

# HYDRAWAY DRAINAGE SYSTEMS

For Natural and Synthetic Turf Applications



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## HYDRAWAY STRENGTH & QUALITY

66 When it was decided to rebuild our field, Hydraway drainage system was a great alternative that was brought to our attention. It was convenient for retrofitting the field along with its high inflow rate and its compressive strength during construction. The 12" Hydraway lines on 15' centers are able to dewater the surface fast enough for our team to play.

On August 21, 2009 at 3:00 PM, an afternoon thunderstorm arose over the ballpark. By 3:30 PM the only things visible on the field were the infield tarp and the bullpen tarps. By 3:45pm the stadium had received 3.17" of rain. With help of our front office staff to dump the tarp, the Zephyrs were playing by 7:30 PM with compliments from the Pacific Coast League and its umpires.

Thomas Marks, Head Grounds Keeper



#### PHYSICAL PROPERTIES

| Product                    | Test Method  | Typical Value                            |
|----------------------------|--|--|
| Compressive Strength       | ASTM D695/1621   | 11,400 PSF                               |
| Flow Rate at 1500 PSF      | ASTM D4716 <sub>1</sub>                                | 21 GPM/FtWidth                           |
| Peel Strength <sub>2</sub> | ASTM D1876   | 35 lbs./FtWidth                          |
| High Density Polyethylene  | (HDPE)   |  |
| Fabric (4.5 oz.)           |  |  |
| Elongation                 | AASTM D4632  | 50%                                      |
| Grab Tensile               | ASTM D4632   | 120 lbs                                  |
| Flow Rate                  | ASTM D4491   | 135 gal/min/ft <sup>2</sup> <sub>3</sub> |
| <b>Roll Dimensions</b>     |  |  |
| Width                      | 6", 12", 18", 24" - Other sizes available upon request |  |
| Length                     | 150' - up to 550' upon request                         |  |

1 - Gradient of 0.1

2 - Fabric to core (minimum average value)

3 - Values shown are weaker in principal direction. Minimum average roll values are calculated as the typical minus two standard deviations.

Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.



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#### STRENGTH

Hydraway is made of a heavy duty, clog resistant geotextile fabric, heat fusion bonded to a rugged High Density Polyethylene (HDPE) core for strength and support.

The specially engineered design permits high flow rates for rapid dewatering of the turf area while effectively preventing passage of soil particles.

#### QUALITY

Specified in both natural and synthetic sports field applications.

Hydraway allows water to enter on all sides for rapid dispersal of excess surface water & eliminates standing water.

Hydraway allows for water penetration of up to 70% per linear foot (traditional pipe only allows 3-5% due to the small opening sizes in the pipe).

Highest Compressive strength at 11,400 PSF.

Versatile system suitable not only for sports turf, but a wide variety of amenity uses.

Thousands of successful installations throughout the world, from the high school level to professional.

Proven performance since 1983.

#### MINIMAL DISRUPTION

Minimal disruption for any application, whether installed by hand or machine.

### INDUSTRY'S MOST RELIABLE DRAINAGE SYSTEM

As one of the longest running and most prevalent synthetic turf designers in the Chicago area, we are familiar with all brands of flatdrains. In addition, we also utilize flatdrains for natural grass drainage. We are very impressed with the Hydraway product line for both synthetic turf and natural grass drainage applications. We have found it to possess much better drainage parameters AND to be much more economical than other flatdrain products.

> Jason E. Green, PE W-T Engineering, Inc.

66 The high in-flow and high compressive strengths make Hydraway the ideal drainage solution. This quality product backed by superior customer service makes it easy to give Hydraway Drainage Systems our repeat business.

> Dave Stein Munie Greencare Professionals

66 The reason we use Hydraway 2000 can be summed up in two in words, strength and permeability. When we use Hydraway 2000 under our fields, we know that we are using a material that has superior compression strength combined with higher permeability and water flow rates than other products we have used in the past. 99

> Charles D. Morris, PE J.E.M. Morris Construction, INC.

When given a choice, because of proven reliability and superior customer service, we prefer to use Hydraway 2000 drainage systems in the construction of both our synthetic and natural turf athletic fields.

> Bobby Chamlee Eagle Golf and Athletics

For several years, we have specified Hydraway products as part of the subsurface drainage design under natural and synthetic athletic fields, utilizing both horizontal and vertical applications. We could not be more pleased with the high quality and performance of the products.

> Ed Norton, Landscape Architect Holcombe Norton Partners, Inc.

For my firm, it was great to use such a quality constructed and engineered product because the drainage system will be productive and long lasting. The high compressive strength and high inflow rate of the Hydraway product were two reasons that it was specified for this project.

Richard T. Moffitt Moffitt and Associates

In the summer of 2007, we were retained to design a new sub-surface drainage system for the LSU lady softball facility, Tiger Park. The system has performed as advertised since the day it was installed. I can recommend this product without hesitation. It performs as advertised and the Hydraway team provides quality products and excellent services to the design and installation professionals.

Roy T. Dufreche Landscape Architect Clark Companies has been installing subsurface drainage systems for many years on both natural and synthetic turf fields and has used all types of systems. Two years ago, we started using the Hydraway 2000 Subsurface Drainage System and were immediately impressed by the ease of installation and high compressive strength of the product. These features coupled with an unsurpassed industry water in-flow rate is why we continue to choose the Hydraway 2000 Subsurface Drainage System over the competition.

Scott Clark, President Clark Companies

