PRODUCT INFORMATION



SB – AW Concrete Fabric (Geosynthetic Cementitious Composite Mat)

SB - AW Concrete Fabric (GCCM) is a flexible, concrete impregnated fabric that hardens when hydrated to form a thin, durable, waterproof and fire-resistant concrete layer. It allows concrete construction without the need for plant or mixing equipment. Simply position the SB-AW concrete fabric and add with water. SB-AW Concrete Fabric is commonly used as road drainage, to protect river embankment and slopes as a replacement for shotcrete, ditch and channel lining, culvert, slope, berm, geosynthetic liner protection, irrigation, mining and remediation. Our SB – AW Concrete Fabric is easy to install, requiring limited equipment, and can be installed using galvanized/zinc coated J-pin hook 16mm diameter and 500mm minimum length with standard galvanized screw.

Product Benefits

• Quick installation time, 10 times faster than conventional concrete solutions.
• Cost effective, less human and heavy machinery needed for the whole installation process.
• Simple and easy to use, it is pre-mixed so there is no need for mixing, measuring or compacting, and portable rolls for application with limited access.
• Eco Friendly, low mass, low carbon technology which uses up to 95% less material than conventional concrete for many applications. It is non-toxic and harmless, environmentally friendly for vegetation.
• Long lasting and durable, chemically resistant, the fiber reinforcement prevent cracking, absorbs energy from impacts and provides a stable failure mode, adaptable to all kind of weather
• Flexible, has good drape characteristic and will closely follow the profile of any ditch or embankment. The material can negotiate tight bends and fit around existing infrastructure. It can be cut or tailored using basic hand tools.

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Installation Instructions

1) Site Inspection and Offloading SB-AW Concrete Fabric products at the job site on pallets. SB-AW Concrete Fabric rolls come individually wrapped in plastic. It is important to check the wrapping when SB-AW Concrete Fabric rolls arrive at the job site. Unopened SB-AW Concrete Fabric rolls must be stored in a dry area, off the ground, and away from moisture for up to 1 year. Any damage to the packaging should be repaired prior to storage using plastic wrap and tape to protect the SB-AW Concrete Fabric material from premature hydration.

2) Subgrade Preparation Compacted and smooth subgrade should be prepared to engineering specifications prior to placement of SB-AW Concrete Fabric (GCCM). Subgrade should be prepared to the lines and tolerances of the engineered drawing for the installation. Soil should be clear of surface vegetation, debris, rocks, and branches. Uneven subgrade may create voids beneath the SB-AW Concrete Fabric material, which may reduce its support. To the extent possible, SB-AW Concrete Fabric material should be in intimate contact with the sub-surface to which it is being applied. If the grade upon which the SB-AW Concrete Fabric product is placed contains ridges, bumps, or valleys, these features will be visible once the product is installed. The product should be installed at a temperature above freezing. If the temperature is expected to drop well below freezing after the install, ensure that it is insulated and the heat of hydration will continue the curing process.

3) **Installation:** SB-AW Concrete Fabric Material Placement Because of the nature of the overlap design used in many SB-AW Concrete Fabric (GCCM) installations, typical installation will begin at the lowest point of the project and proceed up the grade. A 'shingled' installation overlapping SB-AW Concrete Fabric rolls is used to reduce any water seepage between the overlapped rolls. SB-AW Concrete Fabric materials are designed in such that the plastic backing of the material will be against the subgrade in almost all applications. This side is water resistant and will not allow subsequent hydration if the material is installed upside down. The back side is easily identifiable because it is a continuous plastic film on the SB-AW Concrete Fabric material. Additionally, SB-AW Concrete Fabric (GCCM) is batched into rolls such that the backside will always be on the outside of the roll. For this reason, when installing SB-AW Concrete Fabric material from rolls, it is important to let the fabric off from the bottom side of the roll.

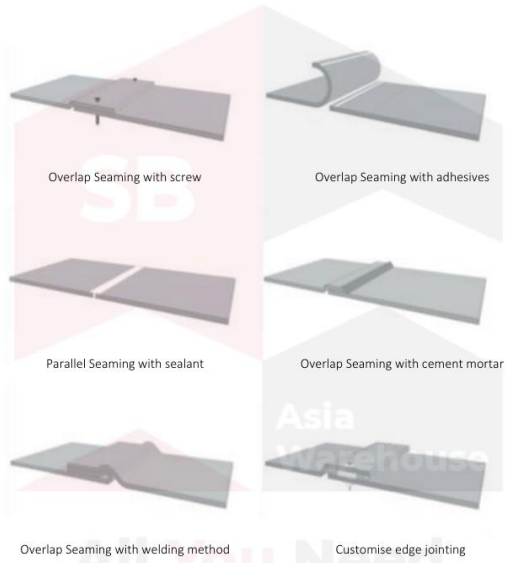
4) Cutting SB-AW Concrete Fabric Products often times the SB-AW Concrete Fabric material will need to be cut to a specified length, or to conform to the installation area. SB-AW Concrete Fabric (GCCM) is designed to be cut with commonly available cutting tools. A 'box cutter' or 'razor knife' will work well in making cuts in SB-AW Concrete Fabric products. Always use appropriate hand PPE when working with cutting tools. To make the cut, simply place the SB-AW Concrete Fabric material onto a desirable cutting surface. For example, a piece of plywood acts as a suitable cutting surface. The use of the cutting surface is to protect the tool and will result in a clean SB-AW Concrete Fabric edge. It is completely possible to make cuts after installation, assuming it can be done safely. Place the backside of SB-AW Concrete Fabric material (this is the side with the plastic backing) down in contact with the cutting surface. Always cut SB-AW Concrete Fabric material from the top side of the material (non-coated side) when possible. This will minimize any tearing of the backing.

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Installation Instructions

5) Seams and overlaps as previously discussed, in many applications a simple 'shingle' technique is quite sufficient for overlapping as you work up a slope. When using multiple widths side by side 'on grade', other techniques of seaming and overlap may be required.





6) Hydration Complete hydration of SB–AW Concrete Fabric material is critical to optimal performance. SB-AW Concrete Fabric products cannot be overhydrated and incomplete hydration may result in reduced strength of the product. Hydration can be done with virtually any water source and can be installed in the rain. Salt water and or dirty water will not have a negative effect on the performance of the product in most circumstances.

Specifications

SB-AW Concrete Fabric is made of a combination of 3-Dimensional Fiber Matrix containing a specially formulated dry cementitious materials mix. A PVC backing on the back side of the SB-AW Concrete Fabric ensure the material is 100% waterproof.

Model	Thickness (mm)	Weight (kg/m^2)	Roll length (m)	Roll Width (m)	Density (kg/m^3)	Density (kg/m^3)
SBAW – CF 5	5	8	10 – 25m, max. 40m	2m	1500	+ 30-35%
SBAW – CF7	7	10	10 – 25m, max. 40m	2m	1500	+ 30-35%
SBAW – CF 10	10	15	10 – 25m, max. 40m	2m	1500	+ 30-35%

*Note: Custom-made order for thicker SB-AW Concrete Fabric is available and please contact us for more information.

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Strength

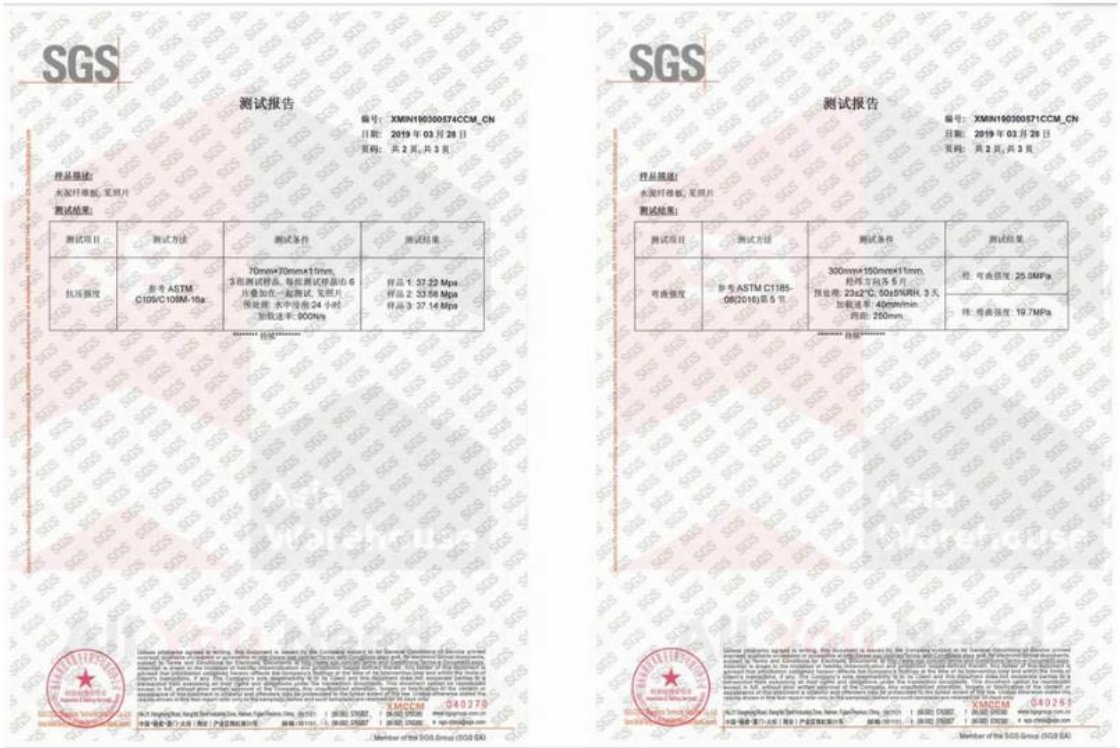
High strength is a fundamental characteristic of SB – AW Concrete Fabric.
Typical strengths and physical characteristics are as follows:

Compressive tests based on ASTM C109/C109M-16a (initial crack) - compressive failure stress (MPa) - 60
Bending tests based on ASTM C1185-08(2016) (initial crack) - bending failure stress (MPa) - 15

Shelf Life

1 Year in Dry Storage Area




SGS 测试报告

测试项目	测试方法	测试条件	测试结果
抗压强度	参考 ASTM C109/C109M-16a	70mm×70mm×11mm, 3	

SGS 测试报告

测试项目	测试方法	测试条件	测试结果
弯曲强度	参考 ASTM C1185-08(2016)第 5 节	300mm×150mm×11mm,	

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the preceding is made in lieu of all warranties, expressed or implied.

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Project References







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