TEXAS SAND & GRAVEL

11311 E. FM 917
ALVARADO, TEXAS 76009
PHONE: 817-225-0059
TSGMATERIALS.COM

THE WORKING WITH SERIES 01

WORKING WITH & UNDERSTANDING FLEX BASE

SO WHAT IS FLEX BASE?

Flex Base is a flexible base course material that is most often used for driveways and temporary roadways. Some people call it driveway gravel, while others may refer to it as caliché, or simply "base". It consists most commonly of crushed rock that is 1 1/2" in size, down to fine powder, and contains stone at every size range between those two spectrums. The result is a highly compactable (and still flexible) base that is great for its intended use. A good flex Base will be testable to the standards of the State for use in construction. In Texas, the Department of Transportation, commonly referred to as TxDOT has testing standards for the amount of each size stone that can be in the mix of flex base, as well as the hardness that is required for the stone used in the flex Base. For TxDOT, flex Base is tested to Item #247 specifications. This is what really sets Flex Base apart because anyone can sell a "flex Base" but not everyone sells a testable flex Base to TxDOT Item #247 specifications. This is a big deal because without testing, you could be purchasing stone that is too soft which means within a couple of years, the stone will break down and you will be left with powder. You could also purchase base that has only a little bit of rock, that has been mixed with dirt! You'd be surprised what some people try to sell as flex Base! At By The Yard Materials, we sell only TxDOT Item #247 testable Flex Base!

WHAT IS THE PROPER PROCEDURE WHEN WORKING WITH FLEX BASE?

The first step in working with Flex Base, and honestly, the most overlooked is in preparing the subgrade. The more that is done to ensure proper water movement in regard to the subgrade, the longer your efforts will last! Think about it like this - anywhere that you have water standing after a rain, will still also be the case after you install flex Base. The water will pond below the surface of the flex Base, creating soft spots in the subgrade (not the flex Base) which in turn will create potholes over time. Spend the time or extra money when hiring a professional to do your grade work to ensure that the subgrade (the area below the flex Base) has been graded properly to ensure water flow. This might mean a pipe needs to be installed, or something as simple as a berm to direct the water. It is recommended to hire a professional that is willing to use a laser level to check elevations. Check with us if you'd like some recommendations of some really proficient guys!

The next step to process is whether or not you want to have your driveway or roadway flush with the ground or to be above the existing soil. If you want it below the existing soil, you will need to excavate out existing soil in order to compensate for the 4" to 6" or more of base that you will be putting in.

After you have addressed water drainage issues and set the elevation for your drive or roadway, the next step is to calculate the amount of needed material and have the material delivered to your location. You can give us a call with your dimensions and we can easily figure the amount of needed material, or you can check out

GET MORE INFO
@ TSGmaterials
@ TSGmaterials
@ TSGmaterials

ACTUAL IMAGE:
TxDOT Item #247
Flex Base

GET MORE INFO
@ TSGmaterials
@ TSGmaterials
@ TSGmaterials

our calculator on our website at tsgmaterials.com. We make most deliveries as soon as next day, and sometimes even the same day! The biggest question we seem to receive (almost daily) is how deep should we make the material? The answer is: the thicker that you make it - the better off you'll be! We aren't giving a non-answer there - we really know this to be true! The thicker you are able to make your flex base, the longer the material will hold up for its intended purpose. The recommended depth would be to plan for at least 6", which will compact to a depth of 4". If you can double this, following these steps, you'll end up with results that you'll be satisfied with for a long time to come! The biggest mistake you can make would be to plan for "just an inch or two" of flex base.

Installing the flex base is a simple process to explain, but depending on your proficiency on a skid steer, track loader, or tractor, it might be a different story. The typical guidelines are relatively simple to follow for most residential applications, working with a skid steer, track loader, or tractor, we recommend spreading and compacting in 6" lifts (or layers). As the lift is installed it is recommended to sprinkle or "water in" the material. This will allow for the greatest amount of compaction. As the material is spread to the 6" depth, simply grab a water hose and begin to sprinkle or water the flex base as it is being worked in. Do not overly saturate the material, but water it well so that it has a good moisture content. As the material is worked and compacted it will set up well and make a good solid base! For compaction, a track loader is a good option, although you can use the tires on a skid steer or tractor. Independent from a piece of equipment like these that will most likely be doing to grade work to install the flex base, you can rent something small like a walk behind vibraplate which will probably will be a little on the light side or larger various sized ride on compaction rollers. If a thicker base course is desired, just repeat these steps!

TOPPING THE FLEX BASE

A final step (and optional step) when working with Flex Base driveways, roads, and approaches is the option of topping the flex base. Most commonly this is done with either a clean 1" Limestone Rock or Recycled Asphalt Millings. This is usually a shallow layer that is approximately 2" in depth. These are both great options that both add to the longevity of your project as well as dress it up! Give us a call to learn more about these options and materials!

A LITTLE EXTRA CAN GO A LONG WAY...

A great extra step that can be applied before the Flex Base is installed would be the application of GeoTech fabric. This fabric is similar to what you might find at hardware store but is substantially thicker and more durable. Weighing in at 4.2 ounces this fabric is also TxDOT approved drainage filter fabric. This adds an additional thin layer of stability to your Flex Base, and more than that, functions as an excellent weed control fabric! This material is extremely cost effective and worth consideration as underlayment on any new construction project where weed control might be desired! We sell this fabric on site here in 15', 7.5' and 3.25' widths and can cut to any length you desire. Give us a call for more information regarding this product and pricing.

ACTUAL IMAGE:
TxDOT Item #247
Flex Base

CURRENT FLEX BASE TXDOT #247 TESTING DATA

Just in case you'd like to see some technical specifications, feel free to contact our office at any time. We are happy to supply the current testing data for your review.

WE ARE HERE TO HELP.

If you still have questions give us a call, or if you'd like to put your hands on the material- feel free to swing by sometime! Maybe you need a recommendation for a contractor that can help with your project? We've got some guys that we feel great about sending your way, no matter what size your project is. We are here to help!

11311 E. FM 917
ALVARADO, TEXAS 76009
PHONE: 817-225-0059
TSGMATERIALS.COM