



# HYDROSTRAW® GUAR PLUS CERTIFICATE OF COMPLIANCE

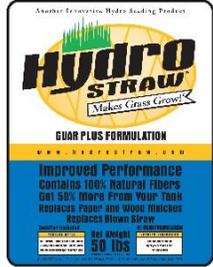
## CERTIFICATE OF COMPLIANCE

Patents Pending

Manufacturer: HydroStraw, LLC 22110 S. State Route 27 Rockford, WA 99030

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HydroStraw, LLC certifies that HydroStraw® Guar Plus contains the following properties and characteristics



### DESCRIPTION

HydroStraw® Guar Plus is designed to provide extra protection on difficult sites where slopes, soil conditions or where weather call for extra erosion control ability. It also includes a high-strength polymer binder to ensure smooth hydro seeder operation. This pre-blended

product eliminates the extra step and mess of field mixing. HydroStraw® Guar Plus includes an additive to reduce guar gum break down by rain fall events. Guar gum tackifier enhances the chemical bond within the mulch matrix for better erosion control, disperses quickly in water, which allows for better blending with seed and fertilizer.

### SPECIFICATIONS

Guar Plus uses a natural guar gum tackifier. The primary fiber shall be produced from annually renewable straw fiber; all fiber materials should be free from plastic materials or other non bio-degradable substances. Fiber shall be of such character that the fiber will disperse into a uniform slurry when mixed with water. Fiber shall be colored green and shall not stain concrete or other surfaces. Fiber and other mulch ingredients shall be free from growth or germination inhibiting ingredients. Mulch Fiber shall be applied as a slurry solution by means of hydroseeder.

It is imperative that the mulch be applied at the specified rate: too wet of a mixture will cause the fibers to be buried into soil. Mulch Fiber shall be applied as a slurry solution by means of hydroseeding. Mulch Fiber shall be applied at the specified rate per the specifications in a uniform manner. Care shall be exercised to ensure that the mulch application is uniform and even throughout the seeded area; mulch shall not be bunched or clumped up on the site. Care shall also be taken as to not create a shadowing effect on the site, mulch applications shall be started on the windward side of the project.



### WARRANTY

HydroStraw, LLC warrants that its products are free from defects and will perform as stated in this literature. If our product does not meet products specifications, notice of failure must be received within 15 days of failure. HydroStraw, LLC will not warrant that the product will perform under unlimited circumstances that are caused by soil conditions, installation, and/or weather variables.

Physical Characteristics	
Toxicity	Non Toxic
Applied Color	Green
Surface Tension	Material will evenly disperse and suspend when agitated in water
Absorbency	When sprayed uniformly at the recommended rate, the mulch fibers form an absorbent mulch cover which will allow percolation of water and increased water infiltration to the underlying soil matrix
Solubility	Mulch Fibers are Non Water Soluble
pH	6.8 +/- 0.5
Average Fiber Length	1/2" +/- 1/4" (1.27 cm +/- .64 cm)

Packaging and Shipping Data	
Bag Size	11.5" x 17" x 25" (29.2 x 43 x 63.5 cm)
Bag Weight	50 lb (22.7 kg)
Pallet	40 Bags, 52" x 45" x 96" (132 x 114 x 244 cm)
Full Truck	22 Pallets, 880 Bags
Packaging	Moisture Resistant Packaging

Composition	
Heat & Mechanically Treated™ (HMT) - Wheat Straw	80.0% +/- 1.0%
Natural Fibers	6.0% +/- 1.0%
Moisture	10.0 +/- 1.0%
Fiber Binder	4.0 +/- 1.0%

Mixture Rates	
Hose Work	60 lbs / 100 gallons (27 kg / 379 liters)
Tower Work	75 lbs / 100 gallons (34 kg / 379 liters)

\*Hose Work Rate may vary dependent on hydroseeder type and/or size and length of hose used.

SLOPE GRADIENT / CONDITION	LB / ACRE	KG / HECTARE
≤ 4:1	2,000	2,250
≤ 3:1	2,000 - 3,000	2,250 - 3,350
≤ 2:1	3,000 - 4,000	3,350 - 4,500
Soil Moisture Retention	2000 - 3,500	2,250 - 4,000