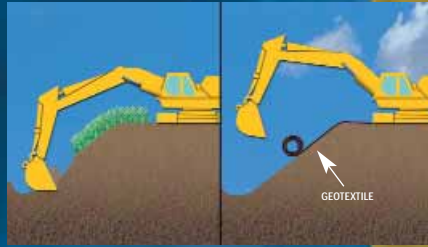


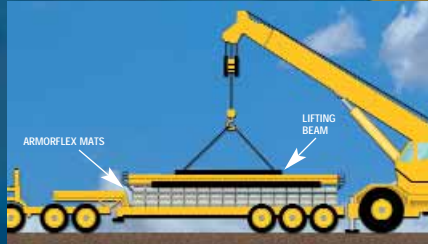
ARMORFLEX® INSTALLATION

ArmorFlex arrives on-site as a system of factory-assembled mats. ArmorFlex is placed on a site specific geotextile which has been placed on a prepared subgrade using conventional construction equipment.



SITE PREPARATION

Mats are supplied on 42-foot trailers, up to 1600 square feet per truck.



DELIVERY & UNLOADING

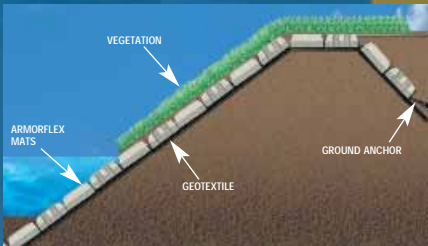
Mats can be handled with a spreader bar which is provided by Armortec with the initial load.

Permanent anchorage can be achieved by connecting the mat cables to patented anchors such as "Helix" or "Duckbill".



INSTALLING & LIFTING DEVICE

Mats subject to wave attack should be blinded with a sand/gravel mixture. Above normal waterline mats may be topsoiled and seeded to give a "green" effect.



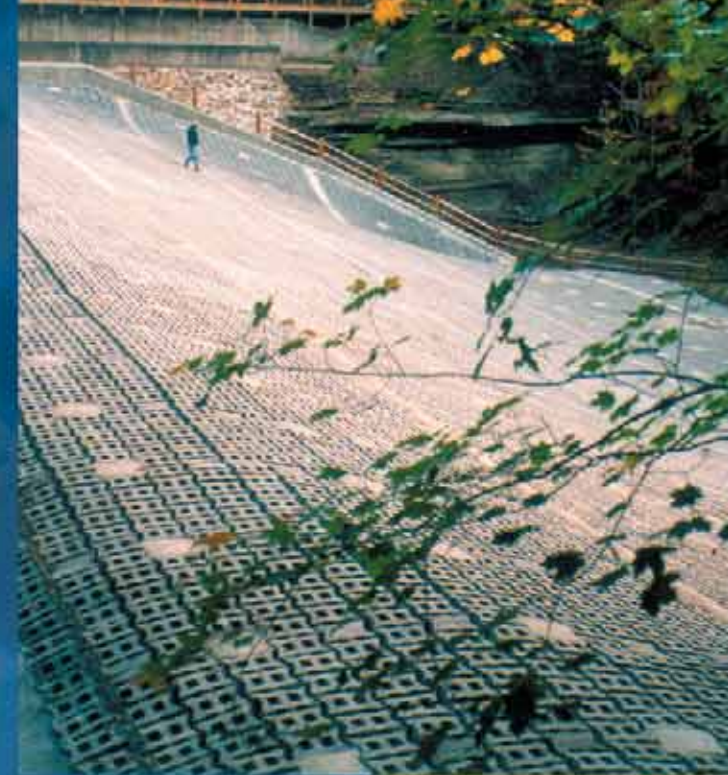
BACKFILL & VEGETATION

Proper toe trench requires a minimum of 2 rows of block buried below predicated soil depth.

Mats subject to wave attack are required to have a bedding layer of crushed stone or gravel.



ARMORFLEX®



ARTICULATING CONCRETE BLOCK REVETMENT SYSTEM

APPLICATIONS

- CHANNEL LINING • RIVERBANK PROTECTION
- DRAINAGE DITCH LINING • PIPELINE PROTECTION
- BOAT RAMPS • RESERVOIR SLOPE PROTECTION
- LAKE SHORELINE PROTECTION
- BRIDGE ABUTMENT PROTECTION
- DIKES AND LEVY PROTECTION
- DAM CRESTS AND SPILLWAYS
- WEIRS AND OVERFLOW CHANNELS

OTHER ARMORTEC® BROCHURES

- ARMORLOC • A-JACKS COASTAL
- A-JACKS STREAMBANK & SCOUR
- ARMORTEC MULTI-PRODUCT
- ARMORFLEX HAND PLACED • ARMORFLEX OS
- ARMORWEDGE



AUTHORIZED AGENT

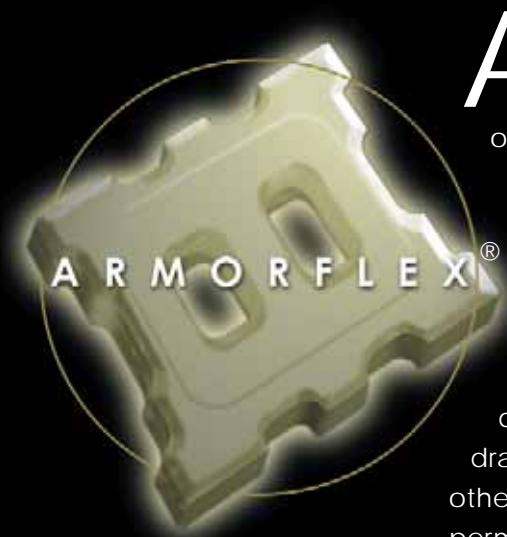
ARMORTEC is a subsidiary of



9025 Centre Pointe Drive
Suite 400
West Chester, OH 45069

Toll Free (866) 551-8325
www.contechess.com
www.armortecsoftware.com

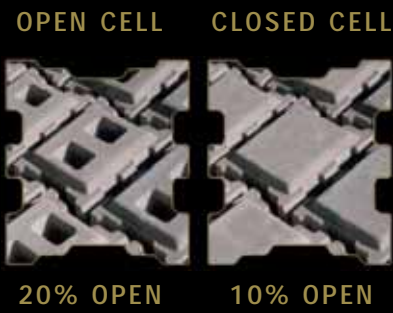




ArmorFlex is a flexible, interlocking matrix of concrete blocks of uniform size, shape and weight connected by a series of cables which pass longitudinally through preformed ducts in each block. ArmorFlex is installed over site specific filter fabric on a prepared surface. ArmorFlex revetment systems combine the favorable aspects of lightweight blankets and meshes, such as porosity, flexibility, vegetation encouragement and habitat enhancement with nonerrodible, self-weight and high tractive force resistance of a rigid lining.

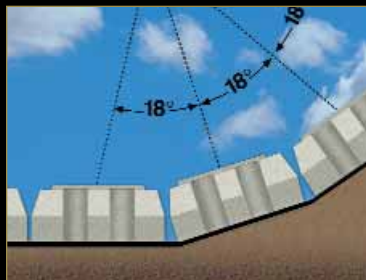
ArmorFlex has proven to be an aesthetic and functional alternative to dumped stone riprap, gabions, structural concrete and other heavy-duty, durable erosion protection systems. ArmorFlex is easy to install, therefore, can dramatically reduce overall project costs. More specifically, when compared to other systems, life-cycle costs have been reduced because ArmorFlex is a permanent system and saves on subsequent maintenance expenses.

BLOCK STYLES



When placed on a site specific filter fabric, the permeability of the revetment system relieves hydrostatic pressure in the subgrade. The system's capability for soil retention prevents leaching of subsoils throughout the installation.

FLEXIBILITY



ArmorFlex blocks are interconnected by flexible cables, providing articulation between adjacent blocks. Block walls are designed with beveled side walls to allow for flexibility in all directions.

FEATURES & BENEFITS

- STABILITY
- FLEXIBILITY
- PERFORMANCE
- COST-EFFECTIVE
- VEGETATION
- PERMEABILITY
- EASY TO INSTALL



ARMORFLEX® BLOCK SPECIFICATIONS

STANDARD CLASS
CONCRETE BLOCK
OPEN AREA 20%

MINIMUM PHYSICAL REQUIREMENTS

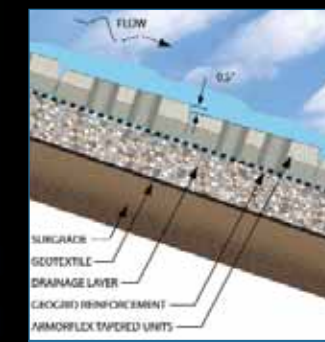
| MIN. DENSITY (IN AIR) LBS/FT ³ | | MIN. COMPRESSIVE STRENGTH PSI | | MAX. WATER ABSORPTION LBS/FT ³ | |
|---|--------------------|-------------------------------------|--------------------|---|--------------------|
| AVE. OF 3 UNITS | INDIVIDUAL UNIT | AVE. OF 3 UNITS | INDIVIDUAL UNIT | AVE. OF 3 UNITS | INDIVIDUAL UNIT |
| 130 | 125 | 4,000 | 3,500 | 9.1 | 11.7 |

*Unit weight and density values may vary due to availability of local materials.

| CONCRETE BLOCK CLASS | OPEN/ CLOSED CELL | NOMINAL DIMENSIONS | | | GROSS AREA/ (sq. ft.) | BLOCK WEIGHT | | OPEN AREA % |
|---|-------------------------|-----------------------|------|------|-----------------------------|-----------------|--------------|-------------------|
| | | L | W | H | | lbs. | lbs./sq. ft. | |
| 30s | Open | 13.0 | 11.6 | 4.75 | 0.98 | 31-36 | 32-37 | 20 |
| 50s | Open | 13.0 | 11.6 | 6.00 | 0.98 | 45-52 | 45-53 | 20 |
| 40 | Open | 17.4 | 15.5 | 4.75 | 1.77 | 62-71 | 35-40 | 20 |
| 50 | Open | 17.4 | 15.5 | 6.00 | 1.77 | 81-94 | 46-53 | 20 |
| 70 | Open | 17.4 | 15.5 | 8.50 | 1.77 | 120-138 | 68-78 | 20 |
| 40L | Open | 17.4 | 23.6 | 4.75 | 2.58 | 90-106 | 35-41 | 20 |
| 70L | Open | 17.4 | 23.6 | 8.50 | 2.58 | 173-201 | 67-78 | 20 |
| 45s | Closed | 13.0 | 11.6 | 4.75 | 0.98 | 39-45 | 40-45 | 10 |
| 55s | Closed | 13.0 | 11.6 | 6.00 | 0.98 | 53-61 | 54-62 | 10 |
| 45 | Closed | 17.4 | 15.5 | 4.75 | 1.77 | 78-89 | 43-50 | 10 |
| 55 | Closed | 17.4 | 15.5 | 6.00 | 1.77 | 94-108 | 53-61 | 10 |
| 85 | Closed | 17.4 | 15.5 | 8.50 | 1.77 | 145-167 | 82-98 | 10 |
| 45L | Closed | 17.4 | 23.6 | 4.75 | 2.58 | 108-126 | 42-49 | 10 |
| 85L | Closed | 17.4 | 23.6 | 8.50 | 2.58 | 209-243 | 81-94 | 10 |
| High Velocity Application Block Classes | | | | | | | | |
| 40-T | Open | 17.4 | 15.5 | 4.75 | 1.77 | 62-71 | 35-40 | 20 |
| 50-T | Open | 17.4 | 15.5 | 6.00 | 1.77 | 81-94 | 46-53 | 20 |
| 70-T | Open | 17.4 | 15.5 | 8.50 | 1.77 | 120-138 | 68-78 | 20 |

Note: Please see your local sales representative for regional block availability.

DAMS, SPILLWAYS, AND HIGH VELOCITY CHANNELS



ArmorFlex T-Series

ArmorFlex unique Tapered block design offers superior protection for embankment dams, spillways, and high velocity channels and chutes. The essential design component of the ArmorFlex Tapered system is a 0.5-inch taper that virtually eliminates destabilizing impact flow forces, thereby providing higher factors of safety. The ArmorFlex Tapered block system has been successfully tested under hydraulic jump conditions at Colorado State University.

RESEARCH AND DESIGN

Since 1980, Armortec has initiated and participated in a wide range of research projects to evaluate the performance of ArmorFlex, including the following:

- Tetrattech model tests - California, U.S.A.
- Wave Attack Tests, Report No. M1910 - Delft Hydraulics Laboratory, 1982
- "Large-Scale model study of ArmorFlex slope protection" Tekmarine, Inc., May, 1984
- "Design for Reinforced Grass Waterways," - CIRIA Report 116, 1987
- "Minimizing Embankment Damage During Overtopping Flows," FHWA Report-RD-88-181 prepared by Simons, Li and Associates, Inc, November 1988
- "Hydraulic Stability of Articulated Concrete Block Revetment Systems During Overtopping Flow," FHWA Report-RD-89-199 prepared by Simons, Li and Associates, Inc., July 1989
- ArmorFlex Overtopping Test, prepared by Ayers Associates, Inc.

RESEARCH PROVEN PERFORMANCE

Armortec has carried out extensive research into wave and open channel flow conditions on ArmorFlex in the United States and the Netherlands. Design manuals and computer programs are available to assist in the proper ArmorFlex block selection for your hydraulic conditions.



Dam Overtopping Tests

