



SAFE ENCASUREMENT SYSTEMS-MIDWEST

**SPECIFICATION NO. 01-3
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APPLICATION GUIDELINE FOR THE ENCASUREMENT OF ASBESTOS

INTRODUCTION

Encasement became a U.S. EPA (Environmental Protection Agency) accepted abatement action in July, 1990 when the EPA issued Publication NO. 20-T-2003, the "Management Planners Guideline for Managing Asbestos in Place". Encasement is described as; directly covering the ACM with a liquid-applied, hard-setting sealing material that forms a monolithic, seamless jacket that totally encloses (encases) the ACM, leaving zero air gap. The Safe Encasement system consists of SE-110 Penetrating-Stabilizer (primer) which penetrates into the asbestos, rendering it partially or totally non-friable depending on the thickness and density of the asbestos and the depth of penetration achieved. After the SE-110 has dried (usually 3-4 hours to overnight) the SE-120 Protective Skin (topcoat) is applied. These materials, which are spray-applied, bond together forming a tough, flexible, composite protective barrier. Both products are water-based acrylic elastomers that are spray-applied over asbestos fireproofing, thermal insulation, transite, textured ceilings, grouts, paints, and other asbestos-containing surfaces.

APPLICATION

All of the engineering controls required for asbestos removal are usually required when encasing asbestos which could be friable (e.g. containment, negative air, personnel protection, etc.). Any commercial airless sprayer capable of developing up to 3,000 PSI may be used. The choice of tip size depends to some extent on the size of the job and the width of the narrowest structural member or pipes to be encased. Typically, orifice sizes from 0.019 to 0.025 inches are recommended. For narrow objects a narrow spray pattern should be selected to minimize over-spray losses. The coverage rate for both coating materials varies with the thickness of the asbestos and irregularity (configuration) of the surface. Please refer to Technical Bulletin No. 01-1 for more information on coverages or consult with your Safe Encasement Systems distributor or sales representative.

The applicator should practice on a flat surface such as a piece of cardboard or plywood to develop a "feel" for how fast he can move the sprayer over the surface to achieve the desired coverage. On such a surface a wet film gauge can be used to determine the exact wet film thickness in mils. From this exercise one can develop both the hand movement rate and an eye for the glean which represents the desired wet film thickness. It is usually advisable, in order to coat the irregular surface completely, to make two passes with the sprayer angled at roughly 20°-30° to the surface in the direction of hand movement on each pass. In addition to the guidelines provided in Technical Bulletin No. 01-1 on coverage rates, more primer should be applied (lower sq. ft. per gallon) with thicker less dense asbestos fireproofing where greater penetration appears attainable. The coverage rate can be

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checked periodically by monitoring the rate of consumption of coating material and the surface area covered.

It is usually advisable to apply the primer on one day and the topcoat on the next day; though the topcoat may often be applied in as little as 3-4 hours depending on the drying conditions. The primer should be applied using the lowest pressure that results in a good spray pattern to minimize any possibility of disturbing the asbestos. The primer does not dry to a tack-free condition. If the surface is touched and primer comes off on the applicators finger, more drying time should be allowed. Also, the primer goes on milky white and is dry enough to overcoat when it is clear.

The encasement system is sufficiently dry within 2-3 days that the containment can safely be removed and the area re-occupied. However, complete drying/curing can take at least 10-14 days with good drying conditions (significantly longer if drying conditions are poor). It is generally recommended that 30 days be allowed for complete drying/curing before any physical testing of the encasement system is carried out. Some forms of mechanical penetration, such as shooting fasteners through the encasement system, can safely be done within 7-10 days in most cases.

STARTUP AND CLEANUP

It is best to start by spraying water and switching over to paint. Continue spraying into a bucket until full strength paint emerges. You are then ready to begin spraying the coating material onto the asbestos. The spraying equipment should be cleaned by flushing with copious quantities of water as soon after use as possible.

FLOOR PROTECTION

In addition to the usual plastic on the floor of the containment area, it is recommended that an additional layer of plastic be used and then removed after the primer has been applied. In this way the remaining work can be carried out without the workers having to walk on a sticky surface.

CAUTION

The products should not be applied when it is possible for the temperature to fall below 32°F within 15-30 days following the application. Because this coating system is quite a bit thicker than conventional paints, it takes much longer to dry/cure fully.

FURTHER INFORMATION

For further information or answers to questions, please contact Safe Encasement Systems-Midwest at the number below or the nearest sales representative or distributor.

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