

# F 100E High Temperature Ablative

## Dyna Therm

**Technical Bulletin**  
**November, 2008**

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**PRODUCT DESCRIPTION** meets Mil-C-47244 (MI) MIS 31865

Flamemaster F-100E is a room temperature curing; high temperature resistant ablative coating for use in areas subject to exposure to extreme heat and high erosion such as experienced in solid propellant missile launchings. Flamemaster F-100E is a rigid, two-component epoxy based compound designed for trowel or molding application. F-100E supplied in a Forest Green color for application to tracked vehicles of the army and marines. Flamemaster F-100EN is a deck gray shade for use on ships of the navy.

Color and designation F-100E = Forest Green F-100EN = Deck Grey
Coverage Approx. 12 sq. ft/Gal at 1/8" thickness
Pot Life 1 hour minimum at 75°F
Maximum Tack Free Time 8 hours at 75°F
Cure Cycle 24 hours at 75°F
Specific Gravity 1.5
Shelf life 1 year

### APPLICATION AND MIXING INSTRUCTIONS

For satisfactory performance, the strict adherence to these instructions is mandatory. Place emphasis on insuring that the surface on which the material is applied is clean and free from all foreign matter (moisture, rust, oil, etc.). Thoroughly mix the F-100 and apply at the correct environment (temperature, humidity) using proper trowelling techniques. These requirements apply for refurbishment as well as an original application.

1. Instructions for applying Flamemaster F-100E to metal surfaces.

A. Environmental Requirements

1. Ambient and metal surface temperatures for mixing and application of ablative coating must be between 50°F and 100°F.
2. If conditions warrant, erect a cover or shroud over the work area in order to insure a clean, dry, surface during the application and initial cure of F-100E

B. Surface Preparation and Cleaning

1. Cover and bearing seals with tape or appropriate plastic cover to prevent entry of foreign material.
2. Where ablative is to be applied clean metal surfaces by chipping, scraping or wire brushing or equivalent method. Use a vacuum or equivalent method to remove chips and grit from the areas just cleaned.
3. Use a "Vacu-blaster" to further clean all areas. Again use a vacuum or equivalent method to clean all areas.

Dyna Therm Products

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This commodity is a defense article, regulated by the International Traffic in Arms Regulations (ITAR) and requires a State Department License for transport outside of the USA per CFR Title 22 Section 121.1 paragraph a) defense articles, b) significant military equipment (SME), and c) Missile Technology Control Regime Annex (MTCR). This is an ablative material - Category IV (f) on the U. S. Munitions List (USML) and Item 2 - Category I (b) (1) of the MTCR.

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4. Clean surfaces thoroughly with a suitable solvent and wipe dry with lint free rags.

## C. Mixing and Application

1. Flamemaster supplies F-100E in pre-measured one-gallon kits or in bulk packaging. The mix ratio of the two components is 150 parts by weight of Part A to 100 Parts by weight of Part B.
2. Mix thoroughly with a power mixer until obtaining a uniform consistency and color. There should be no light or dark streaks in the blend.
3. Apply the material with a trowel, using an even back and forth swirling motion. Apply pressure with the trowel to insure intimate wetting of the surface prior to achieving the desired thickness.

## D. Finish

1. After one-hour cure, provide a smooth surface by going over the coating with a trowel dipped in water or solvent.
2. For a non-skid surface, a notched trowel may be used or a grooved polyethylene de-airing roller dipped in water and rolled over the curing surface will produce grooves.
3. When work is completed, promptly clean all equipment and tools used in the application by washing in warm, soapy water.

## E. Refurbishing

1. If surface of ablatives is charred, remove all loose char using a wire brush until virgin material is apparent.
2. Wipe all prepared surfaces with an appropriate solvent.
3. Proceed as with "C" and "D" above.

## SAFETY

Prior to use consult the MSDS for health, safety and disposal requirements

We have obtained the information in this MSDS from sources that we believe to be reliable. However since much of this information has been received from sources outside of the company, it is provided without any warranty expressed or implied regarding its correctness or suitability for specific situations. The conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer, which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller. However since much of this information has been received from sources outside of the company, it is provided without any warranty expressed or implied regarding its correctness or suitability for specific situations. The conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge.

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