Revision of SANS 1083
Aggregates from Natural Sources
Aggregates for Concrete
Road Pavements Forum
November 2018
Changes

• 1976 Aggregates from natural sources
• Version contained:
  – Sand for concrete
  – Sand for bituminous paving mixtures
  – Sand for slurry seals
  – Stone for concrete
  – Single-sized stone for roads
  – Aggregates for base courses
  – Guidance on additional tests, when required and appropriate limits in very detailed Appendices
Changes (cont.)

- 1994 Aggregates from natural sources – Aggregates for concrete
- Version contained:
  - Sand for concrete
  - Stone for concrete
  - No guidance
- C&CI published “Commentary on SABS 1083” containing guidance
Changes (cont.)

• Industry discussions:
  – Need for specification for other aggregates
  – Should tie up with revised COTO
  – Attempt to reduce grading options (40 DR)

• Working Group set up under SANS TC 81 SC 01
• Aggregates for Construction
Changes (cont.)

• Aggregates for Construction
• Will be one document with 6 parts:
  – Concrete
  – Plaster and Mortar
  – Ballast and Gabions
  – Granular materials (G1 to G10)
  – Asphalt mixes
  – Seals and Micro-surfacing
Changes (cont.)

• Two sub-groups
• Sub Group 1 Chair B Perrie covering:
  – Concrete
  – Plaster and Mortar
  – Ballast and Gabions
• Sub Group 2 Chair D Rossmann covering
  – Granular materials (G1 to G10)
  – Asphalt mixes
  – Seals and Micro-surfacing
Changes (cont.)

• Will reflect new COTO approach
• Will contain mandatory requirements and test methods
• Will contain supplementary requirements and test methods
• To constrain size of document, following will be contained in a single electronic document on Industry websites
  – guidance on test methods,
  – supplementary tests, when needed and appropriate limits for each
  – Any additional information
• Hoping to rationalise grading requirements if possible
• Will provide interpretation/guidance in electronic document
Changes (cont.)

- Rationalise grading requirements particularly for asphalt and seals
- Suggested approach
Grade 1

Surface Seal Applications

Performance Specifications!
Grade 1

3 different classes: A, B & C

Dependant on:

• Binder type
• Seal type
• Traffic
<table>
<thead>
<tr>
<th>Sieve size (mm)</th>
<th>Grade 1</th>
<th>Percentage by mass passing</th>
<th>Nominal size (mm)</th>
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Gradings shall comply with the requirements for Grades 1 and 2 with the following exceptions: *0 – 50, **0 – 10

<table>
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<tr>
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<table>
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<th>Dust content: passing 0,075 mm sieve</th>
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Grade 1

3 different classes: A, B & C
Grading similar for all grades excepting dust content and hardness limits
Grade 2

Asphalt and concrete applications

All aggregates > 5mm – Nominal single sizes blended for specific design requirements!
Current Status

• Sub Group 1 covering:
  – Concrete
  – Plaster and Mortar
  – Ballast and Gabions

• Working on all three mandatory and supplementary requirements and guidance information
Current Status

• Sub Group 2 covering
  – Granular materials (G1 to G10)
  – Asphalt mixes
  – Seals and Micro-surfacing

• Working on asphalt and seal grading rationalisation

• Granular materials will be based on COTO Chapter 4
Questions?
Thank you