

The Buzz Around **COLD-Mix**

Travis Eekhout

Asphaltic concrete is a measured mixture of aggregates and bitumen (not tar), and one of the most popular paving materials worldwide. However, it is not all created nor is it used equally, as there are many mix designs depending on the types / variations of raw materials available for use in its manufacture and the proposed application thereafter.



Untouched Pothole.



Cleaning Out.



Excess water cleaned out in preparation for squaring off.

Bitumen World offers a DIY cold pre-mix asphalt patching product, available for purchase in 50kg bags. The fundamental differences between 'Cold Mix' (CM) and 'Hot Mix' (HM) are:

1. General product use (patching vs. overlay)
2. The temperatures at which they are manufactured and applied
3. The general methods and procedure for application

Our CM is initially mixed in the manufacturing plant at a significantly lower temperature than HM, with a special additive added to ensure that it remains pliable and usable for patching once it has cooled to room temperature. It is then bagged and has up to 2 years shelf life when properly stored. This product is predominantly used for pothole patching only.

Although both products set through compaction, HM from the plant generally does not have the same pliability of CM at lower temperatures and therefore should be applied / used within 12 hours depending on the ambient temperatures and conditions of transport, whilst it is still hot (i.e., between 120°C and 160°C).

HM can be used for both bulk surfacing works to vast areas with a paving machine (overlay and wearing courses), as well as general patching works. However, given its inherent working temperatures and time sensitive nature, it does require a significant amount of expertise to handle correctly, sometimes making use of specialised machinery in the process which increases the overall cost.

Due to the special chemical additive, long shelf life, comparative affordability, and overall nature of CM being a more forgiving and generally safer product to handle, it makes for an ideal DIY patching product, albeit a temporary solution in most cases.

The basic patching procedure:

1. Clean out pothole of all loose debris and trim edges to a square/diamond shape, if possible, with vertical sides.
2. Estimate how much product you may need (one bag covers approximately half a square meter area, at 40mm compacted thickness)
3. Place product in previously prepared pothole and tamp down with shovel adequately (note; you may also compact with a plate compactor or pedestrian roller for a better finish)

SIDE NOTE: Bitumen is not TAR!... "Tar" is a generic term for a thick blackish-brown synthetic substance created as a by-product of processing raw coal. It is a toxic and carcinogenic substance which is no longer used in road construction. Bitumen is a naturally occurring by-product of fractional distillation of crude oil and is significantly less toxic and the more preferred option over tar for blacktop surfacing.



Squaring Off.



Excess Debris cleaned out.



Cold Mix added and Compacted.



Finished Patch!