In-place base course recycling with straight asphalt

FOAMED FRB CONSTRUCTION METHOD

What is FOAMED FRB CONSTRUCTION METHOD?

It is a construction method which mixes FOAMED ASPHALT made by making asphalt foamy with existing asphalt mix, existing base course materials, and a small amount of cement on the road. It is used as the base course of pavement as reproduction. It realizes excellent mixture nature by reducing viscosity sharply through expansion of asphalt volume, which is more economical than the construction method using asphalt emulsion.

Feature of FOAMED FRB CONSTRUCTION METHOD

Recycling construction method which enables environmental preservation and cost reduction.

- **Environmental preservation**: Recycling method which uses existing pavement materials effectively.
- **High durability**: It has flexibility and is hard to generate a crack.
- **Low cost**: Economical compared with asphalt emulsion use.
- **Excellent mixture nature**: Mixing is easy even for materials with fine fraction and for wetting materials.
- **Prompt opening of traffic**: Hardening quickly appears and traffic can be opened just after construction.
### What is FOAMED ASPHALT

FOAMED ASPHALT is foamy asphalt which we make by adding a bit amount of water and air to heated asphalt, the volume of which becomes 10 to 20 times its original asphalt momentarily. Viscosity of asphalt in this state decreased considerably, so mixture with materials in normal temperature becomes possible.

![FOAMED ASPHALT](image)

### Cross section example of construction

<table>
<thead>
<tr>
<th>Cross-section example 1</th>
<th>Cross-section example 2</th>
<th>Cross-section example 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Existing pavement]</td>
<td>[Existing pavement]</td>
<td>[Existing pavement]</td>
</tr>
<tr>
<td>New surface</td>
<td>New surface</td>
<td>New surface</td>
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<tr>
<td>Surface</td>
<td>Surface</td>
<td>Surface</td>
</tr>
<tr>
<td>Base course</td>
<td>Base course</td>
<td>Base course</td>
</tr>
<tr>
<td>FOAMED FRB</td>
<td>Preliminary crush</td>
<td>FOAMED FRB</td>
</tr>
<tr>
<td>Lower layer</td>
<td>Base course</td>
<td>Lower layer</td>
</tr>
<tr>
<td>Subgrade</td>
<td>Subgrade</td>
<td>Subgrade</td>
</tr>
</tbody>
</table>

### Example of construction formation

- Preliminary crushing
- Temporary shaping and temporary roller compaction
- Additive sprayer
- FOAMED ASPHALT mixture
- Shaping
- Roller compaction

If needed, we remove extra crush material or supply given material for adjustment.

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