

SPECIFICATION PROCEDURES FOR THE USE OF GRIPTACK AS A LOCKDOWN OF DEMOLITION DEBRIS PARTICULATES

GENERAL:

The purpose of this specification is to cover proper procedures and application techniques for the use of Fiberlock Technologies Inc GRIPTACK product # 6408 as a demolition interior and exterior lockdown adhesive primer. These surfaces may include, but are not limited to, wood, plaster, brick, and sheet rock, ferrous metal, non-ferrous metal, concrete, asbestos, lead, and other debris materials. This specification has been prepared for application to demolition debris at the Nevada Test Site based on the observations and results of a test application performed November 23, 2009. The intent of that test application was to evaluate the potential for using this product as a method of reducing airborne particulate that could emanate from demolition debris. Participants included representatives of the Nevada Test Site/NST (U.S. Department of Energy, National Nuclear Security Administration), the State of Nevada, Demco, Inc., and Fiberlock Technologies, Inc. The procedures outlined in this specification reflect the application criteria that yielded results deemed satisfactory by NST and State of Nevada upon reviewing varied application approaches and the resulting dry film the following day. Application was to randomly selected construction debris that approximates the expected debris from the upcoming project. The dry film of GripTack deemed acceptable demonstrated adhesion to the debris to which it was applied, limited penetration into semi-porous debris materials, and a tacky finish that could trap airborne particulate deposited onto the dry coating film.

GRIPTACK Procedures for Spraying on Debris Material

PRODUCT REQUIREMENTS

Any product used for the procedures outlined in this specification shall have the following product requirements:

GripTack Demolition Adhesive/Lockdown has the following characteristics:

- General Formulation: Styrene-Butadiene Rubber Latex Emulsion
- Solids by Weight \pm 2%: 50.0%
- Solids by Volume \pm 2%: 50.0%
- Viscosity at 70°F: 50-60 Krebs Units
- Calculated VOC Content: 0 grams/liter
- Weight Per Gallon: 8.35 lbs/gal.
- Dry Finish: Clear, Tacky to Touch
- Decomposition Profile: Manufacturer must demonstrate that their product will pass the State of California Waste Extraction Testing for toxic metals content (*See W.E.T. Test found at State of California Code of Regulations, Title 22, Section 66261.24 and Section 66261.126, Appendix II*). Testing performed to demonstrate compliance with W.E.T. must be documented with test report data from an NELAP (National Environmental Laboratory Accreditation Program) accredited laboratory. In addition, the dry film must be capable of gradual degradation in the presence of sunlight (UV).

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MATERIAL PREPARATION:

Thirty minutes before application, thin GripTack 10% to 15% maximum with clean water, and agitate. Thinning can be accomplished to this percentage range by mixing 1½-2¼ cups of water into each gallon of GripTack.

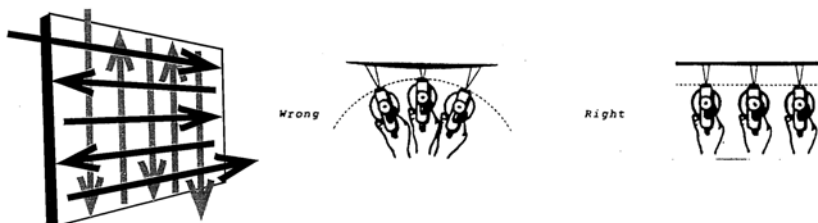
APPLICATION

Spray Griptack no more than 12-18 inches from the debris surfaces in order to maximize both performance and coverage. GripTack needs to be applied liberally to any materials that could release airborne particulate. GripTack will be milky translucent white at the time of application so the user can observe and track adequate coverage, then it will dry clear. GripTack is a low viscosity product formulated to yield limited penetration of semi-porous and porous materials. However, application to debris on the outside of a debris pile does not ensure delivery of a sufficient wet film to underlying materials. Therefore, in order to assure an application to debris as it is accumulated, it is recommended to consider application on a regular basis as debris is collected and piled. This can be necessary to maximize the probability that materials are adequately coated to reduce possible particulate emission. In addition, application may be advisable at such time when the debris is disturbed (for example, at the time of loading into vehicles for final disposal).

All debris materials are not the same, and will not absorb the Griptack at an identical rate. The applicator will have to observe material application and absorption, and adjust accordingly throughout. It should also be noted that for some materials it may be beneficial to precoat with Griptack prior to demolition.

When applying the Griptack material a cross hatch technique should be used with a 50 % overlap for maximum saturation and a full and equal application to all debris. The following is a description of the cross hatch technique:

always keeping the gun tip parallel to the surface at a distance between 12" to 18" inches. The speed at which the product is applied depends on the system used. Normally a slow to moderate sweeping stroke of first horizontal followed by vertical passes will afford the desired results. If necessary, an angular mist coat may be applied to even out any irregularities.



METHODS OF APPLICATION:

Airless Spray: Griptack can be successfully applied with most major brands of airless spray equipment. Fiberlock recommends Titan spray equipment for this product. The minimum size machine from Titan that is recommended is a Titan 640ix. See table below for recommended spray settings.

Typical settings for airless spray equipment:

(Reversible) Tip Orifice	Tip Fan Size	Operating Air Pressure	Airless Hose ID	Min. Pump G.P.M.	Hose Length
0.015 to 0.019	Flexible	1500 – 1800 psi	¼"	0.50	50' -100'

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**It is recommended that the filter in the grip of the spray gun be removed prior to application. This will prevent the machine from clogging. Filter is generally not needed for the procedures outlined in this specification since this use is not finish painting.

When GripTack is applied at 1500 psi the applicator can expect a coverage rate up to the following (by using a cross-hatch pattern):

Tip Size	Coverage
.515	5 wet mills
.0517	11 wet mills
.619	12 wet mills

To maximize coverage and reduce overspray, change tips on spray guns every 200 gallons. Worn spray tips can result in inefficient product use and increase cleanup of adjacent areas.

CLEANUP:

See Product Data Sheet (PDS) for general cleanup procedures. Follow manufacturer's directions when cleaning airless spray equipment.

Fiberlock recommends that if spraying is stopped for more than 15 minutes (especially in the summer heat), all spray lines should be cleaned accorded to manufacturer's directions.

EXPOSURE / WEATHER CONDITIONS: APPLICATION & STORAGE

It is recommended to start spraying Griptack early in the morning, after sunrise, and when the temperature is rising. Wet film coalescence will occur at a very slow rate when air and surface temperatures are below 45°F, and will cease entirely when wet films are exposed to surfaces below 32°F. Ideally, spraying should stop with enough time to ensure that previously sprayed material has begun to coalesce before surface and air temperatures fall below 38°. GripTack wet films that have not completely coalesced when cold temperatures occur may resume coalescence when warmer conditions return, however, film formation may be whitish instead of clear, and cure may be uneven.

Due to heat in summer months, applicators should be aware that temperatures above 110°F could interfere with proper coalescence from a wet to a dry film.

Storage of Griptack should be inside to avoid freezing (KEEP FROM FREEZING **) in the winter and over heating in temperatures above 100°F.** Applicators should utilize available precautions to ensure that the product does not overheat on the project site during application as well.

This product has a limited shelf life. Ideally, the project should be managed such that product is utilized within 6 months of manufacture.

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JOBSITE CONDITIONS:

Apply Griptack only under the following prevailing conditions:

- Air and surface temperatures not below 38°F during application, and for 12 hours afterwards.
- Provide adequate illumination and ventilation.
- In accordance with all applicable state, and local regulations.

IMPORTANT INFORMATION

This specification and procedures information does not fully describe all the limitations, warnings and precautions related to the products described herein. This specification has been prepared for application to demolition debris at the Nevada Test Site based on the observations and results of a test application performed November 23, 2009. Other applications of this product may involve different application methods and recommendations specific to the project at hand. For other projects, a similar test application is always recommended prior to full-scale application, and Fiberlock can be contacted to discuss questions and considerations on any project. To locate your Fiberlock Area Manager, please visit the website at www.fiberlock.com, or call 800-342-3755. Any federal, state, and local regulations applicable to the project supersede the recommendations of this specification.

GripTack is not an encapsulant for the abatement of hazardous materials, including asbestos and lead-based paint. GripTack is a demolition adhesive and lockdown for multiple uses, but it should not be used for long-term or permanent management of hazardous substances in place. Variations in temperature, materials and other factors will affect the results and performance of the procedures outlined in this specification.

GripTack will deteriorate from exposure to ultraviolet light. When used outdoors as a method to reduce airborne particulates that could be emitted from demolition debris, project management should plan to send debris to final disposal within 1 month.

Reference should be made to the Product Data Sheets for complete technical information on products manufactured by Fiberlock Technologies, Inc. Material Safety Data Sheets (MSDS) should be referred to for health and safety information. Copies of all product information can be obtained by calling or writing Fiberlock Technologies, Inc., or visiting our website at www.fiberlock.com.

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