



March 03, 2008

Re: Fire & Life Safety Requirements

Dear Fire Marshall or Inspector,

This letter is intended to assist you in understanding the Armadillo spray-on protective linings process and answer any questions regarding the flammability of the Armadillo Liners products. Also, we are providing information on relevant fire codes pertaining to the Armadillo Liners. This includes the appropriate sections of the 2003 Uniform Fire Code (UFC), and the National Fire Protection Association (NFPA).

Armadillo Liners polyurethane linings are 100% solids and do not contain any solvents or volatile organic compounds (VOCs). The lining is created by the reaction of two liquid components - an isocyanate and a resin. Once the two liquid raw materials are properly mixed and applied, they react completely to form an inert polymer that is completely harmless. The flashpoint for the isocyanate is 427 °F and the resin is 392°F making both components non-flammable and non-combustible by the standard definitions.

The Armadillo Liners spray-on bed liner process has the following basic steps:

1. Cleaning the truck bed – blowing and wiping it down with a rag dampened with acetone as necessary. Technician wears a cartridge respirator when wiping with acetone.
2. Masking the truck with tape and paper.
3. Lightly sanding the bed with a cup-brush sander or by hand.
4. Final wipe down with acetone (using a dampened rag) to pick up dust and dirt.
5. Applying the Armadillo Liners polyurethane lining using the proper personal protective equipment (PPE) in a ventilated application room.
6. Final un-masking and trimming.

The dealer will use small quantities of acetone in order to clean the truck bed. A rag dampened with acetone is used to wipe the truck bed clean of any dirt, oil or grease residue. A plunger can is used to dampen the rag and to avoid spilling excess acetone. For this cleaning, the shop will not need more than 1-2 gallons of acetone on site at any given time. At no point in our process is a flammable material sprayed or atomized.



The lining is applied in an application room to contain any overspray and chemical vapors that may be generated. A polyethylene curtain can be used because the polyurethane overspray easily peels off the plastic curtain. This allows the dealer to keep the application room clean and free from excessive overspray build-up on the walls.

The application room also has an exhaust fan to clear the air of any overspray and chemical vapors. The exhaust fan uses simple particle arrestor filters (like furnace filters) to capture any small polyurethane particles.

The materials involved in this operation are two part materials classified as Class III-B combustibles and irritants. A complete list of all materials being stored or used and their quantities is attached. Quantities will be maintained below the exempt amounts allowed in Table 3-D of the UBC, Tables 7902.1-A (container type and size), 7902.5-A and 7903.2-B of the UFC for Class III-B combustible liquids. Also, quantities will be maintained below the exempt amounts allowed for materials classified as irritants (Table 8001.13-B of the UFC.) Therefore, a flammable or combustible liquids permit, or a permit for material classified as an irritant, will not be required.

A spray booth permit should not be required since the material being applied is not flammable. Also, since the material is being applied with low temperature, low pressure equipment, it is not atomized or finely divided. The application process does not present the hazards usually associated with spray applications of Class I flammable liquids, such as lacquer base paints and varnishes.

NFPA 33, Chapter 14 (2003 Edition) Miscellaneous Spray Operations

This product and application most closely resemble an automotive body lining operation as defined in NFPA 33, Chapter 14. If adequate ventilation is provided, this operation is exempt from the spray booth provisions of the UFC for spray finishing operations.

As the high performance coatings are applied, the Armadillo product will harden within 60 seconds or less. The 1% of lost product is not fugitive and is found on masking paper, floor and walls of application area. However, mechanical ventilation will be provided for adequate air changes to comply with Chapter 12, Section 12-1 of NFPA Standard No. 33.

PRODUCT INFORMATION

All new Armadillo Liners dealers offer the same service and utilize the same processes and



materials used by all of our other dealers currently in operation throughout the United States and other Countries. The following materials are used at Armadillo Liners dealerships.

Armadillo 2:1 and 1:1 is a polyol resin Blend, is a Class III-B combustible liquid with a flash point of 392°F. Armadillo 2:1 and 1:1 (MDI Isocyanate) is a Class III-B combustible liquid with a flash point of 427°F. Quantities in open and closed use **do not exceed** the exempt amounts of allowable Class III-B combustible liquids for storage, use and handling, per the 2003 edition of the Uniform Fire Code.

Armadillo Liners will also use minimal amounts of Class I flammable liquids such as Acetone and Lacquer thinner, for cleaning and wiping when necessary. The Uniform Fire Code also exempts the use of 30 gallons of Class I-A flammable liquids for storage and use in approved safety containers, with not more than an aggregate amount of five to ten gallons in use. Each container shall not be larger than an approved one-gallon "safety can" meeting the minimum requirements of the fire code.

Sincerely,

Scott Wilson
President of Armadillo Liners, LLC