Delivering the job - Production

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Boral Asphalt

Supported by
Overview

• Plant
• Materials management
• Process control
• Mixing
• QA
Plant

160tph Batch Plant

- 6 Cold Feed Bins
- 2.4m dia counter flow drum
- 2.25t mixer
- 3 filler silos
- 3 x 100t finished product silos
- 4 bitumen tanks – electric heated
- Computerised mixing system
Schematic of Plant
Materials Management

Aggregate

- Careful attention to aggregate quality
  - meetings with Quarries
  - stock pile gradings checked
- High percentage crusher dust (90% higher than DG20HM)
- No natural sand
- High percentage passing the 75 micron
Materials Management

Bitumen – EME Binder

• Ensure tank able to heat and maintain temperature of 185°C

• Electrically heated (thyristor control to ensure slow rise)

• Tank flushed prior to taking load of EME binder

EME Binder Temp: 185°C
Process Control

Aggregate

- Calibration of cold feed bins
- High % crusher dust – ran two feeders to ensure accuracy
- Baghouse fines quantities required - checked
- Blend sheets reviewed and checked
- Plant trials to check gradings / binder contents
- Plant scales calibrated
Process Control

• Bitumen
  – Tank selection
  – Circulation
  – Temperature during mixing
  – Inline samples taken during production
  – Samples taken at supplier depot and on delivery from tanker
Mixing and Batching

- Operators briefed on ITP
- Mixing temperature monitored closely: target 185°C and then 180°C
- 75 micron target 8.4%
- Batching cycle times 50sec
- Bitumen temperature maintained at 185°C
Grading Achieved

Sieve size (mm) (not to log scale)

% Passing

0 10 20 30 40 50 60 70 80 90 100

0.075 0.15 0.3 0.6 1.18 2.36 4.75 6.7 9.5 13.2 19 26.5 37.5
## Compliance testing

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<tr>
<th>Sieve size</th>
<th>Max tolerance spec</th>
<th>Actual</th>
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<tr>
<td>13.2mm</td>
<td>+/- 6%</td>
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<tr>
<td>9.5mm</td>
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<tr>
<td>Binder content</td>
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