

# SUDAS Revision Submittal Form

Status Date: As of 5/12/2017 Topic: Bonded fiber matrix  
Manual: Specifications Manual Location: Section 9010, 2.07, B

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## Requested Revision:

### Section 9010 (Seeding), 2.07 (Mulch)

#### B. For Hydraulic Seeding:

2. Bonded Fiber Matrix (BFM):
  - a. ~~Produced from long strand wood fibers, held together by organic tackifiers and bonding agents that, when dry, become insoluble and non-dispersible.~~
  - b. ~~Upon curing 24 to 48 hours, form a continuous, 100% coverage, flexible, absorbent, erosion-resistant blanket that encourages seed germination.~~
  - ea. Manufactured to be applied hydraulically.
  - d. ~~Physical Properties:~~
    - 1) ~~Fibers: Virgin wood, greater than 88% of total volume.~~
    - 2) ~~Organic Material: Greater than 96% of total volume.~~
    - 3) ~~Tackifier: 8-10%.~~
    - 4) ~~pH: 4.8 minimum.~~
    - 5) ~~Moisture Content: 12% +/- 3%.~~
    - 6) ~~Water holding Capacity: 1.2 gal/lb.~~
  - eb. Dyed green to facilitate visual metering.
  - fc. All components pre-packaged by manufacturer to ensure material performance and compliance. Field mixing of additives or any components will not be allowed.
  - gd. ~~Other products not meeting the requirements of the physical properties listed in item d above may be approved if they~~ Meet the following requirements:
    - 1) Contain non-toxic tackifiers that upon drying become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D 7101 and EPA 2021.0-1.
    - 2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.
    - 3) Hydraulic mulch that is completely photo-degradable or biodegradable.
    - 4) Contain a minimum of 90% organic material according to ASTM D 2974.
    - 5) Have a rainfall event (R-factor) of  $140 < R$  according to ASTM D 6459.
    - 6) Have a cover factor of  $C \leq 0.03$  according to ASTM D 6459.
    - 7) Vegetation Establishment of 400% minimum according to ASTM D 7322.
    - 8) Water Holding Capacity 600% minimum according to ASTM D 7367.
3. Mechanically-Bonded Fiber Matrix (MBFM):
  - a. ~~Produced from long strand wood fibers and crimped, interlocking synthetic fibers.~~
  - b. ~~Within two hours of application, form a continuous, 100% coverage, flexible, absorbent, porous, erosion-resistant blanket that encourages seed germination.~~
  - ea. Manufactured to be applied hydraulically.
  - d. ~~Physical Properties:~~
    - 1) ~~Wood Fibers: 73% minimum.~~
    - 2) ~~Tackifier: 10% +/- 1%.~~
    - 3) ~~Crimped, Interlocking Synthetic Fibers: 5% +/- 1%.~~
    - 4) ~~Moisture Content: 12% +/- 3%.~~
    - 5) ~~Water holding capacity: 1.2 gal/lb.~~
    - 6) ~~Minimum pH: 4.8.~~
  - eb. Dyed green to facilitate visual metering.

- fc. All components pre-packaged by manufacturer to ensure material performance and compliance. Field mixing of additives or any components will not be allowed.
- gd. ~~Other products not meeting the requirements of the physical properties listed in item d above may be approved if they~~ Meet the following requirements:
  - 1) Contain non-toxic tackifiers that upon drying become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D 7101 and EPA 2021.0-1.
  - 2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.
  - 3) Hydraulic mulch that is completely photo-degradable or biodegradable.
  - 4) Contain a minimum of 90% organic material according to ASTM D 2974.
  - 5) Have a rainfall event (R-factor) of  $175 < R$  according to ASTM D 6459.
  - 6) Have a cover factor of  $C \leq 0.01$  according to ASTM D 6459.
  - 7) Vegetation establishment of 500% minimum according to ASTM D 7322.
  - 8) Water holding capacity of 700% minimum according to ASTM D 7367.

**Reason for Revision:** Removing some of the physical requirements for hydraulic mulch as approval is based on performance and to align with Iowa DOT.

**Comments:** None.

<b>District:</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input checked="" type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<b>Comments:</b>	None.					
<b>Action:</b>	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved	
<b>District:</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<b>Comments:</b>	None.					
<b>Action:</b>	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved	
<b>District:</b>	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<b>Comments:</b>	None.					
<b>Action:</b>	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved	
<b>District:</b>	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
<b>Comments:</b>	None.					
<b>Action:</b>	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved	
<b>District:</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input checked="" type="checkbox"/> 6
<b>Comments:</b>	None.					
<b>Action:</b>	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved	
<b>District:</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> 5	<input type="checkbox"/> 6
<b>Comments:</b>	None.					
<b>Action:</b>	<input type="checkbox"/> Deferred		<input type="checkbox"/> Not Approved		<input checked="" type="checkbox"/> Approved	

**Final District Action Summary:** All 6 districts approved.

**Board of Directors Action:** Approved.