

ARMORFORM[®]

YOUR SOLUTION TO PERMANENT HARD ARMOR EROSION CONTROL

Filter Point Mat

- **Filter Point Mat (FPM)** is an erosion resistant, permeable concrete lining formed with a double-layer woven fabric, joined together by interwoven, filter points (drains). Once pumped, the cobbled surface and relatively high coefficient of friction act to reduce velocity and wave run-up. The filter points provide for the relief of hydrostatic uplift pressure, increasing the system's stability.
- **Filter Point Mat (FPM)** form a lining of average thickness and specified weight to provide strength and erosion protection to resist the calculated tractive forces. The design criterion for selection of lining thickness is the same as that used to determine the thickness of conventional concrete slope paving. FPM is custom fabricated into multiple mill width panels, designed to fit actual site dimensions and topography.



ARMORFORM[®]
Fabric Formed Hard Armoring

DESIGN CONSIDERATIONS

- FPM is used where velocities are low, bedload and ice formations are light and a roughness coefficient of $N = 0.025$ to 0.030 is acceptable.
- FPM is used where wave action is light.
- FPM is ideal for underwater placement.
- FPM should be installed on engineered slopes

APPLICATIONS

- Bridge Abutments
- Storm Sewer Outfalls
- Channel Lining
- Pond Lining
- Shoreline Revetments
- Spillway/Weir Structures
- Embankments

INDUSTRIES

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

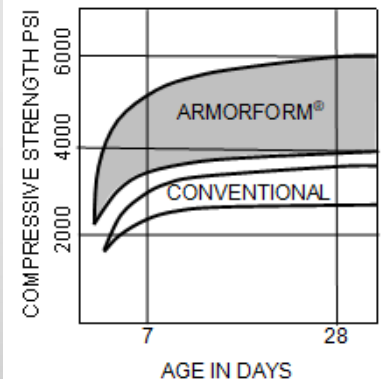
FILTER POINT MAT TECHNICAL DATA

FILTER POINT MAT (FPM)				
STYLE	SPACING	AVERAGE THICKNESS	UNIT WEIGHT	CONCRETE COVERAGE
5" FPM	5"	2.2"	26 lbs./ft ²	135 sq. ft./cy
8" FPM	8"	4.0"	47 lbs./ft ²	73 sq. ft./cy
10" FPM	10"	6.0"	70 lbs./ft ²	49 sq. ft./cy
12" FPM	12"	8.0"	93 lbs./ft ²	36 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



TYPICAL RANGE OF MIX PROPORTIONS		
Material	Mix Proportions	After Placement
	lbs./cu. yd.	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	



Bowman
Construction
Supply Inc.



Quick
Supply Co.



Cascade
GEOSYNTHETICS

LOCATIONS & CONTACT INFO

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SOLUTIONS WE SUPPLY

GEOSYNTHETICS

Filter Fabrics

Stabilization Fabrics

Geogrids

- Road Grids
- Wall Grids
- Slope Stabilization

Specialty Fabrics

Composite Geomembranes

- GCLs, PVC, HDPE, LLDPE, EPDM, Granular Bentonite

SEDIMENT CONTROL

Inlet Protection

- Grated Inlet, Curb Inlet, Area Inlet Protection

Ditch Checks

- Triangle Silt Dike
- GeoRidge

Perimeter Protection

- High and Low-Porosity Silt Fence, Straw Wattles, Silt Socks
- Safety Fence

Flocculants & Water Treatment

- Polymer-Based & Natural Flocculants

Sediment Basin Skimmers

Dewatering Bags

Trackout Control

- FODS
- Rumble Grates

Turbidity Curtains

EROSION CONTROL

Basic Hydraulically Applied Mulches

- Wood
- Paper
- Blends
- Straw

High-Performance Hydraulically

Applied Products

- BFM
- FGM
- Additives & Tackifiers

Temporary Erosion Control Blankets

- Coir & Jute Mat/Nettings
- Short-Term ECBs
- Extended-Term ECBs

Permanent Erosion Control Blankets

- Turf Reinforcement Mats
- HP-TRMs
- Anchor Reinforced Vegetation System

Structural BMPs

- Transition Mats
- Geoweb Cellular Confinement
- Composite Vegetated Armor System
- Flex MSE Vegetated Wall System
- Articulated Concrete Block
- Gabions
- Grout-Filled Geotextile Mats

Vegetation Establishment

- Native Seed & Turf Seed
- Fertilizers
- Organic Soil Additives
- Stratavault Soil Cells

STORMWATER MANAGEMENT

Water Quality

- Inlet Filter Boxes
- Pre-Treatment Chamber
- Nutrient Separating Baffle Boxes
- High-Flow Biofiltration Media
- Hydrodynamic Separators
- Stratavault

Water Quantity

- Modular Underground Storage Systems
- Chamber Detention Systems

Drainage

- HDPE Swale Liner
- Pipe & Fittings
- Drainage Composites
- Strip Drain

Inlet Structures

- PVC
- Drain Basins, In-Line Drains
- Landscape

Permeable Pavers

- Permeable Articulating Concrete Block
- Grass Pavers
- Gravel Pavers
- Concrete Pavers

SPECIALTY

Natural & Synthetic Coir Fiber Logs

Vegetated Reinforced Soil Slopes

Soil Anchors

Root Barrier System

AquaBlok

Muscle Wall

We are full line distributors of construction materials for all project types. Contact us for assistance with a project. From specification and development to installation and completion, we're here to help with all of your site solution needs.

GEOSYNTHETICS | EROSION CONTROL | STORMWATER MANAGEMENT
SEDIMENT CONTROL | REVEGETATION & SOIL AMENDMENTS