The Advantages of Hydrotact Linings, Mats, and Armor Units

Stability:
Hydrotact Fabric, manufactured by Synthetics LLC, have been used in millions of square feet of installation worldwide, works in the most severe conditions. In the process they have established a new benchmark in eruptions production by outperforming traditional concrete slope paving, gashes, present concrete blocks, and rip rap. Thousand of installations and extensive field testing have proved that Hydrotact Fabric-formed concrete erosion protection systems performs better than alternatives. Linings, Hydrotact, and Mats, with proven performance in excess of 100,000 psi (207 MPa), provide the high degree of stability needed to resist the stresses associated with high velocity flows. Hydrotact Fabric-bonded concrete has greater hydraulic effi-

ciency than rip rap, gashes, present concrete blocks, and conventional concrete slopes paving because of several factors: Faster installation cost. And less production of concrete and vexed pure para water pressure; reduce hydraulic uplift by dripping channel waterfalls, and control sand to continue to do pressure and also mean that the designer can affect the flow char-
acteristics of a channel, creating the opportunity for an "opti-
mized" hydraulic system. By choosing the correct style of form, low uplift force can be achieved, reducing downstream velocities and discharge turbulence. Or an hydraulic effi-
ciency, smooth form such as borders forms can be chosen to maximize resistance from a given area.

Adaptation to Soil Conditions:
Flexible-in-place forms accommodate uneven contours, curves, and subgrades of the type that they are filed. Consequently, the tools and the concrete portions are in in-

Human & Synthetic Linings and Mats do not require steel reinforcement or con-

siderable savings. A grill cage can handle the installation, and fabric forms can be installed without disturbing the wat-

easy Installation: Hydrotact Fabric forms delivered to the job site ready to-
need only be equipped with welding materials. Installation consists of placing the area, laying out the fabric forms, and then filling them with concrete through a small line concrete pipe. Most of the work being done is not required. The fabric forms themselves guarantee that the concrete assumes the correct patterns, conformations, dimensions, and tolerances. Linings and Mats and Mats do not require steel reinforcement or con-
eers' finishing. A small cage can handle the installation, and fabric forms can be installed without disturbing the wat-

Simple Job Mobilization:
Fabric forms are lightweight, so they can be rapid-

A new component in a fabric-formed system, the line aggregate concrete, is readily available from concrete supplies throughout. Once the fabric forms are in place, easy welding forms and concrete forms are all that is needed to fill the forms. And in areas with difficult or restricted access, the concrete can be delivered to the forms from as far away as 2500 feet (762 meters). Because of the low velocity and low turbulence to form the final concrete's shape as an area is formed at a very high flow (10%) aggregate mixture. Regardless of the job site, the use of adjustable ventilation and the restricted equipment and labor requirements mean that the job is in place to begin at least at the lowest cost per square unit of protected area.

Environmental Compatibility:
Fabric forms are designed to provide the local possible envi-

imental impact. The fabric used in the forms allows excess water to escape. However, the fabric must be firmly attached to the concrete, so that the wet concrete will not displace. In addition, the fabric forms are designed to prevent drainage of water to ensure that the fabric will stay in place. Sand, aggregates, and sand, El and EB Linings have been designed to provide defined areas that can be cut out for additional installations so that native vegetation can be planted or seed-
ed to create a more natural appearance. And Hydrotact Linings and Mats are lines of erosion control products that can provide additional vegetation, erosion, and flood control.

The Unmatched Linings, Mats, and Armor Units

Hydrotact Armor Units are the most durable concrete structure which replaces heavy rip rap and large present concrete structures. The Hydrotact Armor Units are installed in three to five days. After installation, difficult areas are covered and hydrostatic pressures are reduced. Linings, Hydrotact, and Mats do not require steel reinforcement or controls' finishing. A small cage can handle the installation, and fabric forms can be installed without disturbing the water flow after installation.

Artificially Light Mat forms (fabric and fabric) are made of a series of pre-compressed fiber mats. The mats are pre-compressed, and even light fabric units and concrete forms are as large as needed to fill the forms. And in areas with difficult or restricted access, the concrete can be delivered to the forms from as far away as 200 feet (60 meters). Because of the low velocity and low turbulence, the concrete forms can be formed in place, and the forms are not required to be removed. The fabric forms themselves guarantee that the concrete assumes the correct patterns, conformations, dimensions, and tolerances. Linings and Mats and Mats do not require steel reinforcement or controls' finishing. A small cage can handle the installation, and fabric forms can be installed without disturbing the water flow after installation.
Hydrotex™ Fabric-formed Concrete Erosion Control and Armoring Systems

Applications:
- Shoreline Dunes
- Channels and Canals
- Storms, Rivers, and Bayous
- Lakes and Reservoirs
- Coastal and Inlandshore Stormwater Mitigation
- Jetty and Diversion
- Beach Renourishment
- Sea walls and Breakwater Seawalls
- Flood Protection
- Ditch Linings
- Roadway Linings
- Utility Pipeline Covers
- Bridge Abutments and Piers
- Check Dams
- Dams and Spillways
- Ponds and Holding Basins
- Lagoon Caps
- Shore Dikes
- Water Control Structures

A Wide Range of Solutions

Hydrofab Fabrics are filled in place with the aggregate contents, allowing for the desired permanent formation of concrete without the costly and difficult labor-intensive process of a conventionally-formed concrete slope paving. Hydrotex systems are not only less expensive than rip rap, gabions, precast concrete blocks, or conventional two-layer concrete slope paving, but they also deliver significant stability and performance advantages over hydromats.

Hydrotex systems can:
- adjust to variable substrates, natural surface profiles, and uneven slopes
- reduce waves run-up, and
- reduce coastal erosion.

The result is a more cost-effective erosion control solution that restores hydraulic integrity, improves structural stability, and improves durability, stability, and performance.

Hydrotex Fabrics come in a variety of forms styles. Each style has been engineered to match a certain set of project parameters, allowing you to specify different forms to accommodate differing site conditions. Hydrotex Linings and Mats are used to create erosion and scour prevention systems ranging from ditch linings to coastal revetments. Hydrotex™ Armor units are monolithic concrete structures that are used for the construction of sea walls and other civil and marine applications.

Proven in the laboratory and in the field, Hydrofab products have been extensively evaluated in an advanced hydraulic laboratory at a leading research facility. Frame testing of Hydrofab Linings and Mats has derived proprietary design values that assist you in selecting the appropriate fabric form style and size per unit area to resist the expected hydraulic loading. Hydrofab products have proven their value, quality, and integrity in literally thousands of projects worldwide.

Backed with Technical Expertise

Synthetic team of technical manufacturing and field personnel work closely with engineers, owners, and contractors to derive the best design solutions. Our design philosophy diametrically opposes that of rigid performance, aesthetic, cost, and construction criteria. You are assured of quality materials, superior technical support, competitive prices, and a commitment to excellence. Our team is able to provide technical and design assistance, system specifications, cost estimates, and construction drawings.

Product Guide

Lines and Mats - Typical Installed Dimensions, Weights and Volume

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<tr>
<th>Filter Point</th>
<th>Filter Point Location</th>
<th>Filter Point Diameter</th>
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Hydrotex Lifelines, Mats, and Armor Units are filled in place by pumping the aggregate concrete into fabric forms. The results are reduced material and equipment costs, faster installation, and decorative erosion control services.

Whether you’re lining a channel protecting levee flood control system, underlining seacoast or dunes, repairing bridge abutments, or restoring a shoreline against storm damage, Synthetex LLC has the forms that meet your needs.

For complete specifications and our Construction and Quality Control Manual, please visit our web site at www.synthetex.com.