



## SHIP-SAFE STANDARD V-100 EPOXY GROUT



**SHIP-SAFE STANDARD V-100 EPOXY GROUT**

Reformulated version of Standard V-100 Epoxy Grout which may be shipped under non-hazardous classification, eliminating delays and haz-mat fees. Also complies with E/U non-hazardous shipping regulations.

As with all the V-100 family of grouts, Ship-Safe Standard V-100 offers excellent physical properties, mixing and placing characteristics.

A two component, 100% solids, flowable epoxy resin system for applications requiring high strength, high resistance to impact and chemical resistance. Other materials, such as concrete or weaker grouts may develop structural flaws when subjected to high concentrated loads.

Ship-Safe Standard V-100 is an excellent choice for:

- Grouting machine bases
- Setting anchor bolts
- Setting leveling wedges
- Setting sole plates
- Repairing deteriorated foundations

The rapid strength development of Ship-Safe V-100 permits loads to be applied sooner after grouting than with other materials.

### IMPORTANT ADVANTAGES:

#### PERMANENCE

Eliminates the need for periodic re-grouting. Saves downtime, labor and lost production. Resistance to oils, greases, acids, alkalis and solvents is much greater than that of cement-based materials. Tensile strength is at least 10 times

that of concrete and the compressive strength is about 5 times that of concrete.

**NEW**  
**SHIPS NON-HAZARDOUS**

#### PACKAGING

Ship-Safe Standard V-100 is packaged in a kit with the base resin packed in an oversized container large enough to serve as a mixing vessel. The hardener portion of the kit is added to the base resin at the job site. A stirring paddle is included, which will fit a standard 1/4" electric drill. After a mix time of 2-3 minutes a 10-15 minute working time remains for placement of the material.

#### EASY, FLOW-INTO-PLACE INSTALLATION

Flows into spaces as small as 1/2" under machines and fills in completely before solidifying.

#### REGROUTS

No need to move equipment or break connections. Just raise equipment 1/2" to 3/4" and regROUT with Ship-Safe Standard V-100.

#### TYPICAL POUR DEPTH

Thickness 1/4" up to 1" (unconfined), up to 1 1/2" under plate. (Multiple layers may be used for thicker pours.)

#### SMOOTHER MACHINE OPERATION

Ship-Safe Standard V-100 survives impact and vibration as well as reinforced rubber materials and will not delaminate under the most severe shock loads.

#### FAST CURE

At 77°F, a 1/2" thickness will set up for use in 8 hours.

#### CURE TIME:

The cure time (the time before the grout is strong enough for use) will also depend on the air temperature and the temperature of the floor and machinery being grouted. The average cure time from the last pour to machinery start-up will be 8 hours at 77°F. In cool weather, the grout will cure and develops strength more slowly than in hot weather. Remember that the temperature of the foundation concrete must be taken into account along with the air temperature when assessing the cure time needed.

#### PACKAGING/YIELD

11# Kit = .10 cu. ft. (181.5 cu. in.)  
22# Kit = .21 cu. ft. (363 cu. in.)  
55# Kit = .53 cu. ft. (907.5 cu. in.)

Physical properties shown are the result of independent laboratory testing performed per industry recognized test procedures. Laboratory properties aid in determining suitability of the product for the intended application. Field test results may vary due to procedures or ambient conditions such as temperature and humidity. Laboratory reports are available on request.

*Consult the specific Material Safety Data Sheets (MSDS) for all safety data.*

#### PHYSICAL PROPERTIES

Color	Gray Green
Compressive Strength (ASTM D-695)	
8 hours	4,000 psi
1 day	9,200 psi
3 days	13,000 psi
7 days	15,000 psi
Compression Modulus (7 days)	348,000 psi
Tensile Strength (ASTM D-638)	3,900 psi
Heat Deflection Temperature (ASTM D-648)	133° F
Maximum Service Temperature	175° F
Placement time (@ 72° F)	10-15 min.
Tensile Modulus	362,000 psi
Mixed Viscosity	10,000 cps
Specific Gravity	1.7
Hardness (Shore D)	86
Density (cured)	105 lbs./cu. ft.
Creep Test (ASTM C-1181)	
600 psi @ 150° F cured 24 hours @ 70° F 16 hours @ 150° F	1.98 x 10 <sup>-2</sup> in./in.
Coefficient of Thermal Expansion (ASTM D-696)	2.0 x 10 <sup>-5</sup> in./in./° F

# SHIP-SAFE STANDARD V-100 EPOXY GROUT BASIC APPLICATION TECHNIQUES

## CONCRETE SURFACE PREPARATION

Remove all oil, grease and contamination from concrete. Remove loose and weak concrete from the foundation surfaces. The concrete must be dry and have no standing water.

## METAL SURFACE PREPARATION

Base plates or soleplates to be grouted should be clean and free of rust, dirt, and other surface contaminants.

## FORMING

Method of forming must provide for rapid continuous placement of grout. Adequate clearance for grout placement and head must be provided. Forms should be water-tight and greased or waxed to allow easy removal.

## PREPARATION OF EPOXY GROUT

Store the material between 70-80°F. Do not mix until ready to pour. Generally, two groups working with the grout (one mixing and the other pouring) is best.

## MIXING TWO PART EPOXY

Two part formula contains resin, hardener

and a mixing paddle. Thoroughly pre-mix the resin, then pour the hardener into the resin container slowly and mix with the paddle in a variable speed electric drill until thoroughly blended. Make sure there are no colored streaks left in the mixture.

## POURING

Always pour from one side to prevent air pockets under the equipment. Continue pouring until the grout has penetrated to the other side of the equipment, then move the pouring spout along the same side of the equipment to where the grout has stopped. The grout will self-level, but may need to be helped to flow under the equipment, especially in colder conditions.

## PLACEMENT TIME

The time you have before initial set depends on the air temperature, the ambient temperature of the foundation and equipment, and the temperature of the grout. In cooler conditions you will have more time to place the material, and in warmer temperatures you will have less time.

## CURE TIME

The cure time (the time until the grout is

strong enough for use) is temperature dependent. Special precautions must be taken when temperatures are below 50°F or above 95°F to assure the grout will properly cure. Consult the factory for details.

## TEMPERATURE CONSIDERATIONS

The temperature of the kit components (resin and hardener) at the time of mixing and placement has a significant effect on both the ease of mixing and placement of the mixed material. For optimum results (in ease of mixing and placement, as well as in the final strengths attained) it is very important that both components are at a temperature between 70°F and 80°F at the time of mixing and placement. Storage of both components at a temperature within this range for a minimum of 18 hours before mixing is recommended.

## CLEAN UP

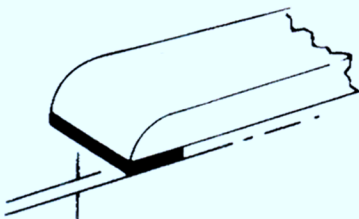
Uncured grout can be easily removed with soap and water. Any grout that has started to set can be removed using isopropyl alcohol or a non-flammable environmentally responsible epoxy solvent.

## PRECAUTIONS

*Always wear appropriate Personal Protective Equipment. MSDS are available on our web site at [www.unisorb.com](http://www.unisorb.com). Avoid inhaling fumes and keep the work area well ventilated. Wash skin and clothes with soap and water immediately (before grout cures).*

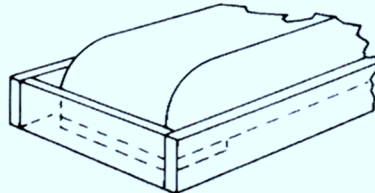
### APPLICATION TECHNIQUES FOR EPOXY GROUTING

1



**LEVEL EQUIPMENT WITH  
1/2" - 1 1/2" CLEARANCE**

2



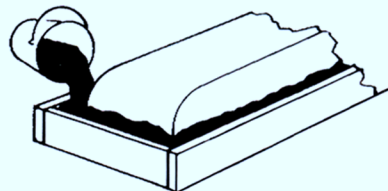
**FORM PERIMETER LEAVING  
ADEQUATE ROOM FOR  
PLACEMENT AND VENTING**

3



**MIX RESIN AND HARDENER**

4



**POUR UNDER EQUIPMENT  
AND ALLOW TO CURE**

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