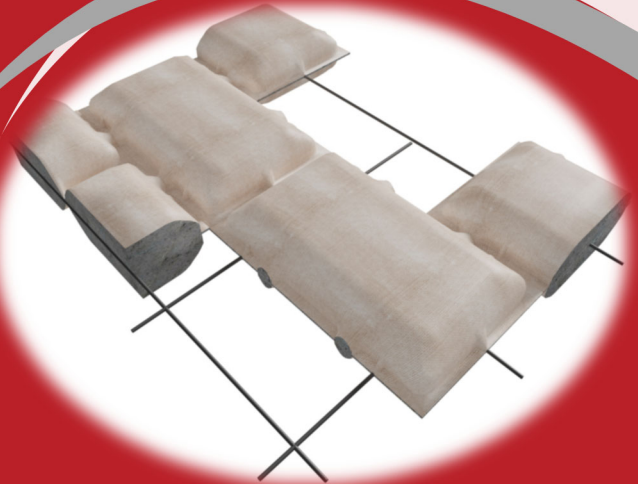


# ARMORFORM<sup>®</sup>

YOUR SOLUTION TO PERMANENT HARD ARMOR EROSION CONTROL

## Articulating Block Mat

- **Articulating Block Mat (ABM)** is formed with a double-layer woven fabric, joined together into a matrix of rectangular compartments, each separated by a narrow perimeter of interwoven fabric and containing interconnecting high strength revetment cables. Similar to precast block mats, once pumped the ABM is designed to permit differential settling and block articulation.
- **Articulating Block Mat (ABM)** form a mattress of individual blocks in a bonded block pattern. The revetment cables become embedded in the blocks to tie the blocks together and resist tension in all directions. Patented separate cable duct design assures that the revetment cables will be positioned securely in the center of each block. Relief of hydrostatic uplift pressure is provided through the narrow perimeter of interwoven fabric after the grout has hardened. ABM is custom fabricated into multiple mill width panels, designed to fit the actual site dimensions and topography.



**ARMORFORM<sup>®</sup>**  
Fabric Formed Hard Armoring

## DESIGN CONSIDERATIONS

- ABM is used where velocities are low to high, bedload and ice formations are light to heavy and a roughness coefficient of  $N = 0.045$  to  $0.050$  is acceptable.
- ABM is used where wave action is light to heavy.
- ABM is ideal for underwater placement.
- ABM is recommended where subgrade deformation is expected.

## APPLICATIONS

- Bridge Abutments
- Storm Sewer Outfalls
- Channel Lining
- Levee Protection
- Dike Groin
- Spillway/Weirs
- Pipeline Shallow Cover

## INDUSTRIES

- Highways/Bridges
- Ports/Harbors
- Dams/Levees
- Rivers/Canals
- Flood Control
- Coastal/Marine
- Industrial Waste Landfill
- Mining
- Oil/Gas Pipeline
- Power Generation

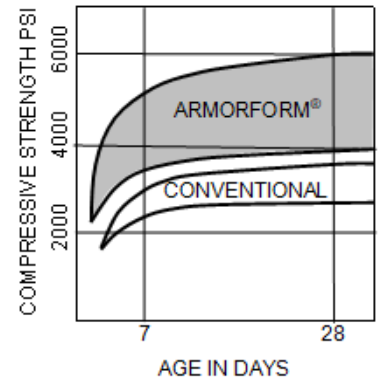
# ARTICULATING BLOCK MAT TECHNICAL DATA

ARTICULATING BLOCK MAT(ABM)				
STYLE	NOMINAL THICKNESS	BLOCK WEIGHT	UNIT WEIGHT	CONCRETE COVERAGE
3" ABM	20" x 11" x 3"	52 lbs.	34 lbs./ft <sup>2</sup>	97 sq. ft./cy
4" ABM	20" x 14" x 4"	88 lbs.	45 lbs./ft <sup>2</sup>	73 sq. ft./cy
6" ABM	20" x 20" x 6"	189 lbs.	68 lbs./ft <sup>2</sup>	49 sq. ft./cy
8" ABM	30" x 22" x 8"	416 lbs.	91 lbs./ft <sup>2</sup>	36 sq. ft./cy
10" ABM	30" x 26" x 10"	614 lbs.	113 lbs./ft <sup>2</sup>	28 sq. ft./cy
12" ABM	30" x 28" x 12"	793 lbs.	136 lbs./ft <sup>2</sup>	22 sq. ft./cy

A fluid, high-strength, concrete is utilized in the construction of all ARMORFORM® revetments. As an aid to pumpability, a pozzolan grade fly ash may be substituted for up to 25% of the cement. Mixes designed with 5% to 8% air content will have improved pumpability and resistance to freeze-thaw. A retarding admixture may be used in hot weather.

Excess mixing water expelled through the permeable ARMORFORM® fabric will reduce the volume of fluid structural grout from 27 cu. ft. to approximately 25 cu. ft. of hardened grout and also reduce the water/cement ratio from approximately 0.7 to approximately 0.4.

Fine aggregate concrete consistency should be in the 9-11 second range when passed through the 3/4" orifice of the standard flow cone described in ASTM C-939-93. Tests utilizing a concrete slump cone are not appropriate.



### TYPICAL RANGE OF MIX PROPORTIONS

Material	Mix Proportions lbs./cu. yd.	After Placement lbs./cu. yd.
Cement	750-850	810-920
Sand	2030-2120	2195-2290
Water	485-555	360-430
Fly Ash	Up to 25% of Cement	