

Intresoil™ Installation Process for New Roads

Combining Soil into an Integrated Whole for Road Stabilization and Construction

Prepare the Intresoil™ Solution:

Follow the steps below to create the typical solution required to stabilize 1 mile (5,280' x 20') of new road.

1. Fill the tanker or container with the appropriate volume of water to achieve a 300:1 (water: Intresoil™) dilution. The typical blended application rate is 30 gallons of Intresoil™ concentrate per 1 mile of road at 20' wide. Assuming that the container or tanker has a capacity of 5,000 gallons, two batches will be required to apply the full 30 gallons of Intresoil™ to the 1 mile of road at a 300:1 dilution. For each batch, fill the container or tanker with 4,500 gallons of water.
 - a. Although it is typical to dilute the Intresoil™ concentrate at 300:1 (water : Intresoil™ concentrate), dilution rates can modified based on soil conditions at the time of installation. An assessment of the soil conditions should be made prior to installing Intresoil™ to determine the optimum dilution.
2. For each batch, dilute 15 gallons of the Intresoil™ concentrate with 15 gallons of water in a 55gallon drum or other container. This is referred to as the pre-dilution solution.
3. Add the pre-dilution solution to the 4,500 gallons of water in the tanker/container. This is referred to as the diluted solution.
4. Mix the diluted solution in the tanker by circulating for several minutes with a pump. The Intresoil™ diluted solution is ready for application.

Site Preparation:

1. Identify and mark off the area which is intended to be sprayed. Each 15-gallon concentrate batch (4,530-gallon solution) will cover half a mile of road at 20' wide (2,640 x 20').
2. Ensure that the road has adequate drainage to help facilitate the removal of water for the road.
3. Scarify the half mile section intended to be treated to the designed installation depth.

Application:

1. Once the upper 4-6" of the surface has been scarified, use a spray truck to topically apply the Intresoil™ to the loosened surface.
 - a. The application shall be performed in a manner that uniformly distributes the Intresoil™ diluted solution throughout the entire half mile section (2,640 x 20') section.
 - b. The application shall be completed over several passes.

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- c. Verify that the Intresoil™ is penetrating the loosened soil and is not running off. If the Intresoil™ diluted solution is running off of the intended surface, reduce the spray rate and apply the Intresoil™ diluted solution in lighter passes.
 - d. Stop spraying during maneuvering and turnaround.
 - e. Significantly reduces the spray rate when applying the Intresoil™ diluted solution on slopes to ensure that the Intresoil™ diluted solution does not run off and concentrate at the bottom of the slope.
2. Continue the application until the entire 4,530-gallon diluted solution is applied.

Mixing:

1. The treated soil shall be windrowed back and forth with a motor grader to uniformly distribute the Intresoil™ diluted solution into the entire designed depth.
 - a. If available, a reclaimer can be used to incorporate the Intresoil™ diluted solution into the 4-6" layer.
2. Once the Intresoil™ is evenly mixed into the upper 4-6" of the surface, use a motor grader to shape the road.
 - a. The final road profile should have a 2% crown to divert water from the road into adjacent drainage.
 - b. The final road profile should provide a smooth ride and be free of any irregularities.
3. Confirm that the soil is near optimum moisture and compact the surface to the designed density.
 - a. If the material is not at optimum moisture content, amend the material prior to compaction.

Maturation:

1. Water the final compacted surface once a day for the next 5-7 days following the installation.
 - a. You do not need to water for 5-7 days following the installation if it is raining during that period.
 - b. This is a vital step in the maturation process and the final performance of the road.