AirDrain – What drains better than Air?

For K9 Areas: Pet Playgrounds, Dog Runs, Kennels and More.....

AirDrain is a proven success! With over 500+ K9 areas installed, AirDrain K9 Drainage by AirField Systems is the ideal synthetic drainage system used in dog day care facilities, pet playgrounds, airport dog potties and general use common areas for dogs all across America.

AirDrain is made with the highest quality 100% postindustrial recycled content. Due to 92% air void underneath the turf, unwanted waste can be washed away quickly by using an easily installed flushing system. This flushing system attaches to any water source and uses inexpensive PVC piping around the perimeter of the grid. Low cost, easy to install, do it yourself drainage makes AirDrain the ideal synthetic drainage system for kennels, dog boarding, pet facilities, dog parks, vet clinics, and even in your own backyard.

K9 areas are installed every day in public and private facilities across the world. Whether you utilize natural or artificial turf, the AirField System is a stress-free way to turn any common space into a fun place for people and their K9 friends. No more worrying about expensive and destructive gravel drainage and no problems with waste being left behind. An AirField System is the easiest and fastest way to install a K9 recreation area.

![Diagram of AirDrain K9 area]

**Synthetic Turf**
Designed for Pet usage

**AirDrain Geocell**
Lifting the turf off of the base
to allow for drainage and air flow

**Subbase**
Concrete, Asphalt, Sealed
Rooftop or Compacted Aggregate

**Benefits of an AirDrain K9 area include:**

- 100% post industrial recycled content
- 92% air-void for fast and easy waste removal
- Ability to flush the area daily
- AirDrain’s quick snap connectors allows for effortless installation
- Minimal site disturbance, far less excavation and disposal
- Compact shipping reducing transportation costs

*This drawing, specifications and the information contained herein is for general presentation purposes only. All final drawings and layouts should be determined by a licensed engineer(s). HIC & Gmax testing are measured in a lab setting and are not site specific.*
Pet Areas and Dog Runs

**Synthetic Turf**
Short, dense synthetic turf for easy cleaning and durability

**AirDrain™ Geocell**
Elevates grass and creates a 92% air void which provides for 100% vertical drainage and ability to setup flushing system

**Subbase**
Concrete, Asphalt, Sealed Rooftop or Compacted Aggregate

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Pet Areas and Dog Runs

Synthetic Grass Surface

Perimeter nailing board attached to Subbase

Subbase
Concrete, Asphalt, Sealed
Rooftop or Compacted Aggregate

AirDrain™

AirDrain™ Unit Panel Specifications:
Size: 32" x 32" x 1"
Weight: 3.1 lb
Strength: 233 psi (unfilled)
Resin: 100% Recycled (PIR) Copolymer with Impact Modifier "No Break" Polymer Material
Color: Black (3% carbon black added for UV Protection)

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Pet Areas and Dog Runs on Rooftop

- Synthetic Grass Surface
- Geotextile Filter Fabric (optional)
- Roof Surface and Waterproofing per Architect/Engineer specifications
- AirDrain™
- Geotextile Filter Fabric or other protection layer per Architect/Engineer
- Perimeter nailer board

AirDrain™ Unit Panel Specifications:
- Size: 32" x 32" x 1"
- Weight: 3.1 lb
- Strength: 233 psi (unfilled)
- Resin: 100% Recycled (PIR) Copolymer with Impact Modifier "No Break" Polymer Material
- Color: Black (3% carbon black added for UV Protection)
Unit Panel Specifications:

Size: 32" x 32" x 1"
Weight: 3.1 lb
Strength: 233 psi (unfilled)
Resin: 100% Recycled (PIR)
Copolymer with Impact Modifier
"No Break" Polymer Material
Color: Black
(3% carbon black added for UV Protection)
## General Information

**Construction**
Injection Molded Copolymer

**Composition**
Copolymer Polypropylene Using an Impact Modifier

**Dimensions**
31.784” x 31.880” x 1.000” (7.03 sq ft.)

**Unit Weight**
3.1 lbs.

**Material**
Resin Pellets

## Shipping

<table>
<thead>
<tr>
<th>Parts Per Pallet</th>
<th>114</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pallet Dimensions</td>
<td>33” x 33” x 48”</td>
</tr>
<tr>
<td>Pallet Weight</td>
<td>390 lbs.</td>
</tr>
<tr>
<td>Area Coverage Per Pallet</td>
<td>798 sq. ft.</td>
</tr>
<tr>
<td>Pallets Per Trailer</td>
<td>114 (3 wide x 2 tall x 19 deep)</td>
</tr>
<tr>
<td>Area Covered Per Trailer</td>
<td>90,972 sq. ft.</td>
</tr>
</tbody>
</table>

## ASTM and ISO Properties

### Physical

<table>
<thead>
<tr>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity</td>
<td>0.940</td>
</tr>
<tr>
<td>Melt Mass-Flow Rate (230°C/2.16 kg)</td>
<td>20 g/10 min</td>
</tr>
</tbody>
</table>

### Mechanical

<table>
<thead>
<tr>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>57.490 lb/ft³</td>
</tr>
<tr>
<td>Tensile Strength (Yield, 73°F)</td>
<td>2,145 psi</td>
</tr>
<tr>
<td>Tensile Elongation (Yield, 73°F)</td>
<td>16%</td>
</tr>
<tr>
<td>Flexural Modulus (73°F)</td>
<td>100,175 psi</td>
</tr>
</tbody>
</table>

**Compression Strength (73°F)**
233 psi unfilled ± 1% ASTM D6254

### Impact

Notched Izod Impact (73°F, 0.125 in) ASTM D256

### Thermal

Deflection Temperature Under Load 264 psi, Unannealed 160°F ± 10°F ASTM D648

## Expansion/Contraction Index

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Humidity</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>100°F</td>
<td>98%</td>
<td>31.881”</td>
<td>31.817”</td>
</tr>
<tr>
<td>-5°F</td>
<td>0%</td>
<td>31.765”</td>
<td>31.713”</td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td>.116”</td>
<td>.104”</td>
</tr>
<tr>
<td>Joint Expansion/Contraction Capacity</td>
<td>0.420”</td>
<td>0.572”</td>
<td></td>
</tr>
<tr>
<td>Safety Factor</td>
<td>362%</td>
<td>550%</td>
<td></td>
</tr>
</tbody>
</table>

## Examples of Usage

<table>
<thead>
<tr>
<th>Application</th>
<th>Required Strength</th>
<th>Safety Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>40 psi</td>
<td>x 168</td>
</tr>
<tr>
<td>Truck</td>
<td>110 psi</td>
<td>x 61</td>
</tr>
</tbody>
</table>

1 Independent laboratory testing conducted by TRI/Environmental, Inc., TSI/Testing Services, Inc. and Wassenaar.
Proper Sequencing and Orientation of AirDrain GeoCell Panels for Rapid Installation

Pallet Staging: AirDrain pallets cover approximately 798sqft. per pallet and should be staged accordingly within the installation area so that you minimize the amount of time to stage the AirDrain grid along the install lines across the project. Typically placing the AirDrain every 65 feet across and 15-20 feet back from each other. (Call AirField with questions that you might have about proper staging and installation.)

All Installations must start in the Top Left Corner of the Field and work Left to Right to be installed properly.

1. Orientate the AirDrain GeoCell materials with the integral indicator tab to the panel's bottom left corner (painted yellow). Install the AirDrain units by placing units with the connectors and platforms up creating a flat surface for the profile above. If the male connectors do not fall or drop into the female connectors then the orientation is incorrect, please call AirField Systems Immediately at 405-359-3775.
2. Install the AirDrain panels across the field in a rowed pattern. Staggering of rows will allow for multiple row completion by a multi-manned crew.

3. Once the first row has progressed across the project, start with a second row. Have a person staging the panels in groups of three snapped together along the row. The crew can then install the left side of the panel while elevating slightly the top portion (so the male and female connectors don't touch each other). Once the left side has been snapped with a pull along the row direction, the top portion should fall into place and with a bottom vertical pull holding the inside of parts 1 & 3 snap all three parts in place.

4. AirDrain panels can be shaped to individual field areas as needed with appropriate cutting device. If a typical field is installed correctly there should only be two sides that would need to be trimmed.

   A. If only a few parts need to be trimmed, use tin snips.

   B. If many parts require trimming, set up a table and use a circular saw with a no melt, plastic cutting saw blade.

Visit [AirField Systems Flickr page](#) to watch a video of a 74,000 sq ft project for Chesapeake Energy illustrating a 3 man crew installation.

DISCLAIMER: The preceding and following drawings and/or general installation guidelines are provided only to show a concept design for installation and are not instructions for any particular installation. These drawings and general instructions are not complete and are provided only to assist a licensed Geo-Technical Engineer, a Landscape Architect and/or Civil Engineer in preparing actual construction and installation plans. These drawings and instructions must be reviewed by a licensed Geo-Technical Engineer, a Landscape Architect and/or Civil Engineer and adapted to the condition of a particular installation site and to comply with all state and local requirements for each installation site. THESE DRAWINGS AND/OR GENERAL INSTRUCTIONS DO NOT MODIFY OR SUPPLEMENT ANY EXPRESS OR IMPLIED WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IF APPLICABLE RELATING TO THE PRODUCT. 6.20.14