

ENGINEERING FOR FARM & RANCH SINCE 1950

VIRDEN *Lifetime* PERMA-BILT

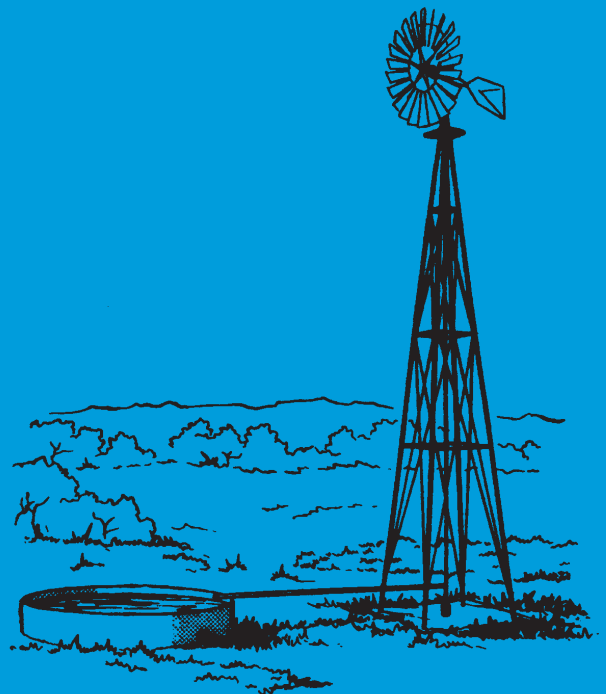
PRODUCTS



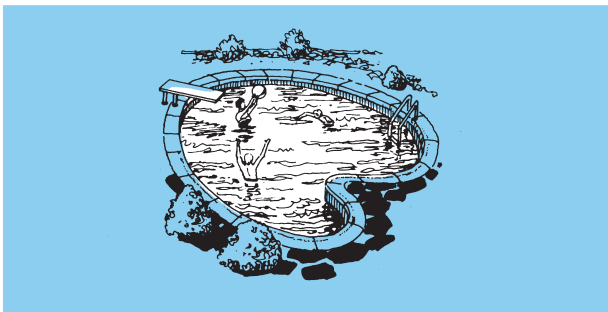
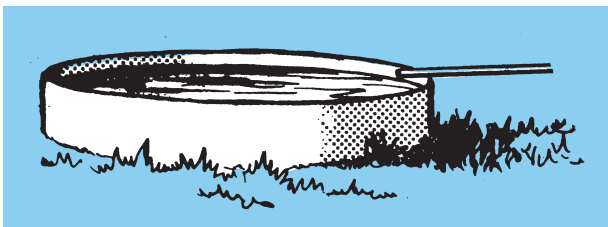
Originators and manufacturers of Lifetime Tank Coatings for steel and concrete tanks, cisterns, silos and basements. Over 20 million pounds in service. Roof coatings for tar paper, composition, cedar shingles, and metal roofs. When all else fails, fix it and forget it with "Perma-Bilt."

Virden Perma-Bilt Co. was founded and started by Ben and Bethel Virden in 1950. Ben's son Joe, and Jenny Virden bought the company in 1973. Their hard work and dedication to serving the farmer and rancher are what makes Virden Perma Bilt the thriving business it is today. We manufacture everything we sell from our tank coatings to roof coatings. Thanks to Joe Virden, his daughter Terri and husband Gary Harris can continue excellent service and quality products at the lowest prices possible.

**WE SHIP SAME DAY
ORDER AND PAYMENTS RECEIVED**







**FROM STOCK TANK, TO SWIMMING POOL,
TO BASEMENT WALLS**

TANK COATING (Epoxy)

FOR STEEL, CONCRETE AND ROCK TANKS

In October 1958 we coated our first stock drinking tanks with Tank Coat (epoxy). There were 16 of the 3/16" and 1/4" plate steel tubs 30' across and 27" deep. Seven (7) of the tanks were to be abandoned because of holes. Those tanks stand today full of water as evidence of the permanent repair and rust prevention of Tank Coat (epoxy).

Since 1958, well over 16 million pounds of Tank Coat (epoxy) have been sold to ranchers and farmers. Many large operators have now lined every drinking tub and reservoir on their ranch.

Concrete and rock tanks are repaired with Tank Coat (epoxy), never to have a leaking problem again. One must understand the reason this one coating will stop all tank problems. Epoxy is the strongest adhesive known to man. This assures that it will never become loose. Nearly all other coatings react to alkaline water. Those coatings allow a slow permeation of moisture and oxygen. This explains the rust that will form on the metal under the coating and grows until it pushes off the coating. Of course the metal may be deteriorated entirely and allow holes and leaks.

Tank Coat (epoxy) is not softened by alkaline water. When two coats are brushed onto the surface, the cured coating will be approximately four (4) times thicker than ordinary paint or coatings. The Tank Coat (epoxy) is more than twice the hardness of concrete. The tensile strength is over four (4) times greater than the best concrete. Tank Coat (epoxy) is not affected by gasoline and many acids.

The coating is supplied in three containers. (1) A white paste. (2) A black paste. (3) A container of equal size containing the thinner-cleaner. The black and the white paste are to be mixed in equal parts until it becomes a gray paste. This requires only minutes. Before reducing to a brushing consistency, the gray paste is used with a putty knife to stop all holes from pinpoint size to 3/8" across or about the size of a pencil. It is necessary only to press a glob over the hole which will carry some into the hole.



Photo shows Bob Jones, production manager, mixing Virden's now famous Tank Coat Epoxy.

There is nothing else to do to the hole.

As thousands of persons have learned, this is better than a bolt with two rubber washers. It will never leak again. For large holes from pencil size to several inches across, it requires the mixed paste to be placed around the edge of the hole and a patch cut from a coffee can or most any material and applied over the hole and paste. Then cover the patch well. This is more sure and permanent than if a patch by welding had been applied. This repair will hold high pressures. When all holes and cracks have been repaired with the paste, the paste is then thinned with only enough thinner to have a gravy or heavy bodied liquid for brushing. If too much thinner is used, the two brushed coats will not be the thick coat that is necessary to forever prevent penetration of moisture. Two coats are required in every case. This is because one coat of any material will have small holes (pores) and a second coat seals all of these.

Best results is to allow overnight curing of the first coat before applying the second coat. Tank Coat (epoxy) cannot freeze. If it is applied when the temperature is low, it will always wait until the temperature rises and then will become hard.

We believe that only about 2% of all tanks lined with Tank Coat (epoxy) is sandblasted because of unavailable equipment. Ranchers and their cowboys have always scraped and brushed the surface to remove the loose rust, dirt of corrosion. Even though the surface may still be very rusted, the coating will be very permanent. The Tank Coat (epoxy) can be applied over damp concrete. It cannot adhere to a very wet surface. There is absolutely no lasting toxic effects of the Tank Coat (epoxy). When the paste materials are used without thinning there will never be a bad taste or odor. A person may repair failures in a reservoir with only a man-hole opening by using the paste not thinned.

The thinner is a toxic material much the same as gasoline, turpentine or other paint thinners. It is a flammable solvent and must be kept away from flame. To coat open top tanks and vessels there is no toxic hazard in using the thinned material for as long as necessary to do a job.

To coat the inside of reservoirs, cisterns, or any vessel with only a small opening, it is a must that an air supply be used to supply air from the outside to the operator inside that is applying the coating. Failure to supply this fresh air will result in the person applying the coating to become drunk or faint and be overcome with the fumes or vapors. This is not a poisonous vapor, but it does deplete the oxygen content of the air within the tank and could be serious or even fatal.

Continued on Page 2

Tank Coat (epoxy) is the only material that can repair cracks in a basement and seal the walls and floors so that moisture and water cannot enter from the hydrostatic pressure. Being epoxy it will not fail adhesion. Because it has a much thicker application it will not allow penetration through the coating. The result will always be a dry basement or cellar.

Underground cisterns may be repaired with the paste material with a putty knife or trowel. To coat the walls and bottom of a cistern with the thinned material is possible but is not recommended because of the vapors and the cool temperature will require many days for complete cure. The coating in any closed water reservoir will become hard and cured within a couple of days. The fumes or vapors must be allowed to dissipate out of the tank or the first filling of water will be contaminated by the vapors. If the vapors are removed there will be no taste or odor to the water, only the vapors can cause odors or taste. Grain auger tubes have been restored by using the paste to repair holes. Feed bunks and mush feed lot equipment employ Tank Coat (epoxy).

There is no stronger repair for cracks in concrete. If there is a movement of the concrete, the crack should be filled with Tank Coat (epoxy) and the crack and adjoining two inches covered with Virden Perma-Bilt E #12. The vibration or temperature extremes or pressure

may again break the Tank Coat (epoxy) or the concrete. The crack will never leak because the E #12 stretches 100%.

To summarize: Tank Coat (epoxy) is the strongest adhesive known. Since it is supplied in paste form, it serves to stop all leaks, small or large holes or cracks even on the outside of tanks.

- (1) Repair and coat concrete tanks and plate steel tanks.
- (2) Repair poured concrete and concrete block cellars and basements never to allow seepage.
- (3) Repair permanently all aluminum irrigation pipe.
- (4) Line grain and ensilage augers even where large holes have worn through.
- (5) Repair gas tanks on vehicles without removing the tanks.
- (6) To fasten masonry items together where there is no movement from vibration.
- (7) Repair of unlike pieces of equipment, that is aluminum or pot metal that is not easily welded.
- (8) Tensile strength of Cured Tank Coat (epoxy) is 1450 P.S.I. Good concrete is 350 P.S.I.
- (9) Tank Coat (epoxy) not mixed will keep 20 years. There is no solvent in the paste materials. It will not burn, it will not freeze.



NO 1. KIT is 3 quart cans. Covers 40 to 50 sq. ft. with two coats. Weight is 12 pounds. This kit is available.



GOOD 4" BRISTLE PAINT BRUSHES, BRUSHED WITH STEEL WIRE for cleaning rust. Good ones. MIXING TOOL, fits any electric drill. Speeds mixing.

TANK COAT is absolutely safe for all drinking water containers. TANK COAT is packaged in three different size kits. Each kit has three containers. All three are necessary. There is no greater adhesive.

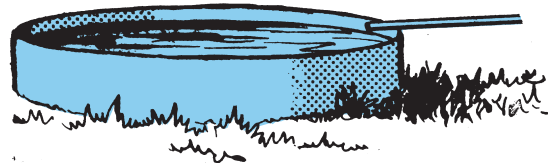
NO. 2 KIT is 3 — one gallon cans. Covers 180 to 200 square feet with two coats. Weight is 42 pounds.



NO. 3 KIT is 3 — five gallon cans (15 gallons). Covers 700 to 1000 sq. ft. with two coats. Weight is 200 pounds. By far the most economical way to purchase Virden's Tank Coat Epoxy.



*Please see enclosed price sheet for prices and shipping information.
We will ship same day order and payment is received.*



FOR GALVANIZED TANKS AND THIN METAL TANKS

E #51 coating was developed in 1967 especially for corrugated galvanized reservoir and stock drinking tubs. It should be used on all thin metal tanks or equipment. E #51 is a flexible coating that can allow metal to bend or stretch to a certain extent without breaking the film. It cannot stretch the 1000% that is possible with E #12 elastomer coating.

Should a thin gauge galvanized corrugated tank be coated with Tank Coat (epoxy) and the tank be empty in the sun's heat, the corrugations will expand and cause the very rigid and hard epoxy to crack. The E #51 was developed to allow the corrugations to contract and expand without coating failure by cracking. A ribbon of this metal coated with E #51 can be wrapped around a small nail without danger of breaking the coating.

The E #51 can be used on heavy plate steel. It's adhesion is so great that primer is not required. Large quantities are supplied to ranchers, farmers, and industry for protecting all kinds of equipment, feed lots with their feed processing equipment, as well as the machinery used for cleaning and hauling manure, and all watering systems for stock. A thin gauge tank can have many holes or leaks. These are quickly and easily stopped with the Tank Coat (epoxy) paste and immediately covered with a protective coating of E #51. This is the complete repair and protective coating of E #51. This is the complete repair and protection system common to galvanized corrugated drinking tanks and water reservoirs known as "overhead tanks." 95% of the time only one thick coat is needed. Extreme conditions may require two coats.

E #51 is very chemical resistant. Its purpose is designed for containing liquid feeds that contain acids such as phosphoric and acetic. The E #51 is rated high in abrasion resistance and is used where materials above cause an erosion of a coating or the base material. The epoxy in other formulations are well known to be the longest life coating and finish for gymnasium floors where there is much harsh traffic.

The E #51 is a two-part material, gray in color. Spot the suspected failure areas and then apply one thick, solid coat over the entire inside of the tank are. Coating is ready to use when it cannot be moved with a nail.

Each kit of E #51 includes a special thinner cleaner for washing and cleaning brushes between and after coats. Otherwise, the brush will not be usable again. This particular cleaner is not available except in large cities and on large orders. The E #51 requires no thinning. The E #51 system is toxic to breathing while applying in its uncured stage.

This is not poisonous and the fumes or vapors will not be noticeable when coating drinking tubs or machinery. The vapors are easily carried away in outside applications.



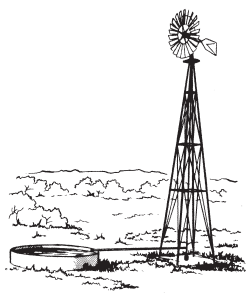
When a reservoir or other tank is to be coated on the inside and there is only a manhole opening, it is necessary that the person making the application inside be equipped with a mask or hood that has a 114" air hose going to the outside to an air source with at least six (6) cubic feet per minute displacement. The outside air is forced into the hood and it rushes out of the hood through the opening for the eyes and nose. There is no glass on this type of vapor mask. In this manner the person brushing the coating can stay in the vessel as long as necessary. He will not be able to inhale vapors.

It is important that this precaution and protection be taken because without the outside air the vapors will become more dense, which greatly reduces the oxygen available and the person in the vessel will become drunk and then weary and tired. Should he continue to stay in this environment, he will be overcome.

After all these many years of supplying thousands of gallons of E #51, there has never been a fatality. Many large vessels have been lined but the operator has just used common sense. Definitely two (2) men should always be involved on closed vessel lining.

The vapors from E #51 are no different from other paint thinners. All must be used with caution. Do not smoke or use near open flames. The vapors and coating are flammable.

Continued on Page 4



E No. 51 (Continued)

“E 51 is a flexible coating that allows metal to bend or stretch to a certain extent without breaking the file, and its adhesion to concrete is excellent.”



Tank Coating (E #51) after curing will never contaminate drinking water. It cannot cause taste or odor. It is ideally suited for lining fish containers. Tank Coat (E #51) being very abrasive resistant is recommended to be placed as the second coat over the elastomeric E #12 where the rubber-like E #12 has been used for cracks in concrete floors or roofs. The two were developed for each other. E #51 protects air conditioners. Farm and ranch feeding equipment that involves the use of salt to livestock is protected from further rusting. New self-feeders, as well as new tanks, are coated before ever placing in service.

Cattle hauling trailers employ E #51 because of the highly corrosive livestock waste. Irrigation pipe of aluminum is repaired with the epoxy paste and covered with E #51 to prevent deterioration of aluminum pipe laying on wet ground. All lap joints and nail holes in steel roofing are often covered with our E #12 elastomer coating that will stretch 500% and is over 1000 P.S.I. tensile strength. Then to have an attractive building, the entire roof is painted or coated with the E #51. This is the only known steel roof repair that will never allow cracks to open and allow leaks.



9 pound Epoxy Paste Kit for tanks with many pinholes.



1-gallon with catalyst cleaner for cleaning brushes. Covers approximately 140sf.

1 5-gallon E-51B catalyst cleaner, 1 can E-51A & 1 can Clean Up Solvent for cleaning brushes. Covers approximately 700 sf.



BRUSHES

Good 4" BRISTLE PAINT BRUSHES. BRUSHES WITH STEEL WIRE for cleaning rust. Good ones. MIXING TOOL Fits any electric drill. Speeds mixing.

E No. 12 ELASTOMERIC COATING

This coating was developed especially for repairing of roofs of metal buildings and for complete repair of cracks in swimming pools. There will be hundreds of other places where the E #12 will be the only material that can serve. It is applied by brushing.

A quonset-type barn or any low-pitch roof of corrugated, galvanized iron often has leaks at the seams or where each metal sheet laps another. It is necessary to coat the lap joint and only one or two inches on each side of the crack. In most cases a second coat is not required. The combined thickness will be 15 mils or more. This is four times as thick as house paint. Within 48 hours after application, it is possible to walk between the supporting purlins and the rubber-like E #12 will stretch but will always recover. It will not break. The roof or wall has been sealed forever.

These two elements limit the use of rubber or neoprene coatings. E #12 is exceptionally abrasive resistant if placed in an environment of erosion. The most commonly prepared color of the E #12 is light gray.

E #12 will experience a color change after exposure to the sun. This has no effect on the physical properties of the coating.

For any swimming pool repair, E #12 is the answer. Any cracks can be repaired, and when the pool is filled, cracks open the same as before but the E #12 stretches and no leaks occur.

E #12 will serve best where there is some degree of movement that will normally crack a rigid coating.

Extensive tests and experiments since 1970 have revealed that E #12 can be applied inside metal and concrete grain storage bins to form a completely air-tight condition that may never be accomplished otherwise.

Of course the terrific elongation will allow the corrugated, galvanized metal to expand in the sun's heat and contract when cold with breaking the film that protects each lap joint. The same is true with a concrete structure that will eventually allow cracks to appear.

The corrugated iron sheets that granaries and buildings are made with may be coated only at lap joints and over nails and bolts. Possibly only 1/6th of the entire area would be covered. E #12 is the complete solutions of silos.

The adhesion of E #12 to aluminum is so perfect that the mobile home industry will employ tremendous quantities as a covering over the smooth aluminum roofs. This prevents damage from hail. It contributes to sound deadening from the wind vibrating the roof and eliminates placing unsightly automobile tires on top of pretty mobile

ALL NEW VIRDEN'S ELASTOMERIC E-12!!

- GREATLY** Improved elongation
- GREATLY** Improves strength. Cannot be pulled in two by hands.
- GREATLY** Improved Adhesion. Sticks to any-thing, especially troublesome surfaces, galvanized, glass, rusty metal, etc.

In most applications, only 1 coat is required.

Excellent repair for all types of liners, swimming pools, tanks, vinyl, etc.



1 Quart Kit

homes for quietness.

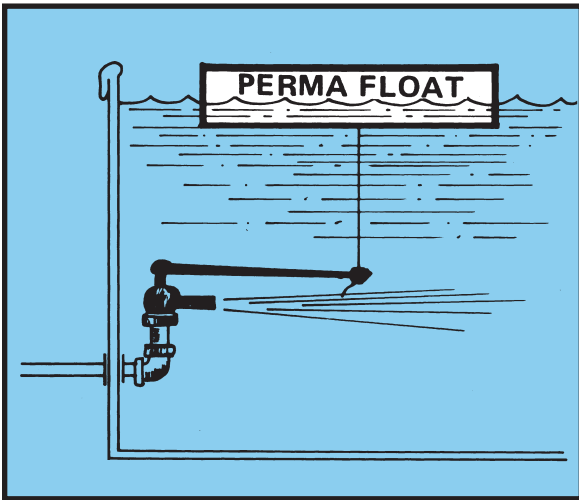
A one-coat brushed coating of E #12 normally will cover 20 linear ft.

Every kit of E #12 is complete with fiber, base and catalyst for metal or non-metal surfaces. Complete directions are included.

E #12 does not contaminate any drinking water vessel after complete cure.



NOW! A STOCK TANK FLOAT THAT DOES NOT LEAK, TAKE ON WATER, RUST, SINK, ETC. — SHOULD LAST A LIFETIME.



Viriden Perma-Bilt's research department has completed lengthy field tests with these encapsulated urethane tank floats. They measure 12" x 12" x 2" thick. 30 pounds of pressure are required to push this float under water. They will easily connect to your high pressure or low pressure valves, insuring positive on and off action.

You can trust this float for many years of DEPENDABLE SERVICE

At right is shown the Viriden Perma-Float, along with a cutaway piece illustrating the famous Perma-Bilt urethane foam body, and covered with a 1/8" steel-hard epoxy covering. The center core hole is also completely sealed water-tight so there is no chance of deterioration. Heavy duty #4 copper wire goes through float and connects easily to your water valve. The valves shown below are also available through us, or your local hardware dealer.



Now, the problem of farmers and ranchers in keeping their tank floats in good repair is solved! Thanks to Viriden's encapsulated water-tight Perma-Float, you can now be assured of problem-free tank watering systems. Try them out and see if they aren't the best you've ever seen!



BUY A CASE OF SIX AND SAVE!

VIRIDEN PERMA-BILT COMPANY, 2821 Mays Ave., Amarillo, Texas 79109 806-352-2761

Ideal for Every Metal Roof, Barn, Storage Shed, Mobile Homes, Dwelling, etc.

VIRDEN PERMA-BILT'S COATING FOR METAL ROOFS

Not a Paint! - This heavy bodied snow white coating has been especially formulated for all types of metal roofs, corrugated, V-crimp, flat sheet etc. There is over 11,000 sq. feet of this coating on the five metal buildings at the Virden Perma-Bilt premises. It was put on in 1976. We sell hundreds of gallons of this metal roof coating a year, by just having the customer evaluate the roofs when they are at the plant! There is no fading or cracking on any of the metal roofs. "Come See"! Excellent adhesion, no primer required. Apply generously on the lap seam, joints, nail or bolt heads for definite water proofing! Snow white in color, (25% cooler because of the white color, does not fade). The cohesion to itself is excellent in case of hail damage. Simply cover the damaged area and because of its thickness, you cannot tell where the hail stone hit! One five gallon can should cover 350 sq. feet with two coats. Have your metal roofs be dry and rust proof with our inexpensive coating. It literally cements the sheet metal down on the roof along with the nail or bolt head. Available in one and five gallon cans. When all else fails fix it and forget it with Perma-Bilt.



TM-WHITE ROOF COATING



TM-White is a product much like the white stripping material used on pavements for controlling traffic. Much of this is still in use after many years of traffic crossing it. In fact, there is no good way to remove it. The city and state employees normally paint tar over it if traffic patterns are changed.

TM-White with age becomes more wear-resistant and waterproof. TM-White could not be a protective coating against large hail. It is impossible to engineer a coating against large hailstones.

A coating of TM-White over a previously black or colored roof can reduce air conditioning costs as much as 20%.

We have observed black roofs that had the TM-White applied next to the black tar paper and tar. A person could lay his face on the white where he could not bear to hold his hand on the black section. This was on a day of 80° or more temperature.

Emphasis must be placed on the fact that the black roof absorbs so much that given enough time this absorbed heat will destroy the paper, tar, and decking materials. The interior of the building has to contain this heat. More insulations are required under the roofing to prevent this heat from raising the temperature in the rooms below.

A TM-White roof will, of course, reflect the sun's heat back and the roofing materials will not be undergoing this terrific heat. The attic or space between ceiling and roof will never be nearly so hot. A small amount of insulating materials above the ceiling will do better than the large amounts that are required for black roofs.

TM-White can be applied by anyone. The best application is with a wide paint brush. This material flows and levels as well as the best house paint. There is just the right amount of solvent in TM-White so that it will merge or fuse with the tar on built-up roofs or with the asphalt in composition shingles.

The better application is two coats because you are adding thickness to the cover. At the low price of TM-White, a two-coat job is very reasonable. TM-White will normally dry to touch within thirty minutes to one hour.



Note this very thick viscous material. Normal paint weighs approximately 7#. Our TM White weighs 13# per gallon. This roof coating is *not* a paint. It is a very heavy bodied material with an excellent adhesion factor to any tar or asphalt base product. The white is a tremendous advantage for reflecting heat.



VIRDEN PERMA-BILT  **PRODUCTS**

LIFETIME FLOTATION FOAM



VIRDEN PERMA-BILT FOAM COAT

Viriden Perma-Bilt offers a very durable hard shell coating especially formulated for the adhesion and protection of all type foams. Unaffected by sunlight, ozone and water. This permanent coating is a must for all foams that are exposed to weather. Available in 1 gallon and 5 gallon containers. FOAM COAT does an outstanding job protecting various foams, styrene, urethane, etc., from bad weather, birds, insects, etc. If possible turn containers upside down for two to three days before mixing and using. Add no solvents or thinners to the Foam Coat (the only exception to this is when extreme settling has occurred and a small amount is used to loosen the bodied pigment at the bottom of the container.) (Most solvents will attack the foam.) Apply generously by brush, two coats (8 hours between coats) are desirable for proper millage. Cure 24 to 48 hours.

LIFETIME FLOTATION FOAM

Two liquids mixed together in equal parts expand to a strong rigid flotation foam. Expansion is approximately 40 to 1. *Adds safety to any boat. *Greatest sound deadener. Makes all boats much stronger with nearly no weight increase. *Anyone can mix and pour, no special tools or skill required.

Lifetime Flotation Foam is not affected by gasoline, acids, fuels. 95% closed cells. Easily fiberglassed as there is no attack from any resin. Much stronger in tensile and compression strengths than styrene foams. Weight of foam is two pounds per cu. ft.

Fill pontoons of any size and shape. Seals all holes and leaks.

Complete mixing and pouring requires only five minutes.

Easy to follow instructions. BE SAFE, BE SURE.

EPOXY PUTTY

Strongest bonding adhesive known to man. Repair any size hole. Fasten anything to anything. Four times stronger than the best concrete. Simply mix two parts equal. Repair fiberglass and wood boats. Aluminum and steel tanks. Not affected by gasoline.

**FOR BOATS • BARGES
HOUSEBOATS • DOCKS
PONTOONS • BUOYS**



Viriden Perma-Bilt Rigid Foam

- ★ For Flotation
- ★ For Insulation

2 QUART KIT FOAM

Wt. 4 1/2 pounds, makes 20 gallons. Will support 180 pounds in water.

2 GALLON KIT FOAM

Wt. 18 pounds, makes 8- gallons foam

10 GALLON KIT FOAM

(2-5 GALLON CANS)

Wt. 100 pounds, makes 400 gallons. This will make 50cu ft. and will support 3,000 pounds.

Lifetime Foam is also the greatest insulation known. More than twice the insulation of cork, styrene foam or fiberglass.

ENGINEERING FOR FARM, RANCH AND INDUSTRY SINCE 1950



Polyester laminating resin. This is the same resin used in the automobile and boat industry. (Available in gallons and quarts). Methyl Ethyl Ketone Peroxide (MEKP) is the standard hardener (catalyst). 2 oz. bottle enough to harden one gallon.

The fiberglass cloth and matt are both 50" wide and are sold by the running yard.



Virden Perma-Bilt Co. also has a complete line of fiberglassing products. Heavy-duty cloth, cross sectional matte and fillers. Also complete line of polyester laminating resins, catalyst.

We also offer a complete line of epoxy casting resins. These epoxy resins have less than 1% shrinkage (where polyester resin has 8% to 10% shrinkage.) The epoxy tensile strength almost equals that of nylon.

Please see enclosed price sheet to order.



MORE IMPORTANT INFORMATION ABOUT...

VIRDEN PERMA-BILT URETHANE RIGID FOAM



FOR FLOTATION

One of our most popular plastic products is our now famous Virden polyurethane pour in place foam.

Virden Perma-Bilt urethane foam is supplied in two liquids about the viscosity of 20 weight motor oil. One resin is designated "A" and the other is "B." These two resins must be used in equal parts.

Once a person knows how long to stir the two together and the time it requires to pour into an open void or into a hole it becomes quite simple to mix and pour any amount. The resins should be reasonably cool at mixing time. The "B" component contains freon which is the blowing agent to make the foam. This freon boils at 77 degrees F. If the container is below this temperature all is well. If the "B" is over 80 degrees it is possible that it will seem to boil over when the container is opened.

Pour equal amount of "B" and "A" into a container. Beginners should make their first mix of only a small amount of each — probably a cup of each. Nothing happens when the two components are poured together. A 1/4" electric drill with a paint mixer are the best tools to use for stirring. Stir well for one minute and the material will become creamy. You must pour at once and pour quickly as the foaming has already begun.

The mixing is very important and the time of stirring cannot be shortened very much or you will not get the maximum expansion of rigid foam. After you have poured the mixture from the container it will be only 3 to 5 minutes until the foam is completely through expanding. Should you need to pour an additional amount on top of the foam already in the container you should allow 20 minutes before pouring again.

It is very important that the cavity or mold surface is warm. In winter it is necessary to heat the mold with a light bulb, heating element or some other type of heat. It is best if the mold is 100 degrees; better still if it is 125 degrees. This means that you get greater expansion and better and lighter foam. This will reduce the cost as you get much more foam than with a cold mold.

After realizing the importance of stirring and pouring, large amounts can be poured at one time.

Perma-Bilt Urethane Rigid Foam weighs 2 pounds per cubic foot. The cells are 95% closed which makes it the finest foam available for flotation purposes. Its insulation values are greater than any other known material. Common bead foam is styrene foam and is never a liquid. Both types of foam have the same value for flotation whereas Urethane

Foam has approximately twice the insulating value of styrene foam and therefore requires only half the thickness for insulating purposes.

Virden Perma-Bilt packages Urethane Foam in 3 kits. The No. 1 Kit is 2 quarts and will make about 20 gallons or nearly 3 cubic feet. The net weight is 4½ pounds. The No. 2 Kit is 2 gallons and comes close to making 12 cubic feet or about 80 gallons. This is exactly the same amount as 4 of the No. 1 Kits and is normally sold at the price of 3 No. 1 Kits — a saving of 1 No. 1 Kit. The net weight is 18 pounds. The No. 3 Kit is 10 gallons (2 5-gallon cans.) This weighs 100 pounds and will produce 50 cubic feet of rigid foam. The cost is normally reduced by 50% on this size kit compared to the No. 1 Kit and the No. 2 Kit. The No. 3 Kit is commonly purchased to fill pontoons.

When estimating the amount of foam needed anyone can use the following information. A cubic foot of water weighs 62 pounds. A cubic foot of urethane foam weighs 2 pounds. It will require 60 pounds of weight to press a cubic foot of foam below the water surface.

An example: A certain marine craft weighs 1,000 pounds. If you employ 16-2/3 cubic feet of foam under the craft, the 1,000 pounds would press the foam no lower than the water surface. The craft would never sink. Should the craft only weigh 500 pounds and the same amount of foam is used, 50% of the foam would be above water.

Suppose only the No. 1 Kit was mixed and poured into the floor or walls of a small boat. The boat would then be approximately 160 pounds more buoyant and in the case of developing a leak or should the boat capsize, the craft would support 160 additional pounds. This could be passengers, high priced motors or sporting equipment. All of this for the price of the No. 1 Kit.

It is possible to fill fuel drums, aluminum belly tanks or any other type of pontoon. They can never leak even if holes were shot through or rust eats away the metal covering.

Virden Perma-Bilt Urethane Foam can solve many flotation and insulation problems as well as reduce noise and vibration.

We hope we may help with your plans.

*Engineering for Farm and Ranch since 1950.
Texas residents add current sales tax.*



NOTES

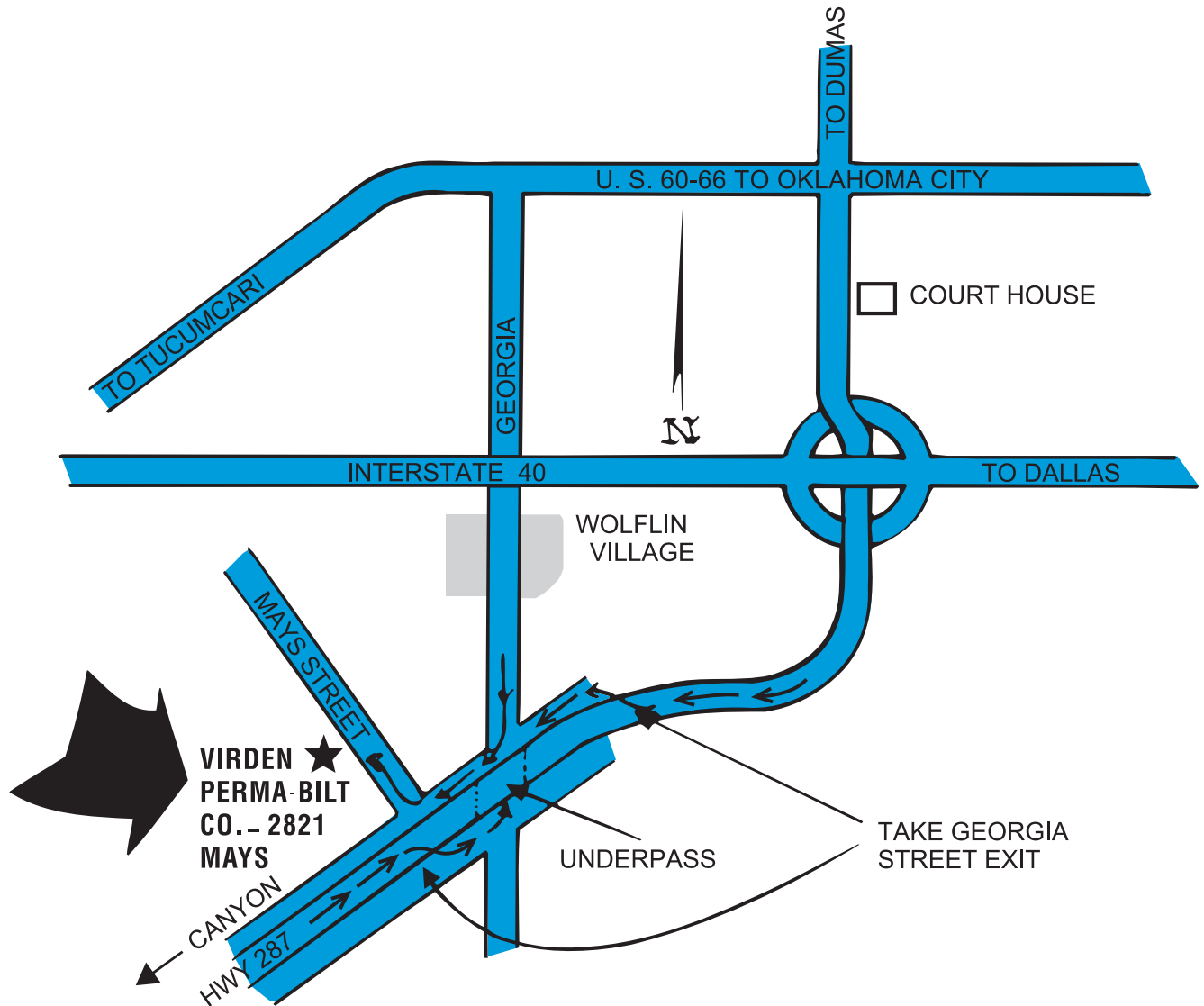
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VIRDEN



PRODUCTS

PERMA-BILT



Engineering For Farm and Ranch Since 1950



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