



Bitumen Treated Basecourse (BTB): What is it and how do you test it?

Bitumen Treated Basecourse (BTB) layers in New Zealand represent an innovative approach to pavement construction, offering a cost-effective and expedient alternative. BTB often includes premium basecourse aggregate but is normally used as a subbase or subgrade improvement layer. BTB's most effective application is over sensitive subgrades as an improvement layer, often in lieu of cemented subbase layers that require extended curing time. BTB granular pavement layer treated with 3-4% bitumen, enhancing the structural integrity and durability of pavements but not creating a stiff asphalt layer. This treatment helps mitigate issues associated with moisture susceptibility and prolongs the lifespan of the road.

The production of BTB is similar to that of asphalt; however, the input aggregate is not in fractions but rather an all-in aggregate, such as M4 AP40 or GAP material. These are then mixed in an asphalt plant with 3-4% hot bitumen to produce a plant-mixed modified material. The advantage is that placement can be either with a paver or, where existing soils are sensitive, with an excavator.

Testing of a BTB layer depends on its application. It is important to align the testing regime with the expected function of the layer and the risk profile of the project, as well as the assumptions around the design of the overall pavement structure. This presentation includes the overall testing regime and risk management from production to placement of a BTB mix.

In conclusion, BTB layers serve as a robust solution for pavement construction in New Zealand. Their moisture resilience, expedient construction, and structural attributes make them a great alternative to traditional pavement layers.