

# 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"	55 lbs.	35 lbs./ft <sup>2</sup>	95 sq. ft./cy
4" ABM	20" x 14" x 4"	90 lbs.	47 lbs./ft <sup>2</sup>	73 sq. ft./cy
6" ABM	20" x 20" x 6"	195 lbs.	70 lbs./ft <sup>2</sup>	49 sq. ft./cy
8" ABM	30" x 22" x 8"	420 lbs.	93 lbs./ft <sup>2</sup>	36 sq. ft./cy

MATERIAL PROPERTY – ARMORFORM FABRICS			
PROPERTY	TEST	UNITS	VALUE
<b>PHYSICAL</b>			
Composition of Yarns	-	-	Polyester
Mass Per Unit Area (Double-Layer)	ASTM D	oz/yd <sup>2</sup>	14
Thickness (Single-Layer)	ASTM D	mils	27
Mill Width (Woven)		inch	72
<b>MECHANICAL</b>			
Wide-Width Strip Tensile Strength - WARP   FILL	ASTM D 4595	lbs./inch	340/270
Elongation at Break - WARP   FILL - Max.		%	12/12
Trapezoidal Tear Strength - WARP   FILL	ASTM D 4533	lbs.	180/170
Grab Tensile Strength	ASTM D4632	lbf	364/310
Grab Tensile Elongation		%	25/21
CBR Puncture Strength	ASTM D	lbs.	1525
<b>HYDRAULIC</b>			
Apparent Opening Size (AOS) <sup>3</sup>	ASTM D 4751	U.S. Standard	20
Flow Rate	ASTM D 4491	gal/min/ft <sup>2</sup>	125