

**ARMORFORM® UNIFORM SECTION MAT
TECHNICAL DATA SHEET**

TABLE 1.0 – FABRIC PROPERTIES			
PROPERTY	TEST METHOD	UNITS	VALUE
Physical:			
Composition of Yarn	-	-	Polyester
Mass Per Unit Area (Double Layer)	ASTM D 5261	oz/yd ²	14
Thickness (Single Layer)	ASTM D 5199	mils	27
Mill Width (Woven)	-	inch	72
Mechanical (Single Layer):			
Wide Width Strip Tensile Strength – Warp/Fill	ASTM D 4595	Lbs./inch	340/270
Elongation at Break – Warp/Fill – Max.		%	12/12
Mullen Burst Strength	ASTM D 3786	psi	540
Trapezoidal Tear Strength – Warp/Fill	ASTM D 4533	Lbs.	180/170
CBR Puncture Strength	ASTM D 6241	Lbs.	1525
Hydraulic (Single Layer):			
Apparent Opening Size (AOS)	ASTM D 4751	U.S. Standard Sieve	20
Flow Rate	ASTM D 4491	gal/min/ft ²	125

TABLE 2.0 - ARMORFORM® Uniform Section Mat (USM)			
Style	Nominal Thickness (in)	Avg. Unit Weight (lb./ft²)	Concrete Coverage (ft²/cy)
3USM	3.0	35	97
4USM	4.0	47	73
6USM	6.0	70	49
8USM	8.0	93	36
12USM	12.0	135	25

ARMORFORM[®] UNIFORM SECTION MAT
TECHNICAL NOTES

1. The ARMORFORM[®] Uniform Section Mat (USM), designated as _____USM on the drawings, will indicate the fabric designation required from the choice of fabric styles shown in Table 2.0 above. Fabric style designates the average thickness, and average unit weight of cast in place completed revetment:
2. The ARMORFORM[®] Uniform Section Mat (USM) shall be woven in such a manner as to provide interwoven spacer cords of uniform length to form a concrete lining of the specified average thickness. The cords shall be interwoven between the two layers of fabric, in parallel pairs, so that cords in the top layer and cords in the bottom layer cross between layers at drop points. When pumped, the USM will have a comparatively uniform section with a brick pattern surface appearance.
3. The fabric forms shall be composed of synthetic yarns formed into a woven fabric. Yarns used in the manufacture of the fabric shall be composed of polyester. Forms shall be woven with a minimum of 50% textured yarns (by weight). Partially-oriented (POY), draw-textured, and/or staple yarns shall not be used in the manufacture of the fabric. Each layer of fabric shall conform to the physical, mechanical and hydraulic requirements Mean Average Roll Values listed in Table 1.0 above. The fabric forms shall be free of defects or flaws which significantly affect their physical, mechanical, or hydraulic properties.
4. Mill widths of fabric shall be a minimum of 72 inches. Mill width rolls shall be cut to the length required, and the double-layer fabric separately joined, bottom layer to bottom layer and top layer to top layer, by means of sewing thread, to form multiple mill width panels with sewn seams on not less than 68-inch centers.
5. Fabric form panels shall be factory-sewn, by jointing together the layers of fabric, top layer to top layer and bottom layer to bottom layer, into predetermined custom sized panels. Sewn seams shall be downward facing as shown on the Contract Drawings. All sewn seams and zipper attachments shall be made using a double line of U.S. Federal Standard Type 401 stitch. All seams sewn shall be not less than 100 lbf/inch when tested in accordance with ASTM D 4884.
6. Baffles shall be installed at predetermined mill width intervals to regulate the distance of lateral flow of fine aggregate concrete. The baffles shall be designed to maintain a full concrete lining thickness along the full length of the baffle. The baffle material shall be nonwoven filter fabric. The grab tensile strength of the filter fabric shall be not less than 180 lbf/inch when tested in accordance with ASTM D 4632.
7. Where groundwater conditions require provision for relief of hydrostatic uplift, 7/8" I.D. weep tube assemblies shall be inserted through the fabric. These weep tube assemblies shall be held in place during grout injection by means of a snap on collar attached to the lower end of the weep tube assembly. If the revetment has not been placed over a geotextile filter cloth, the lower end of the weep tube assembly shall be covered with a piece of filter cloth. The weep tube assemblies shall be located as called for on the plans.
8. The fabric forms shall be kept dry and wrapped such that they are protected from the elements during shipping and storage. If stored outdoors, they shall be elevated and protected with a waterproof cover that is opaque to ultraviolet light.