

GUIDE SPECIFICATION FOR **GEOPRO MATRIX**

HYDRAULIC MULCHES

PART 1 GENERAL

1.01 SUMMARY

- A. This section specifies a spray-applied hydraulic mulch with pre-mixed soil stabilizer which is used for 1) Hydraulic mulching, 2) Hydraulic seeding and 3) Tackification of blown or strewn mulch.

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials and application rates.

1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials and products in factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage from weather, excessive temperatures and construction operations.

PART 2 PRODUCTS & RELATED EQUIPMENT

2.01 ACCEPTABLE MANUFACTURER

- A. Price and Company, Inc., 425 36th Street SW, Wyoming, MI 49548-2108, 800.248.8230, Fax: 616.530.2317, Email: geopro@priceandcompany.com, Web: www.priceandcompany.com

2.02 MATERIALS & EQUIPMENT

- A. Hydraulic Mulch: **Geopro Matrix** by Price and Company, Inc. with the following characteristics:
 - 1. 66±% virgin hardwood fiber
 - 2. 29±% post consumer recycled paper
 - 3. 5±% jute fiber
 - 4. 0.6±% Silt Stop 745 soil stabilizer
 - 5. Packaging: 50 pounds in UV resistant bags
- B. Equipment: Use only mechanically agitated equipment. Hydraulically agitated equipment is not approved.

PART 3 EXECUTION

3.01 SURFACE SOIL PREPARATION

- A. Examine surface soils where products will be applied. Do not proceed with installation until unsatisfactory conditions are corrected.
 - 1. Apply products to flat or geotechnically stable slopes, only.
 - 2. Apply products to slopes above which water flows have been diverted away from the slope crest, if applicable.
 - 3. Apply to soil surfaces which are not 'frozen', as defined by ice crystal formation or snow dusting.

PART 3 EXECUTION CONTINUED

- B. For hydraulic mulching or hydraulic seeding
 - 1. Gill or otherwise break up crusted soils.
 - 2. Place seed and amendments per Project Engineer’s recommendations [mulching applications].
- C. For tackification of blown or strewn straw – with or without polymer stabilization of underlying soils
 - 1. Gill or otherwise break up crusted soils.

3.02 HYDRAULIC SLURRY PREPARATION – MECHANICALLY AGITATED EQUIPMENT ONLY

- A. For hydraulic mulching or hydraulic seeding:
 - 1. Fill tank with water to a level of at least 50% of useable tank capacity.
 - 2. Start agitation within tank.
 - 3. Add seed and soil amendments [if used].
 - 4. As additional water is added, add hydraulic mulch to the water at a rate not exceeding 50 pounds of dry mulch material for each 100 gallons of water. Complete the water/mulch addition process until completion. See TABLE 3.02.A for mulch quantities to be added per equipment tank size.
 - 5. If used, slowly sprinkle Silt Stop 705 soil stabilizer into slurry with agitator operating.
 - 6. Continue mixing with agitator for a minimum of 5 minutes prior to slurry use.

TABLE 3.02.A - For slurries comprised of 50 lbs mulch for each 100 gallons water

Tank Size (useable gallons)	Geopro Matrix (bags)	Silt Stop 705 Soil Stabilizer ¹ (cups)	Approximate Coverage (square feet)	Approximate No. of Tanks Per Acre
600	6	0.5	5,230	8.3
800	8	0.75	6,970	6.3
1000	10	1.0	8,710	5
1200	12	1.25	10,450	4.2
1400	14	1.5	12,200	3.6
1600	16	1.75	13,900	3.1
1800	18	1.75	15,700	2.8
2000	20	2.0	17,400	2.5
2200	22	2.25	19,100	2.3
2400	24	2.5	20,900	2.1
2600	26	2.5	22,600	2
2800	28	2.75	24,400	1.8
3000	30	3	26,100	1.7
3200	32	3.25	27,900	1.6
3400	34	3.5	29,600	1.5
3600	36	3.5	31,300	1.4

¹ Optional [recommended] maximum quantity of Silt Stop 705 which may be added per tank load for additional tackification

- B. For tackification of blown or strewn straw without polymer stabilization of underlying soils
 - 1. Fill tank with water to a level of at least 50% of useable tank capacity.
 - 2. Start agitation within tank
 - 3. As additional water is added, add hydraulic mulch to the water at a rate not exceeding 50 pounds of dry mulch material for each 100 gallons of water. Complete the water/mulch addition process until completion. See TABLE 3.02.B for mulch quantities to be added per equipment tank size.
 - 4. If used, slowly sprinkle Silt Stop 705 soil stabilizer into slurry with agitator operating.
 - 5. Continue mixing with agitator for a minimum of 5 minutes prior to slurry use.

PART 3 EXECUTION CONTINUED

TABLE 3.02.B - For slurries comprised of 50 lbs mulch for each 100 gallons water

Tank Size (useable gallons)	Geopro Matrix (bags)	Silt Stop 705 Soil Stabilizer ¹ (cups)	Approximate Coverage (square feet)	Approximate No. of Tanks Per Acre
600	6	0.5	18,600	2.4
800	8	0.75	24,900	1.8
1000	10	1.0	31,100	1.4
1200	12	1.25	37,300	1.2
1400	14	1.5	43,560	1.0
1600	16	1.75	49,700	0.9
1800	18	1.75	56,000	0.8
2000	20	2.0	62,200	0.7
2200	22	2.25	68,400	0.7
2400	24	2.5	74,600	0.6
2600	26	2.5	80,900	0.6
2800	28	2.75	87,100	0.5
3000	30	3	93,300	0.5
3200	32	3.25	99,500	0.5
3400	34	3.5	105,800	0.4
3600	36	3.5	112,000	0.4

¹ Optional [recommended] maximum quantity of Silt Stop 705 which may be added per tank load for additional tackification

C. For tackification of blown or strewn straw with polymer stabilization of underlying soils. A minimum of 3000 gallons per acre of slurry must be used. This rate of application is assumed within the TALBE 3.02.C values.

1. Fill tank with water to a level of at least 50% of useable tank capacity.
2. Start agitation within tank
3. As additional water is added, add hydraulic mulch to the water at a rate not exceeding 50 pounds of dry mulch material for each 100 gallons of water. Complete the water/mulch addition process until completion. See TABLE 3.02.C for mulch quantities to be added per equipment tank size.
4. Add Silt Stop 705 soil stabilizer. See TABLE 3.02.C for soil stabilizer quantities to be added per equipment tank size. Sprinkle soil stabilizer slowly into slurry with agitator working.
5. Continue mixing with agitator for a minimum of 5 minutes prior to slurry use.

TABLE 3.02.C - For slurries comprised of 50 lbs mulch for each 100 gallons water

Tank Size (useable gallons)	Geopro Matrix (bags)	Silt Stop 705 Soil Stabilizer ¹ (cups - required)	Approximate Coverage (square feet)	Approximate No. of Tanks Per Acre
600	2.8	3.5	8,700	5
800	3.7	4.75	11,600	3.75
1000	4.7	5.75	14,300	3
1200	5.6	7	17,400	2.5
1400	6.5	8.25	20,300	2.2
1600	7.5	9.25	23,200	1.9
1800	8.4	10.5	26,100	1.7
2000	9.3	11.75	29,000	1.5
2200	10.3	12.75	31,900	1.4
2400	11.2	14	34,800	1.25
2600	12.1	15	37,700	1.2
2800	13	16.25	40,500	1.1
3000	14	17.5	43,560	1
3200	15	18.5	46,400	1
3400	16	19.75	49,300	0.9
3600	17	21	52,200	0.9

¹ **Required** quantity of Silt Stop 705 which may be added per tank load for additional tackification

PART 3 EXECUTION CONTINUED

3.03 INSTALLATION

- A. For hydraulic mulching or as part of hydraulic seeding:
 - 1. Apply slurry at a minimum rate of 2500 pounds per acre of dry mulch material.
 - 2. Apply slurry in a manner that will cover all soil surfaces.
- B. For tackification of blown or strewn straw without polymer stabilization of underlying soils
 - 1. Apply slurry at a rate of 700 pounds per acre of dry mulch material.
- C. For tackification of blown or strewn straw with polymer stabilization of underlying soils
 - 1. Apply slurry at a rate of 3000 gallons per acre

3.04 SPILL CLEAN-UP

- A. Clean spills promptly
 - 1. Dry spills – sweep or brush from surfaces. Do not add water as this will make the surface slippery.
 - 2. Wet or wetted spills – use copious amounts of water to wash the material from the surface. Caution: surfaces may be slippery.

3.05 EQUIPMENT CLEAN-UP

- A. Clean equipment promptly – prior to daily shutdown or when extended delays are experienced
 - 1. Thoroughly rinse tank, pump, hoses and nozzles with clean water

END OF SECTION