mageba optional expansion joint features – optimising benefits

ROBO®STATIFLEX – Reinforcing joint beam
durable, comfort-increasing, noise-reducing
Principle
The ROBO®STATIFLEX reinforcing beam is made of a special polymer concrete known under trade name ROBO®FLEX.
With a combination of high resistance to deformation and simultaneous elasticity, this reinforcing beam reliably prevents the formation of track grooves directly in front of and after expansion joint structures and their emerging from the road surface.
Thanks to its quick curing time, this support and reinforcing system may be driven on again already after 6 hours. This ensures considerable reduction in total construction time particularly in case of renovation.

Design characteristics
- Connects bridge sealing and surface layer
- Prevents formation of track grooves and increases the service life of expansion joints
- Increases the passing comfort of road users
- Reduces passing noise
- Short total installation time
- Suitable for new and already existing joints

Properties
The ROBO®STATIFLEX reinforcing beam is made of special ROBO®FLEX polymer concrete. The reinforcing strip offers sufficient load-bearing capacity for the vertical forces from passing traffic and shearing forces of brake applications.

Noise reduction & driving comfort
Through the possibility of installation of the road surface level with the steel profile, passing noise is considerably reduced and the driving comfort of the passing traffic increased. Additionally, the prevention of track groove formation eliminates impacts on expansion joints (no „jump effect“) and considerably extends their durability.
A significant increase in service life of the expansion joint structure reduces maintenance costs and this solution offers the positive results in steadily low passing noise.

ROBO®FLEX installation
ROBO®FLEX polymer concrete is professionally mixed and moulded into the prepared recess. Thanks to its favourable flow characteristics, all cavities are filled and no additional compression is required. With their very quick curing time, ROBO®STATIFLEX reinforcing beams can be driven on after approx. 4 to 6 hours.

Technical data

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
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<tbody>
<tr>
<td>Compression strength at 20 °C</td>
<td>min. 16 N/mm²</td>
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<tr>
<td>Elastic modulus (pressure)</td>
<td>min. 170 N/mm²</td>
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<tr>
<td>Adhesive tensile strength to sandblasted steel</td>
<td>min. 3.0 N/mm²</td>
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<tr>
<td>Adhesive tensile strength to concrete</td>
<td>min. 1.5 N/mm²</td>
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<tr>
<td>Pot life</td>
<td>approx. 10 minutes</td>
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</tbody>
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mageba expansion joint types

- Single gap joints
- Cantilever finger joints
- Sliding finger joints
- Modular expansion joints

mageba sa – Solistrasse 68 – 8180 Bulach – Switzerland – T +41 44 872 40 50 – info.ch@mageba-group.com