

# V-455 Vinyl Coating

**Dyna Therm**

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Technical Bulletin  
November 2012  
Supersedes November 1992

## MATERIAL DESIGNATION

Dyna Therm V-455 is a thixotropic vinyl coating capable of heavy one-coat applications on steel and aluminum. The coating displays exceptional chemical resistance and is formulated to resist the effects of short term exposure to storable liquid missile propellants.

Tests have shown V-455 coating to be acceptable for use in areas subject to spillage and fumes of hydrazine/UDMH and nitrogen tetroxide. It is recommended that the coating and primer be tested to meet the criteria established for the particular application.

## Typical Properties

Viscosity	85 – 95 KU
Wt. per gallon	9.9 - 10.8 lbs
Solids	49% minimum
Coverage	80-110 Sq. ft. /gal. ( 5 mils dry)

## SURFACE PREPARATION

### **A. Ferrous Metals**

1. Surfaces to be coated must be clean
2. Apply V-400 primer over a sandblasted or phosphatized clean surface.

### **B. Aluminum Alloys**

1. Surfaces to be coated must be clean
2. Apply V-400 primer over chemically pretreated surfaces (Iridite 14-2 or equal)

## APPLICATION METHODS

### Vinyl Primer – Spray equipment recommendations (or equivalents)

Model	Air Nozzle	Fluid Nozzle	Needle
Binks #7	36	36	36
Binks # 18	66	66	65

### **Spray –**

For coating steel, adjust the viscosity of the primer with V-400 Thinner to 30-34 seconds at 77 deg. F  $\pm$  2 deg. F with a # 3 Zahn cup and the coating thickness should be 1  $\pm$  .2 mils.

### **Brush –**

Use for touch-up work only. Allow primer to air dry for at least two hours before top-coating. The primed surface shall be free from blisters, pits or embedded dirt.

### Vinyl Coating –

The equipment and pressure recommendations used to apply the V-400 primer should be proper for the application of the vinyl coating.

### **Spray –**

For aluminum, reduce the vinyl coating with V-400 thinner to a viscosity of 29-31 seconds at 77 deg. F  $\pm$  2 deg. F using a No. 3 Zahn cup. Coating thickness shall be 4  $\pm$  1 mils.

For steel, reduce the vinyl coating with V-400 thinner to a viscosity of 20-25 seconds at 77 deg. F  $\pm$  2 deg. F using a No. 5 Zahn cup. The coating thickness shall be 6  $\pm$  1 mils. The vinyl coating shall be applied as west as possible, nearly to the point of sagging.

Dyna Therm Products

Manufactured By The Flamemaster Corporation - [www.flamemaster.com](http://www.flamemaster.com)

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**Brush - Use for touch up only.**

**At least 4 hours drying is recommended between coats if additional film thickness is required.**

**Because of the thickness of the coating, it will remain soft until all of the solvents have evaporated. Exercise care in handling until the coating has cured for at least 16 hours.**

**The coating requires at least 14 days to cure and should not be exposed to the effects of the propellant for 30 days.**

**Methyl ethyl ketone may be used to clean equipment.**

**CAUTION: Do not use MEK as a thinner.**

## **SAFETY**

All materials in the V-455 should be protected from heat and open flame. Avoid prolonged breathing of vapor and unnecessary contact with the skin. Use with adequate ventilation. Do not take internally. After using, or before smoking or eating clean hands thoroughly with soap and water.

Refer to product MSDS for storage, handling, and disposal requirements. Product is intended for industrial use only. Keep out of the reach of children.

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 manufacturers sole responsibility shall be to replace that portion of the product of this manufacturer that proves to be defective. Neither seller nor manufacturer shall be liable to buyer or any third person for any injury, loss, 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.