

# GLOBAL SYNTHETICS & ENVIRONMENTAL

*Making Replicated Grass "GREEN"™*

## LiquidLiner™

**DESCRIPTION:** *LiquidLiner™* is an environmentally-friendly and safe polymer emulsion soil-bonding agent which, when properly applied to the aggregate base of an artificial turf, creates a virtually impermeable moisture-barrier and an extremely stable working platform. The *LiquidLiner* soil treatment replaces synthetic geomembrane liners, thus eliminating concerns of punctures, wrinkling, and slip associated with geomembrane use under artificial turf.

*LiquidLiner* is especially appropriate for use under drainage composites installed to provide a vertical-to-horizontal drainage "blanket" under artificial turf - where risks of typical geomembrane liner punctures, wrinkling and slippage are most severe.

*LiquidLiner* exhibits superb adhesion to both organic and inorganic fine particles; excellent film-forming properties over a broad temperature range; remarkable chemical, thermal and UV stability.

The product is environmentally safe and benign as well as biodegradable. It contains no harmful chemical solvents; does not emit volatile organic compounds (VOCs); is non-corrosive and non-flammable; and has NO harmful effects on people, plants, animals, fish or other aquatic life. As such, it may be applied in environmentally sensitive areas, including wetland buffer zones, without adverse effects on groundwater.

*LiquidLiner* may also be used to control dust; storm water run-off stabilization; and slope stabilization.

### INSTALLATION:

**Application Rate:** Apply *LiquidLiner* at a rate of 1000 gallons/ per 80,000 SF (80 gals/SF - typical multipurpose athletic field size). Dilution rate is 2 (two) water to 1 (one) LL, resulting in 3000 gal. total liquid per typical field (240 gal/SF total liquid).

**Procedure:** Bring aggregate base to stable condition (optimal moisture content). Aggregate should support heaviest (highest psi) unit of construction equipment to be employed on the field, without tracking or grade deviation greater than 1/2". Fine grade to a tolerance of no greater than 1/4" deviation under a 10' straight edge, placed in any direction. Compact with a double-drum roller (4-6 ton). Rubber tires are not permitted on finish compaction equipment. After final compaction, NO equipment or vehicles of any kind shall be permitted on the area to be treated.

Spray application of *LiquidLiner* is accomplished by pumping the diluted emulsion from a mobile or stationary tank located just outside the perimeter of the treatment area. Delivery is through a suitable hose of sufficient length to reach all sectors of the treatment area from accessible perimeter locations. The hose is connected to a multi-head spray wand carried by an application mechanic (on foot – no vehicle transport of spray mechanic). It is advisable to segment the area into 2500 to 5000 SF sectors, in order to check application rate and gallonage against required application rate. The first segment should be further sub-divided in order to facilitate determination of proper pump rate and wand settings to achieve desired application rate.

The emulsion should never be allowed to puddle or run. If absorption of the liquid is slow, multiple, lighter applications may be necessary to achieve proper volume of application. Use large spray droplets. Avoid spraying as fine mist.

Coalescence of the emulsion varies with ambient heat and humidity, but normally will produce a stable aggregate matrix that will protect the aggregate base from water infiltration due to rain events (and before drainage composite is installed), within 12 hour of application. Cool temperatures or high humidity will increase the set time. Once the emulsion is fully coalesced and stable, installation of the drainage composite and/or artificial turf and use of required installation equipment may proceed, in the treated area. The treatment will fully protect against destabilization of the aggregate base due to “leaks” in the drainage blanked caused by seam ruptures or punctures.

Do not attempt *LiquidLiner* application if rain is imminent or forecast to occur within 24 hrs. If rainfall occurs before application, optimal moisture content and stability MUST be re-established and maintained in the aggregate base, before proceeding.

The primary cause of cracking in the *LiquidLiner* treated aggregate is the application of load where underlying base material is not fully stable before **LL** application. After installation, load applications should not exceed 200 psi. After turf installation, vehicle load should be limited to ambulance and typical turf maintenance equipment.

**Equipment:** Any machinery capable of spraying water, such as pressurized water truck, agricultural sprayer, hydroseeding equipment, or distributor truck. Tank can be mobile (truck mounted) or stationary plastic tank, 500 to 1500 gals, with visible level readings. Positive placement piston pump capable of pumping a minimum of 50 gals./min. is recommended. Hose should be a minimum 120 ft. with a minimum 1” diameter.

**COMPOSITION:** Aqueous Acrylate Polymer; CAS Reg No: Non-Hazardous %WT: > 40.  
Water; CAS Reg No: 7732-18-5, %WT: < 57.  
Aqueous ammonia CAS Reg No: 1336-21-6 %WT: < 01.  
Additive (proprietary) CAS Reg No. Non-Hazardous %WT: < 03.  
**FORMULA:** Aqueous Acrylate based Polymer Emulsion  
**HAZARD IDENTIFICATION:** ..... NON – HAZARDOUS

For additional information regarding product or procedure contact Global Synthetics & Environmental at:  
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