Alabama OGFC
(E9, E10)

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Content

- Background
- Construction
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Background
Background

- Poor durability led to reduced use of OGFC
- Desire to improve quality via mix tweaks
- NCAT suggested changes, ALDOT approved
- 9.5 mm NMAS with cellulose fibers in E9A
- 12.5 mm NMAS with Forta fibers in E9B
- 12.5 mm NMAS with “ARB12” in E10
- Placement in the summer of 2012.
Construction
Construction

• Better permeability in smaller, finer E9A
• Removed cellulose from E9B “Forta” after trial
• 3 tenths more liquid with “ARB12” in E10
• No significant issues during production
• Testing difficulties with E9B “Forta” mix.
Construction
Construction
Performance
Performance

- 20M ESALs applied since summer 2012
- Less than a tenth of an inch of Track “rutting”
- No cracking in any of the three OGFC surfaces
- No changes in roughness or macrotexture
- Safe level of wet ribbed friction, slight changes.
Performance

![Graph showing performance with falling head permeability vs. equivalent single axle loadings (ESALs). The graph includes different materials like E9A 9.5 mm NMAS PFC w/ Cellulose, E9B 12.5 mm NMAS PFC w/ Aramids, and E10 12.5 mm NMAS PFC w/ #40 ARB, with R² values of 0.80, 0.77, and 0.86 respectively.]
Performance
Performance

![Graph showing the relationship between Cantabro Loss (%) and Average Depth of Mat Scar (mm). The graph includes a trend line and points, with an R² value of 0.75.](image)

- **Average Depth of Mat Scar (mm)**
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10

- **Cantabro Loss (%)**
  - 0
  - 5
  - 10
  - 15
  - 20
  - 25
  - 30

- **R² = 0.75**
Future
Future

- Continue traffic into the 2018 research cycle
- Focus on changes in macrotexture (raveling)
- Determine impermeability traffic level for E9A
- Monitor and report road scar damage for all.
THANKS!

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