

Cement Treated Base Approved Under Floor Slabs

The use of Cement Treated Bases (CTB) under building slabs is a long-standing practice, dating back to the inception of CTB itself.

CTB is a simple, plant-mixed, highly compacted mixture of granular aggregates, portland cement, and water. As the cement hydrates, the mixture transforms into a hard, durable rain resistant base material. Proper installation of floor slabs must transfer loads downward over a large area and CTB provide an excellent load transfer medium. CTB will

enhance the overall durability and performance of floor slabs

A CTB base will prohibit the slab from settling and accelerates the placement of concrete. These beneficial characteristics are not present in other base materials, such as sand. Instead, they are found in the highest quality base material, Cement Treated Base. There are countless varieties of CTB designed for different applications, ensuring tailored solutions for specific needs. Here are two examples.

Cement Treated Bases Provide Solutions

250 psi CTB

250 psi CTB (Cement-Treated Base) is designed with commercial contractors in mind, providing a cost effective alternative to crushed limestone under building slabs. Unlike granular materials, CTB prevents moisture infiltration from above and below, keeping the finished grade stable and intact.

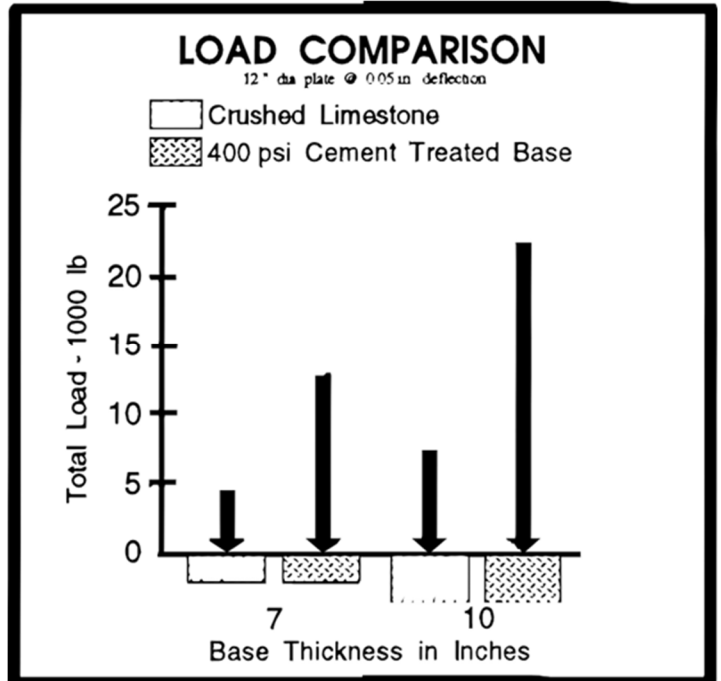
Compared to crushed limestone, CTB has a lower unit weight, meaning that when sold by the ton, it covers more compacted cubic yards. Its lower specific gravity translates to less tonnage required on the job site.

CTB spreads and compacts like other granular materials. Deliveries arrive by dump truck, and compaction should be completed within two hours. Standard compaction equipment can be used, with a vibrating plate recommended for corners. Once compacted, CTB is rain-resistant, allowing concrete to be poured the same or following day.

While CTB does not replace peers or potholes, it enables the use of more economical concrete pavement sections compared to those required on untreated subgrade (soil). This advantage leads to cost savings and improved performance in concrete applications.

400 psi CTB

Incorporating load-carrying bases under building slabs enhances the structural section of concrete slabs. A Cement Treated Base (CTB) with a strength exceeding 400 psi can support three times the load of crushed limestone. This capability allows the load to be distributed over a significantly larger area, resulting in minimal deflection of the subgrade soil.



A paving base constructed with Cement Treated Base will carry more load per inch of depth while distributing the load over a larger subgrade area. These bases are offered in varying strengths ranging from 250 psi to a staggering 2000 psi.

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