ARMORFORM®

YOUR SOLUTION TO PERMANENT HARD ARMOR EROSION CONTROL

Uniform Section Mat

- **Uniform Section Mat (USM)** is formed with a double-layer woven fabric, joined together by spacer cords on closely spaced centers to produce a mat of uniform thickness. Similar to traditional concrete slope paving, USM creates a solid, high-quality concrete lining with a low hydraulic resistance for use in various lining and erosion resistance applications.
- **Uniform Section Mat (USM)** form a lining of required nominal thickness, bonded cobbled surface 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. Relief of hydrostatic uplift pressure may be provided by inserting plastic weep tubes through the mat at specified centers. USM is custom fabricated into multiple mill width panels, designed to fit actual site dimensions and topography.

ARMORFORM®

Fabric Formed Hard Armoring

UNIFORM SECTION MAT
TECHNICAL DATA

DESIGN CONSIDERATIONS

- USM is used where velocities are low to high, bedload and ice formations are light and a roughness coefficient of N=0.015 is required.
- USM reduces seepage losses in reservoirs, ponds, holding basins and channels.
- USM is recommended for drainage flumes and spillways.
- USM should be installed on engineered slopes.

APPLICATIONS

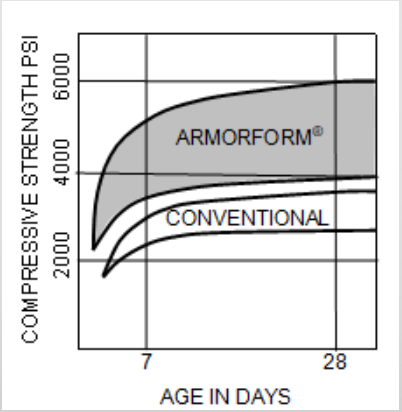
- Bridge Abutments
- Storm Sewer Outfalls
- Channel Lining
- Geomembrane Ballast/ Protection
- Spillway/Weirs
- Embankments

INDUSTRIES

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

UNIFORM SECTION MAT (USM)			
STYLE	NOMINAL THICKNESS	UNIT WEIGHT	CONCRETE COVERAGE
3" USM	3.0"	35 lbs./ft²	97 sq. ft./cy
4" USM	4.0"	47 lbs./ft²	73 sq. ft./cy
6" USM	6.0"	70 lbs./ft²	49 sq. ft./ct
8" USM	8.0"	93 lbs./ft²	36 sq. ft./cy
10" USM	10.0"	115 lbs./ft²	28 sq. ft./cy
12" USM	12.0"	136 lbs./ft²	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

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	

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Carolina Yarn & Fabrics, LLC.

ASP Enterprises | Bowman Construction Supply Inc. | Quick Supply Co. | Cascade GEOSYNTHETICS

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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