maximum deflection of 20%	11,400 lbs/ft^2	D1621
Flow Rate at 10 psi and gradient of 0.1	21 gpm/ft width	D4716
Peel Strength (Fabric to Core)	50 lbs/ft width	D1876

GEOTEXTILE FABRIC (4.5 oz Tencate-Mirafi® 140N):

ASTM D-4632 Standard Test Method for Grab Breaking Load and Elongation of Textiles

ASTM D-4491 Standard Test Method for Water Permeability of Geotextiles by Permittivity

ASTM D-4751 Standard Test Method for Determining Apparent Opening Size of a Geotextile

TABLE 2 – GEOTEXTILE FABRIC REQUIREMENTS

PRODUCT	AVERAGE TEST VALUE	ASTM TEST METHOD
Elongation	50 %	D4632
Grab Tensile	120 lbs	D4632
Permeability	135 gal/min/ft^2	D4491
Apparent Opening Size	70 U.S. Std. Sieve	D4751

PART 3: EXECUTION

3.03 INSTALLATION / QUALITY ASSURANCE

1. INSTALLATION EQUIPMENT

All equipment necessary and required for the proper construction of the vent system should be in working condition and approved by the engineer.

2. SHIPPING AND STORAGE

The Hydravent is packaged and shipped in an opaque wrap that protects the material from dust and ultraviolet light. The manufacturer recommends that the material remain wrapped or protected from exposure to ultraviolet light and from contamination until it is installed. Hydravent shall be protected from temperatures greater than 140°F.

Each roll, or shipping unit, of vent shall be marked with a tag, or other identification label showing the product type and number and the date of manufacture.

END OF SECTION