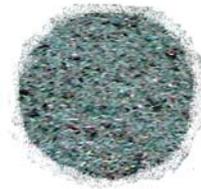




MATERIAL SPECIFICATION



HydraCX²

Cotton Fiber Reinforcement Matrix

The North American Green HydraCX² Cotton Fiber Reinforcement Matrix (C-FRM) shall be a hydraulically-applied matrix composed of a patent-pending blend of mechanically processed cotton fibers, straw fibers, performance-enhancing tackifiers, and other proprietary additives. The HydraCX² requires no curing for soil erosion protection, and establishes an intimate bond upon application with the soil's surface to create a continuous, porous, absorbent and flexible erosion control matrix that allows for rapid germination and accelerated plant growth. The HydraCX² is 100% biodegradable, environmentally friendly, and consists of 90.9% organic matter.

The all natural fiber mulch shall satisfy the control performance criteria set forth in the Ceriodaphnia Dubia test as described in EPA documentation (USEPA 2002) and the Region VIII NPDES Whole Effluent Toxics Control Program (EPA Region VIII 1997); therefore illustrating no significant toxicity for the mulch.

Composition:

All components of the HydraCX² shall be pre-packaged by the Manufacturer to assure material performance and in compliance with the following values. **Under no circumstances will field mixing of additives or components be accepted.**

Mechanically processed Straw – 65% ± 3%
Mechanically processed Cotton Fibers and Byproducts– 25 % ± 3%
Proprietary Hydro-Colloid Tackifiers and Activators – 10% ± 1%

Specifications:

Content: Cotton/Straw
Packaging: 50 lbs (23 kg) +/- 3%
Total Organic Matter: 90.0
Carbon to Nitrogen Ratio: 38:1
Moisture Content: 12% ± 3%
Color: Natural Green

Packaging:

Bags are filled with 50 lbs (23 kg) of material and packaged in a UV and weather-resistant bag. Each pallet contains 40 bags or one ton with a plastic pallet cover for enhanced protection from rain and UV rays.

Manufacturing:

HydraCX² is manufactured exclusively for North American Green by Mulch & Seed Innovations, LLC, Centre, Alabama. HydraCX² is manufactured within a set of quality guidelines established after years of product development and rigorous testing in varying conditions.

Application Instructions*:

1. Fill tank of a mechanically agitated hydroseeding machine with sufficient water to suspend seed and fertilizers. Add soil amendments.
2. Continue to add water slowly while adding HydraCX2 at a steady rate. Use loading chart to determine the proper application rates. Mix at a rate of 50 lbs of HydraCX2 per 100 gallons of water.
3. Agitate for a minimum of 10 minutes after adding the last amount of water and HydraCX2.
4. Apply in a uniform layer from 2 opposing directions to ensure complete soil coverage. Irregular surfaces may need slightly higher application rates to obtain adequate coverage.
5. Clean equipment properly to ensure HydraCX2 is removed from the pump, tank, and hoses.

Not for use in channels, swales, or other areas where concentrated flows are anticipated, unless installed in conjunction with a temporary erosion control blanket or permanent reinforcement mat. HydraCX2 may be applied on saturated surfaces.

Do not allow foot traffic or grazing on treated areas until vegetated. Be cautious of slippery surfaces while applying.

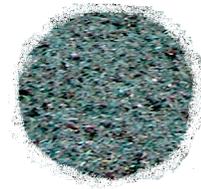
Warning: Do not store near an open flame or heat source. Use caution when stacking units.

* See Installation guide for more detailed information regarding application of the HydraCX²



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PERFORMANCE SPECIFICATION



HydraCX²

Cotton Fiber Reinforcement Matrix

The North American Green HydraCX² Cotton Fiber Reinforcement Matrix (FRM) shall be a hydraulically-applied mulch composed of a patent-pending blend of mechanically processed cotton and straw fibers, and a performance-enhancing tackifiers and additives. The HydraCX² requires no curing time for soil erosion and upon application forms an intimate bond with the soil surface to create a continuous, porous, absorbent and flexible erosion control matrix that allows for rapid germination and accelerated plant growth. The HydraCX² is 100% biodegradable and consists of 90.9% organic matter creating an environmentally friendly hydraulically-applied FGM.

<u>Property</u>	<u>Test Method</u>	<u>Typical</u>
Thickness	ASTM D6566	0.2 in (5 mm)
Mass per Unit Area	ASTM D6525	11 oz/yd ² (350 g/m ²)
Ground Cover	ASTM D6567	99%
Water Holding Capacity	ASTM ?	500%
Stiffness	ASTM D6575	2 oz/yd (5,000 mg/cm)
Cure Time	Observed	No cure time
Color	Observed	Green
Functional Longevity	Observed	Up to 12 months

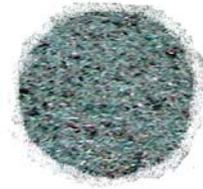
<u>Performance</u>		
Cover Factor (6 in/ hr event)	ASTM D6459	0.004
Percent Effectiveness	ASTM D6459	99%
Vegetation Enhancement	ECTC Test Method 4	200%

Manufacturing:

HydraCX² is manufactured and privately labeled for North American Green by Mulch & Seed Innovations, LLC. HydraCX² is manufactured within a set of quality guidelines established only after years of product development and rigorous testing in varying conditions.



SUPPLEMENTAL SPECIFICATION



HydraCX²
Cotton Fiber Reinforcement Matrix

The North American Green HydraCX² Cotton Fiber Reinforcement Matrix (C-FRM) shall be a hydraulically-applied matrix composed of a patent-pending blend of mechanically processed cotton fibers, straw fibers, performance-enhancing tackifiers, and other proprietary additives. The HydraCX² requires no curing for soil erosion protection, and establishes an intimate bond upon application with the soil's surface to create a continuous, porous, absorbent and flexible erosion control matrix that allows for rapid germination and accelerated plant growth. The HydraCX² is 100% biodegradable, environmentally friendly, and consists of 90.9% organic matter.

The all natural fiber mulch shall satisfy the control performance criteria set forth in the Ceriodaphnia Dubia test as described in EPA documentation (USEPA 2002) and the Region VIII NPDES Whole Effluent Toxics Control Program (EPA Region VIII 1997); therefore illustrating no significant toxicity for the mulch.

<u>Property</u>	<u>Test Method</u>	<u>Typical</u>
Thickness	ASTM D6566	0.18 in (4.6 mm)
Mass per Unit Area	ASTM D6525	13.45 oz/yd ² (457 g/m ²)
Ground Cover	ASTM D6567	97.9%
Stiffness	ASTM D6575	612 mg/cm
Cure Time	Observed	No cure time
Color	Observed	Green
Functional Longevity	Observed	Up to 12 months

Performance		
Cover Factor (6 in/ hr event)	ASTM D6459	0.004
Percent Effectiveness	ASTM D6459	99.6%

Manufacturing: HydraCX² is manufactured and privately labeled for North American Green by Mulch & Seed Innovations, LLC. HydraCX² is manufactured within a set of quality guidelines established only after years of product development and rigorous testing in varying conditions.