

EMULSION BASED COLD MIX TECHNOLOGIES FOR MAINTENANCE OF FLEXIBLE PAVEMENT

CRRRI has developed environment friendly and energy efficient emulsion based cold mix technologies for repair of patches and pot-holes even in the inclement weather. Cold mixed patching materials have various benefits over hot mixes such as elimination of heating of binder and aggregates, easy handling, conservation of energy and protection of environment.

The major advantages of ready-to- use cold mixes are given below:

- Uniform quality of mix with high stability (stable and durable patches)
- Proper packing with ease in transportation
- Ease in application
- Bonding with existing surface
- Resistance to deformation, bleeding and cracking
- Resistance to stripping and resistance to pushing after placement
- 3-5 minutes time needed to apply materials for patching
- Quick setting and fast development of strength enables opening of road to traffic soon after patch repairs
- Preparation of surface for repairs is minimal
- Compaction by use of rammer only
- Poor riding quality changes to leveled and even road surface.
- Repair is possible even in all adverse climates including wet conditions
- No wastage of materials
- Minimum manpower needed
- Mixes provide quick and efficient repair of utility cuts in pavement

The photographs shown below illustrate the technique,



Preparation of cold mix with emulsion for stock piling the patching mix



Preparation of cold mix with emulsion in tray in remote places



Compaction of cold mix in patch by ramming



Patch and pothole repair with cold mix in Aizawl (Mizoram)



Patch work with cold mix in progress on NH-1A in snow and cold climate area in September, 2007 under Border Roads



Intact Patch work with cold mix after week on NH-1A in snow and cold climate in September, 2007 under Border Roads

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