

ROMIX BTA (Black Top Asphalt)

Polymer Enhanced Seal for Wearing Courses

Product data sheet

COMPOSITION

Romix BTA is a water-based polymer enhanced Bitumen solution specifically developed as an admixture for the sealing of base layers stabilized with **Romix SoilFix SRB-5**.

Romix BTA was specifically designed and developed as an alternative to Hot Asphalt and traditional hot applied bitumen wearing course seals. The product is targeted at environments where hot-mix asphalt plants are inaccessible or do not exist.

Romix BTA can be mixed and stockpiled for 7 days. It is a cold process and does not require any heating prior to application.

Romix proposes the use of **Romix BTA** in areas where hot asphalt and bitumen supply is problematic.

FEATURES AND ADVANTAGES

- Water based – will not contaminate bowsers and tanks.
- Environmentally friendly – will not leach into the environment once applied.
- Cold process – no heat required for the production of asphalt mixes.
- Can be mixed by hand, in concrete mixers or by TLB. Suitable for labour creation in underdeveloped areas.
- Will not harden in lower temperatures (5 deg C to 25 deg C). Hot Asphalt must be applied at minimum 180 Deg C.
- Safe to work with – no danger of burns.
- Waterproof - Protects the base layer from water ingress and subsequent softening of the base layer.
- Can be stockpiled for a period up to 7 days provided it is covered with plastic sheets or tarpaulins.
- Can be applied by manual labour or sophisticated paving equipment
- Appearance like hot asphalt, but reduced layer thickness.
- Will not bleed or melt in hot conditions.
- Flexible – will not crack with ageing. Contains no volatile solvents.

PREPARATION – ASPHALT WEARING COURSE

Cold Asphalt

- Once the base layer stabilization with **Romix SoilFix SRB-5** is completed, “tack” the base layer with a mixture of 20% **Romix BTA** together with 80% water. Care must be taken **not**

to prepare the stabilized layer too smoothly. This could lead to “peeling” of the **BTA** layer under severe shear conditions such as turning and braking of heavy vehicles.

- Use 3 parts 9mm crushed stone from a stockpile.
- Collect and stockpile 2 parts unwashed crusher dust (minus 6,7mm or minus 4,5mm size)
- Lightly spray the crusher dust stockpile with water in order to dampen. This will prevent the crusher dust to form “clumping” in the eventual mix.
- Mix the crusher stone and crusher dust together in another stockpile.
- Pour 1 part **Romix BTA (10% by volume)** resin onto the aggregate mixture and mix through properly until all the aggregate particles are coated with **Romix BTA** resin. If the aggregate is too dry, add some water in order to attain a “treacle sugar” consistency.
- Store the mixture in a stockpile and cover with plastic sheets to prevent film forming and drying.

Application by Hand

- Mark the centre-line of the “tacked” road surface with string and nails.
- Measure, from the centre line, one half of the width of the surface to be sealed.
- Using nails, fix square steel tubing (thickness of asphalt layer + 10% for compaction) on either side of the demarcated section.
- Load one part **Romix BTA** into a water bowser together with four parts water.
- Use a wooden plank to “float” the **BTA** asphalt mix into a level state.
Once the **BTA** aggregate turns black and dry to touch, compact the layer lightly with a ride-on steel drum roller until smooth.
Repeat the process on the other half of the road, using only one set of steel square tubing.
- Once completely dry and firm, mix a 20% dilution of BTA to water (“tack coat”) and spray or broom over the dried **BTA** surface.
- Use a Multi-Tired Pneumatic Roller to “polish” and smoothen the surface.

Application by Automated Mechanical Paver

- Use the same mixing and stockpiling procedure as above.
- Load the mixed **BTA** aggregate onto tipper trucks and cover with plastic sheets or tarpaulins to prevent skin forming and drying.
- After tacking the surface, load the **BTA** aggregate mix into the mechanical paving machine.
- Lay the BTA Asphalt mix onto the “tacked” surface
- Drying, rolling and finishing as per the method described above

PREPARATION – SLURRY WEARING COURSE

Asphalt Slurry

- “Tack” the stabilised surface as per asphalt method above
- Use a 200-300 litre concrete mixer
- Dampen a stockpile of crusher dust
- Use 20 liter plastic buckets to measure aggregate and **BTA** resin
- Start the concrete mixer
- Pour 5 x 20 liter bucket crusher dust into the concrete mixer
- Pour 1 x 20 liter Romix **BTA** resin into the mixer
- Pour a handful cement into the mix
- Add water and continue to mix until a “porridge” like consistence is achieved

- Pour the slurry mixture into wheelbarrows or the bucket of a TLB
- Pour the slurry onto the tacked base layer and spread with squee-gees
- Cut the edges for neatness
- Once the slurry is dry to touch, roll with the PTR (Pneumatic Tire Roller) until a smooth, polished surface is obtained

MIX YIELD

- BTA Cold Asphalt mix** - 3,6 liters **Romix BTA** resin per m2 (30mm thick application)
- BTA Slurry Mix** - 1,8 liters **Romix BTA** resin per m2 (6mm thick application)

TECHNICAL DATA

APPEARANCE	THICK DARK BROWN LIQUID
SPECIFIC GRAVITY	1.04
Ph	8.2
FLASH POINT	NIL
PHYSICAL FORM	LIQUID
PACKAGING	210 Lit, 1,000 Lit Minibulk, Bulk Tanker

Manufactured in South Africa by ROMIX Manufacturing (Pty) Ltd. All recommendations are based on laboratory tests and in-field use experience, and are, to the best of our knowledge, accurate. Since conditions of actual use are beyond our control, all recommendations are made without warranty, expressed or implied.

RI/BTA04
May 2017