# **VOLATILE FREE, INC.**

## VFI<sup>®</sup>-5105 5 PCF Rigid Polyurethane Foam

**VFI®-5105 5 PCF Rigid Polyurethane Foam** is a 5lb per cubic foot, rigid pour foam that has good compression strength with a slow initial rise and fast cure speed. VFI-5105 is a two part, one to one by volume that works in any machine injected system while also having a slow enough gel time to allow hand pouring. A fast, final cure speed creates a faster demold time which makes more parts quicker for a quicker return to service. VFI-5105 Rigid Polyurethane Foam helps decrease the cost of plastic parts while still being able to have the necessary final structure of a top coat.

## Technical Usage

VFI®-5105 5 PCF Rigid Polyurethane Foam has been used in the following applications and may be used in many more applications. Contact Volatile Free, Inc. for more information on any specific applications.

- Cast Stone
- Manufactured Stone
- Molding and Casting
- Theming

## Color

Standard color available is neutral. For additional premium colors or color matching services contact Volatile Free, Inc.

#### UV Stability

This product is **NOT** UV color stable and has no long-term UV testing. For additional information contact Volatile Free, Inc.

#### Overage/Thickness Requirement

Contact Volatile Free, Inc. for thickness requirements and specifications.

### Storage Stability/Shelf Life

12 month shelf life from date of manufacture when stored and sealed in unopened containers between 40°F - 75°F. Opened containers may be resealed with a nitrogen purge, but shelf life will be significantly shortened. Material should be brought to a minimum temperature of 65°F before use.

## Equipment

For instructions and equipment requirements, contact Volatile Free, Inc.

### **Surface Preparation**

All surfaces should be cleaned, prepped and free of any oils, dirt or debris. To demold, material must be non-porous or sealed with a chemical sealant. A release agent should be used on all products intended to be demolded. Contact Volatile Free, Inc. with any additional questions.

#### Mixing

Pre-mixing Poly (B) components until uniform is required before combining Poly (B) and Iso (A). If pouring material by hand pre-weighed poly (B) must be poured into pre-weighed Iso (A) and then mixed until uniform and transferred to a new container to mix until uniform again before use. Product must be fully mixed and used before the duration of the cream time (initial rise). Mix times may vary depending on volume and mixing method. Please contact Volatile Free, Inc. for more information on any specific mixing questions and requirements.

## Material Application

Temperature should be between 50°F - 100°F when the product is being used. The pot life will shorten with any increases in temperature beyond 72°F. Ensure surfaces in contact with the material are properly sealed and released before mixing to prevent any unwanted adhesion. Contact Volatile Free, Inc. for more information on recommended release agents or sealants.

#### Primers

Contact Volatile Free, Inc. with any primer questions.

#### Cleanup Solvent

Preferred cleanup solvent is xylene or MEK. Please contact Volatile Free, Inc. for more information on cleanup of equipment and tools.

## Thinning

Do not thin prior to application.

### Precautions

Contains isocyanate that may be irritating to the skin and is toxic if inhaled as particulate matter. See Safety Data Sheet for complete safety data. Do not add any foreign material to this product. Avoid prolonged breathing of vapors and prolonged or repeated skin contact. Use only with adequate ventilation.

## VFI®-5105 5 PCF RIGID POLYURETHANE FOAM

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## Physical Properties

Solid Material Density	5 PCF
Dimensional Stability	<1%
Compressive Strength	>100 psi
Closed Cell Content	>90%

#### Liquid Properties

Solids by Weight	100%
Solids by Volume	100%
Specific Gravity A side	1.22 g/mL
Specific Gravity B side	1.06 g/mL
Specific Gravity Mixed	1.14 g/mL
Ratio by Volume (A:B)	1A:1B
Ratio by Weight (A:B)	100A:86.20B
Viscosity A Side	175 cps
Viscosity B Side	1500 cps
Gel Time	200 seconds
Cream Time	52 seconds
Rise Time	200 seconds



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