



INSTALLATION TECHNOLOGIES

# DATA SHEET

## WTF-E V-100™ EPOXY GROUT

Bulletin No.  
 GB-0151-1.1, Rev.4  
 5/24/17



**WTF-E 1.4 Cu. Ft. Kit**

- Meets requirements for “High” effective bearing area per ASTM C-1339.
- 10,185 psi compressive strength in 8 hours.  
14,020 psi compressive strength in 24 hours.
- Virtually dust free.
- No clean-up required (mixed in disposable pails).
- Easy mixing - no special mixing equipment needed.  
Mix with drill and paddle or paddle type mortar mixer.
- High Flowability for easy pours.
- Deep pours and large diameter holes can be done with multiple lifts.
- Contains no BGE or free silica.
- Extra resistant to UV rays and water.
- Most experienced field support team in the industry.

WTF-E V-100 Epoxy Grout is a three-component, 100% solids epoxy resin system. It is specifically designed for applications requiring high mechanical strength due to high loads. WTF-E offers resistance to temperature, humidity, chemical environments and most acids.

WTF-E V-100 Epoxy Grout is formulated for medium thickness pours ranging from about 3/4” to 3” or more in a single pour. Deeper depths are possible with proper attention to the conditions and size of the pour. Deep pours may be accomplished by using multiple lifts. Consult Unisorb Engineering for design help for your application.

Its tremendous compressive strength and high effective bearing area make it especially well suited for severe

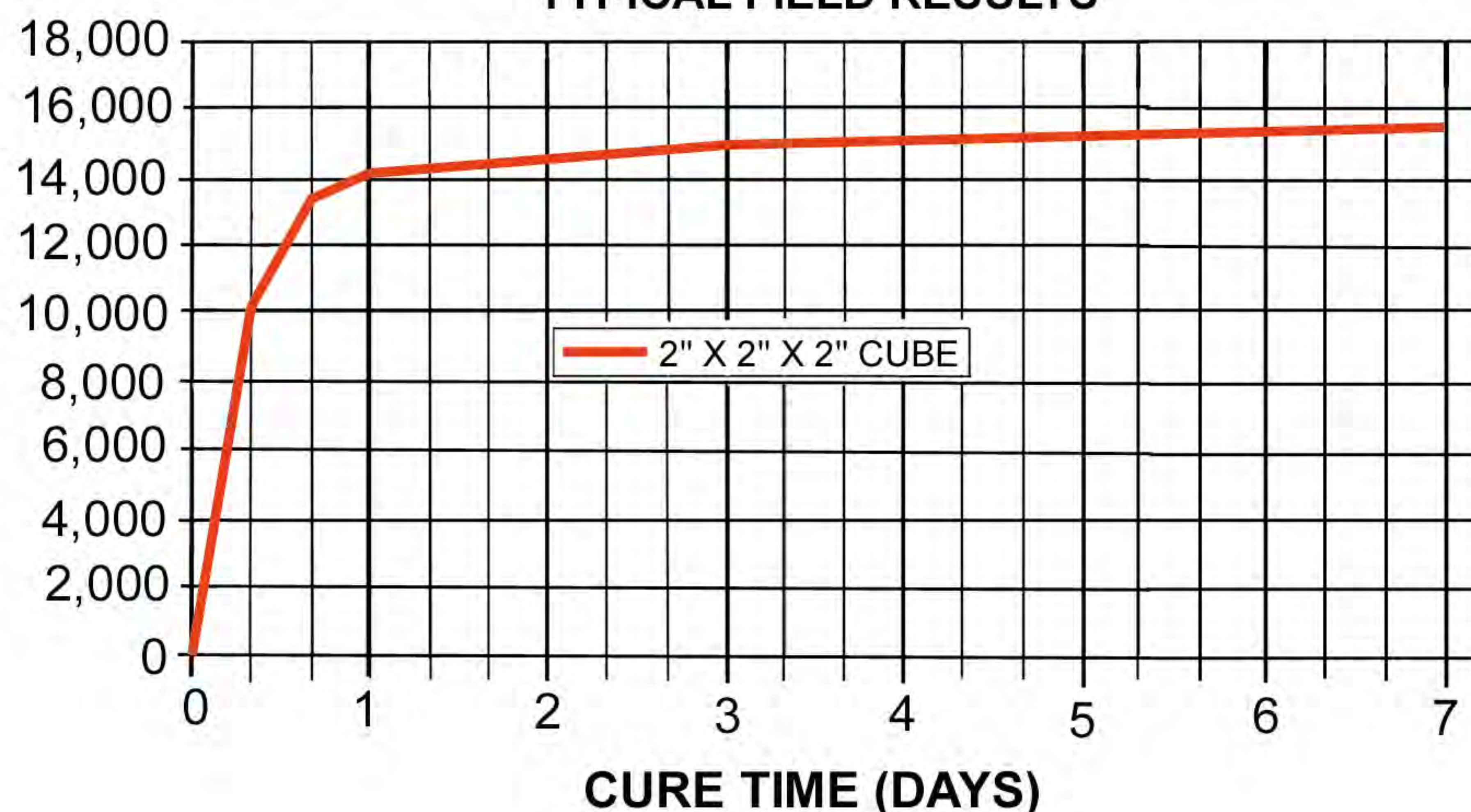
applications such as wind turbine bases, forge hammers, punch presses, power generation equipment and rail installations of all kinds.

PACKAGING/YIELD
0.7 Cu. Ft. Kit (1,209.5 cu. in.)
1.4 Cu. Ft. Kit (2,419 cu. in.)

Physical properties shown are the result of 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 Safety Data Sheets (SDS) for all safety data.

### WTF-E V-100 EPOXY GROUT TYPICAL FIELD RESULTS



PHYSICAL PROPERTIES	
Cure @72° F	
<b>Compressive Strength</b> (ASTM C-579)	8 hours: 10,185 psi 16 hours: 13,510 psi 24 hours: 14,020 psi 72 hours: 14,760 psi 168 hours: 15,470 psi
<b>Tensile Strength</b> (ASTM C-307)	2,350 psi
<b>Flexural Strength</b> (ASTM C-580)	4,800 psi
<b>Heat Deflection Temperature</b> (ASTM D-648)	170°F
<b>Maximum Service Temperature</b>	225°F
<b>Hardness</b> (Shore D) (ASTM D-2240)	94
<b>Mixed Viscosity</b> (ASTM D-2196) (77°F)	27,000 cps
<b>Gel Time</b>	50-60 min.
<b>Placement Time</b>	60 min.
<b>Typical Pour Depth</b>	3/4 in. - 3 in.
<b>Linear Shrinkage</b> (ASTM C-531)	0.000040 in./in.
<b>Coefficient of Thermal Expansion</b> (ASTM C-531)	0.000006 in./in./°F
<b>Flowability and Bearing Area</b> (ASTM C-1339)	1st Contact - 45 sec. Full Contact - 63 sec. Bearing Area Range - High (85-100%)
<b>Creep Test</b> (ASTM C-1181) 600 psi @ 150° F Cured 24 hours	0.00045 in./in.



# WTF-E 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 watertight 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 one pouring) is best.

## MIXING THREE PART EPOXY

Three part formula contains resin, hardener and an aggregate. When ready to mix grout, pour the hardener into the resin container and mix with a paddle in a variable speed drill until thoroughly blended. Pour mixed resin and hardener into a larger container or paddle type mortar mixer (poly material preferred). Slowly add

all of the aggregate until all surfaces become wet as it is mixed. Continue to mix until there are no dry streaks. Do not add water.

## 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.

WTF-E Ave. Placement & Cure Times		
Ambient Temp.	Placement Time	Cure Time
50°F/16°C	1 hr. - 45 min.	40 hr.
55°F/18°C	1 hr. - 30 min.	32 hr.
65°C/21°C	1 hr. - 20 min.	29 hr.
75°F/24°C	1 hr.	22 hr.
85°F/29°C	40 min.	16 hr.
95°F/35°C	35 min.	11 hr.
100°F/38°C	30 min.	7 hr.

## 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° 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, hardener and aggregate) 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 all three components are at a temperature between 70 and 80 °F at the time of mixing and placement. Storage of all three components at a temperature within this range for a minimum of 18 hours before mixing is recommended.

## CLEAN UP

Because of the presence of the aggregate, the uncured grout may be cleaned from tools and equipment with a water rinse.

## PRECAUTIONS

*Always wear appropriate Personal Protective Equipment. SDS 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).*

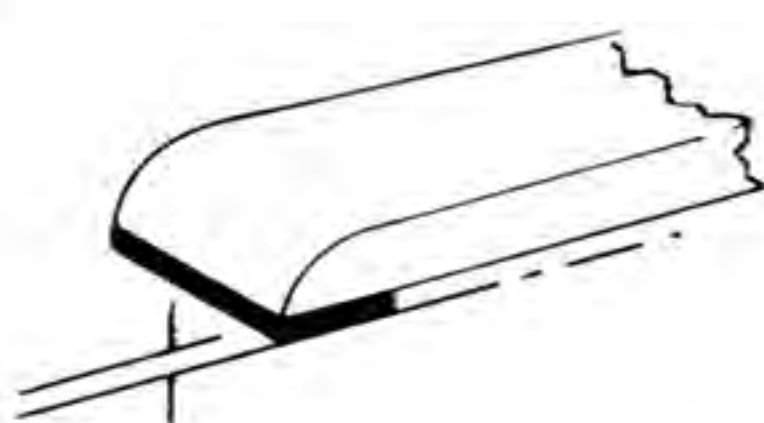
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Consult Unisorb For Procedure when grouting large diameter or thick pours.

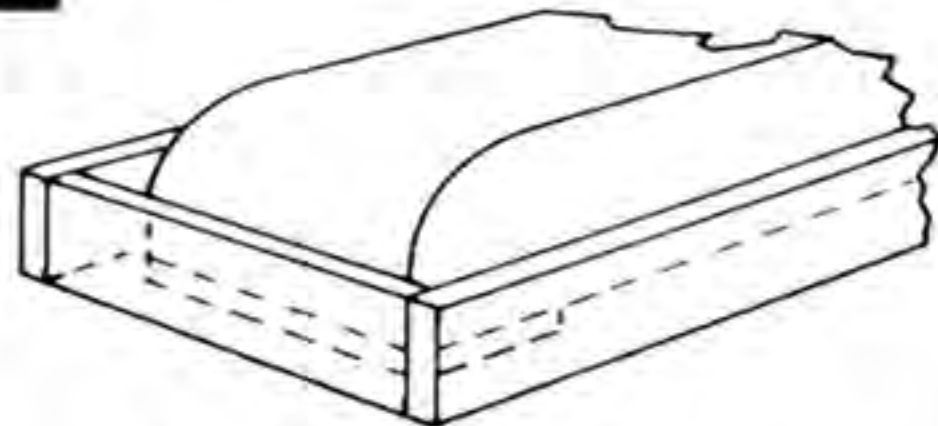
## APPLICATION TECHNIQUES FOR EPOXY GROUTING

1



LEVEL EQUIPMENT WITH 3/4" - 8" CLEARANCE

2



FORM PERIMETER LEAVING ADEQUATE ROOM FOR PLACEMENT AND VENTING

3



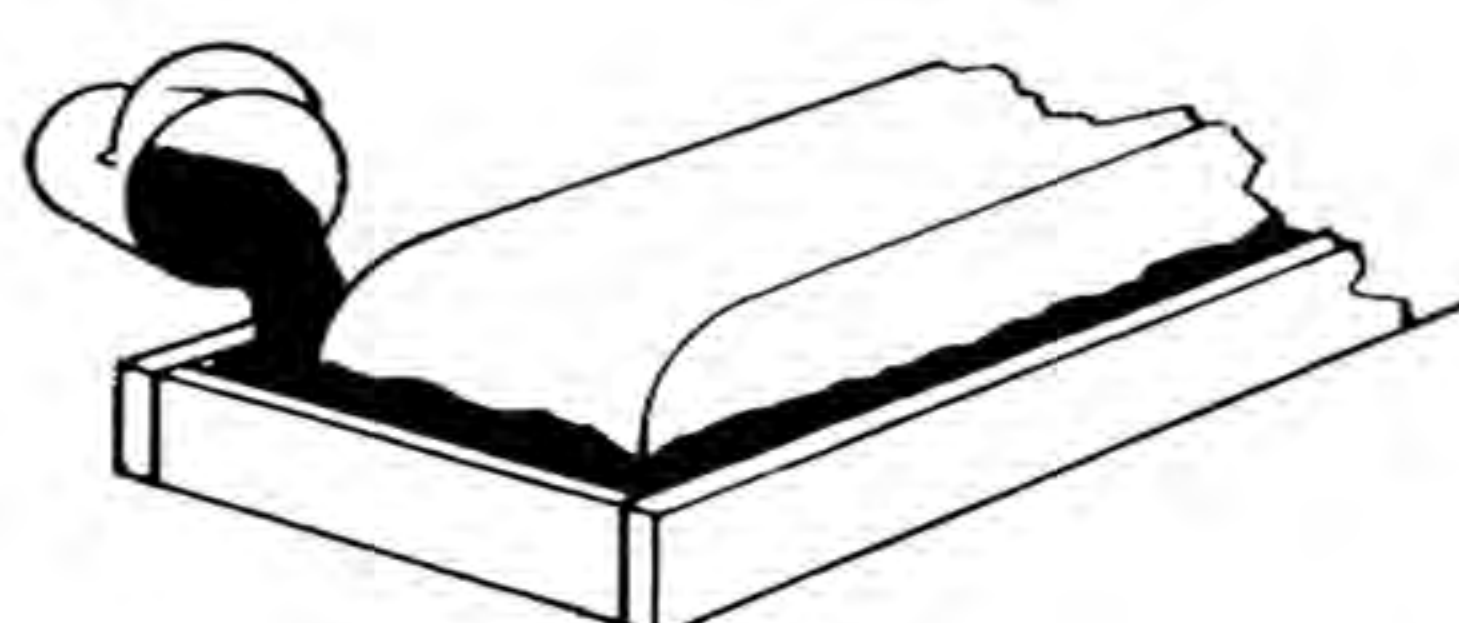
MIX RESIN AND HARDENER

4



POUR RESIN & HARDENER INTO MIXER AND SLOWLY ADD AGGREGATE

5



POUR UNDER EQUIPMENT AND ALLOW TO CURE

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