

Road Pavement Forum

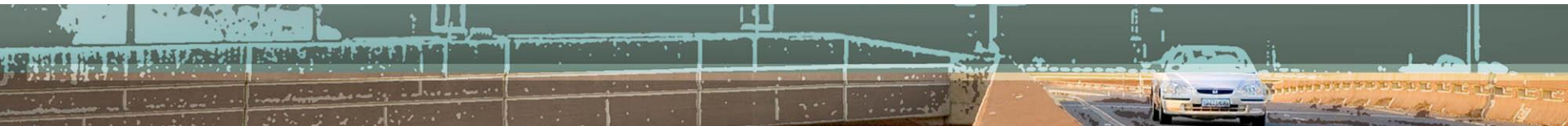
6-7 November 2012

Bitumen Specifications!

Dennis Rossmann



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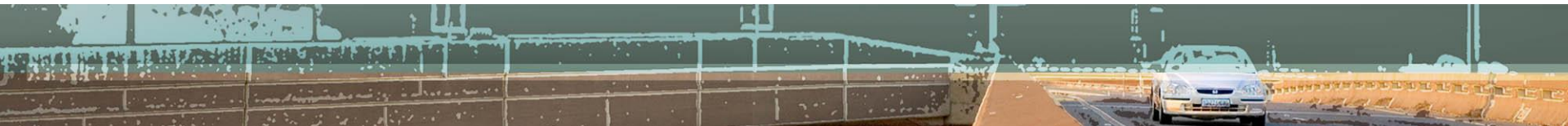


Road Pavement Forum
6-7 November 2012

RPF Task Group for Revision of Modified Binders Guidelines (TG1)



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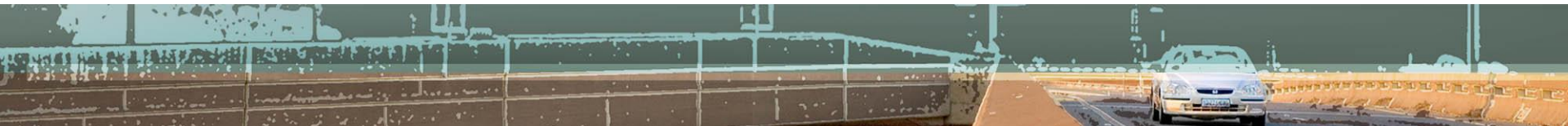


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RPF Task Group for Revision of Penetration Grade Bitumen Specification !



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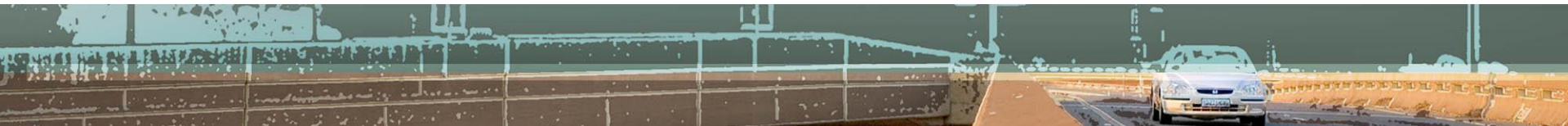


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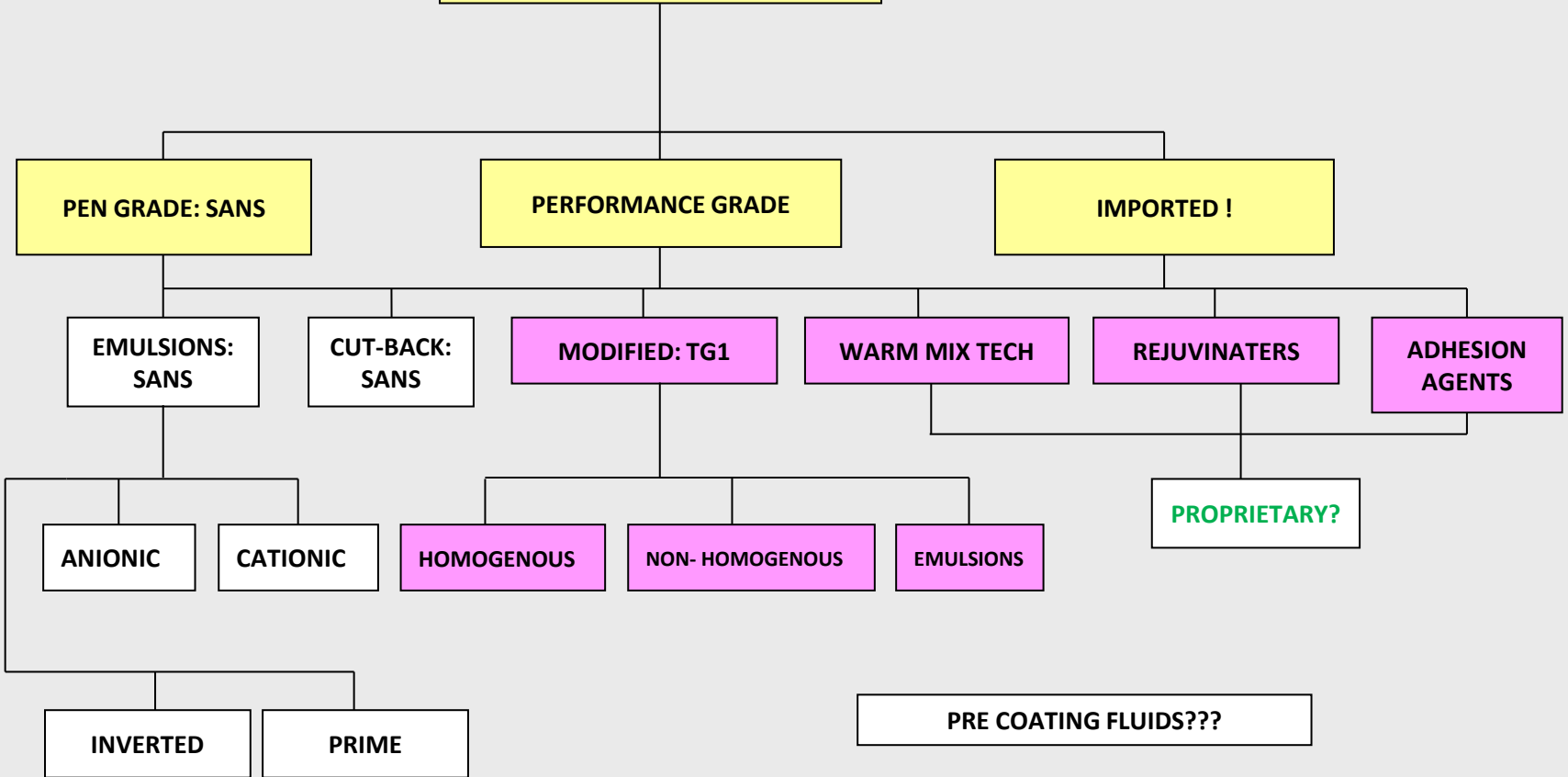
RPF Task Group for Revision of Emulsion specifications!



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BITUMEN!



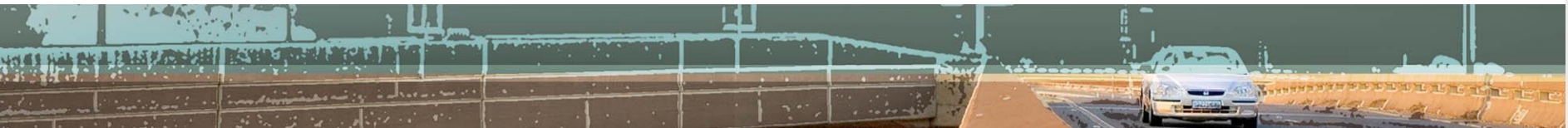
Pen Grade Bitumen Specification

Meeting held on 22 August 2012

- Agreed that all the various working groups be consolidated into 1 to ensure synergy
- Agreed that ALL binder specs should be aligned with SAPDM (Performance classification)



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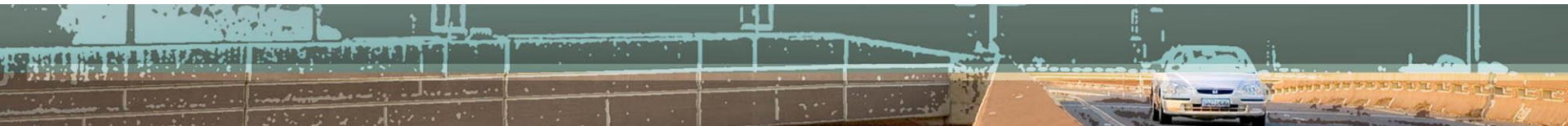
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Bituminous Binders committee

Where are we now???



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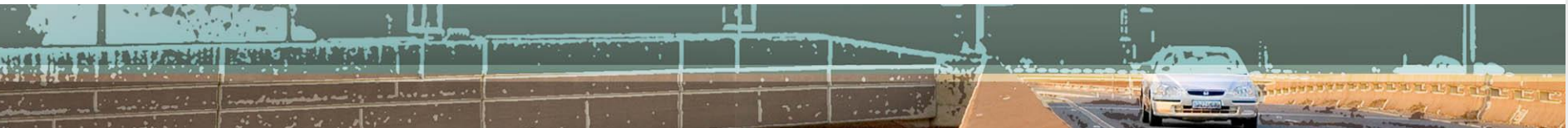


Current specifications

Penetration grades/ranges	
SANS 307	SANS 4001-BT1
40 - 50	35 - 50
60 - 70	50 - 70
80 - 100	70 - 100
150 - 200	150 - 200



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Technical Guideline:

The use of Modified Bituminous Binders in Road Construction

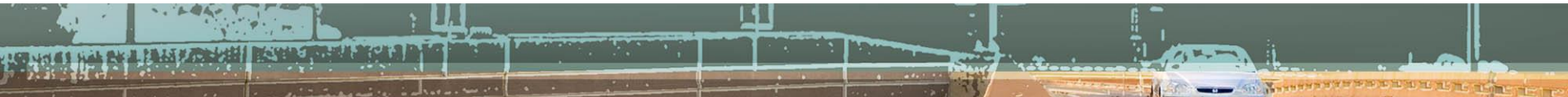


TG 1
Second edition
November 2007



Road Pavement Forum
6-7 November 2012

- Pen-Grades – D. Rossmann
- Performance Grades – K.Jenkins
- Imported Bitumen – J Onraet
- Emulsions – J. Grobler
- Cutbacks – Jaques van Heerden
- Modified Binders – D Rossmann



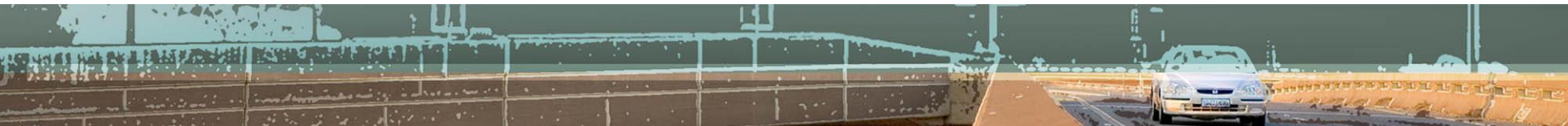
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Bituminous Binders committee

Performance Grades



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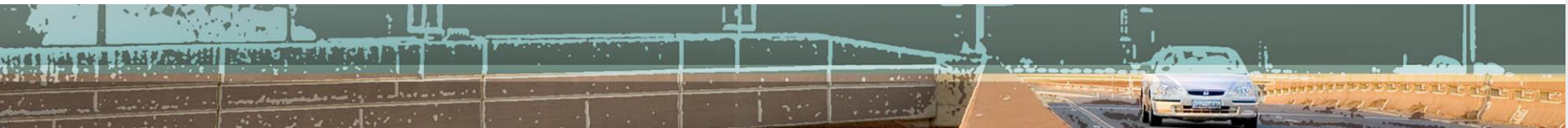
Pen Grade Bitumen Specification

Agreed that ALL binder specs should be aligned with SAPDM

Level 1 – High Accuracy. Full asphalt modulus and binder testing testing is required leading to development of master curves.



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Pen Grade Bitumen Specification

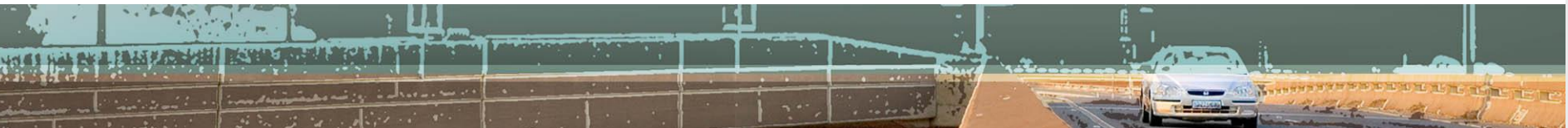
Agreed that ALL binder specs should be aligned with SAPDM

Level 1 – High Accuracy. Full asphalt modulus and binder testing is required leading to development of master curves.

Level 2 – Intermediate Accuracy. No asphalt modulus is required. Binder testing only to provide the input data for predictive equation for estimated moduli.



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Pen Grade Bitumen Specification

Agreed that ALL binder specs should be aligned with SAPDM

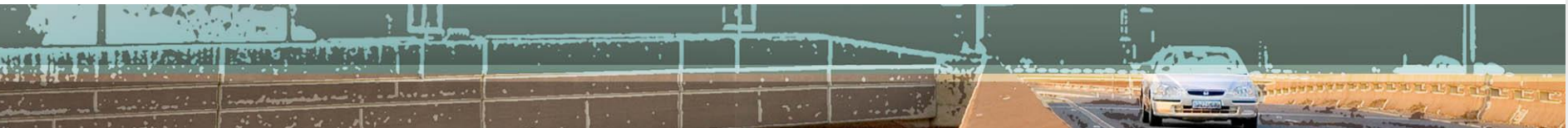
Level 1 – High Accuracy. Full asphalt modulus and binder testing is required leading to development of master curves.

Level 2 – Intermediate Accuracy. No asphalt modulus is required. Binder testing only to provide the input data for predictive equation for estimated moduli.

Level 3 – Lowest Accuracy. No binder testing is required. Typical values of A-VTS for a binder type is employed



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Pen Grade Bitumen Specification

Agreed that ALL binder specs should be aligned with SAPDM

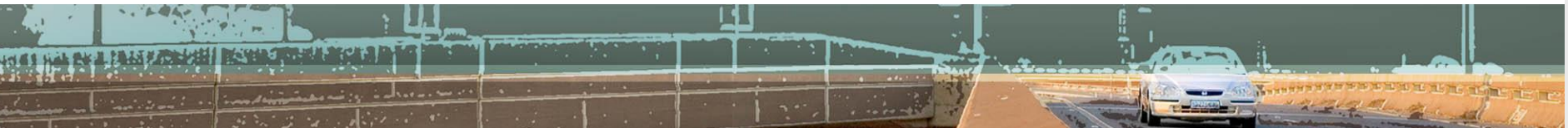
Performance grading testing!

DSR ? ≥ 5 laboratories (outside of research/academic labs) soon to be equipped.

PAV ?



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Pen Grade Bitumen Specification

Agreed that ALL binder specs should be aligned with SAPDM

Sabita Workshop on Performance grading

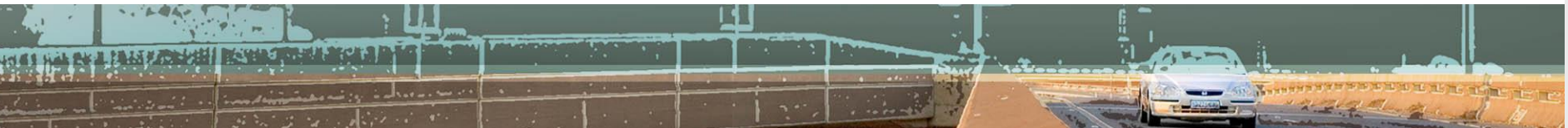
Stellenbosch – 29 November

Hussain Bahia

Martin van de Ven



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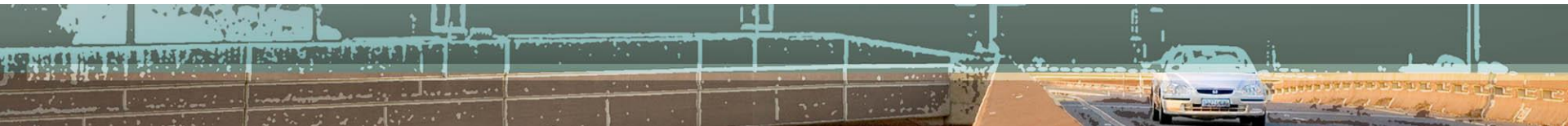
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RPF Task Group for Emulsions?

Emulsion primes (“green primes”)



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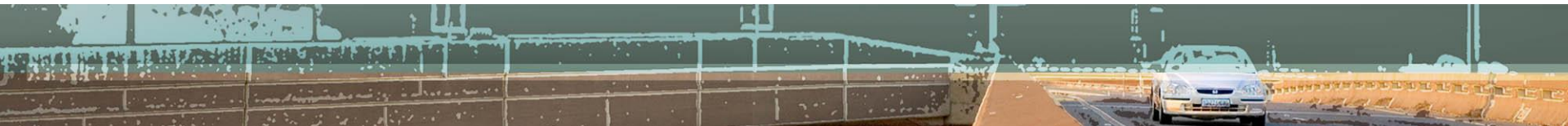


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RPF Task Group for cutback binders



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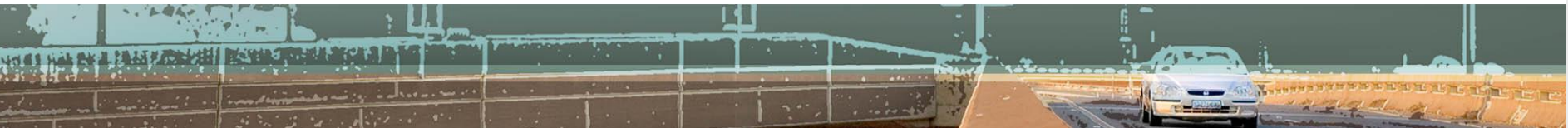


Current specifications

Cutback grades	
SANS 308	SANS 4001-BT2
NIL	MC 10
MC 30	MC 30
MC 70	NIL
MC 800	NIL
MC 3000	MC 3000



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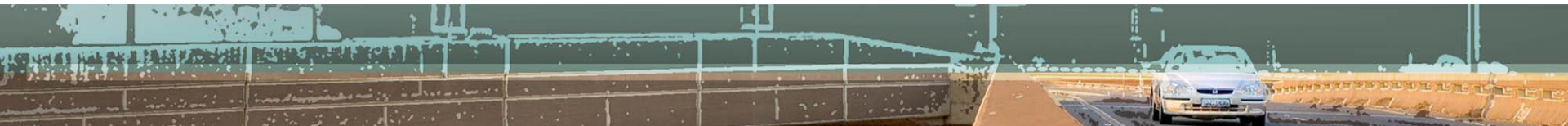
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RPF Task Group for cutback binders:

- SANS grades recently updated – no immediate need.
- Focus on cutting agents (“winter sealing” project)
- “Green” cutters?



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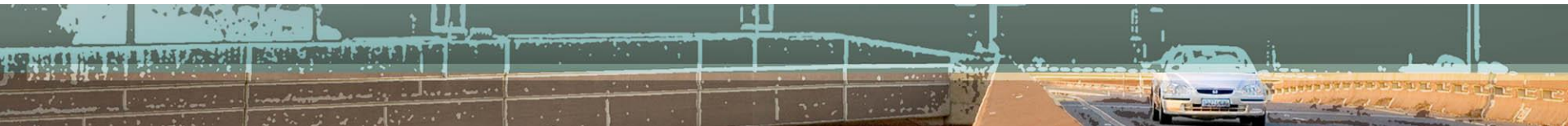


Road Pavement Forum
6-7 November 2012

RPF Task Group for Revision of Modified Binders Guidelines (TG1) – Meeting 30 October 2012



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Technical Guideline:

The use of Modified Bituminous Binders in Road Construction



TG 1
Second edition
November 2007

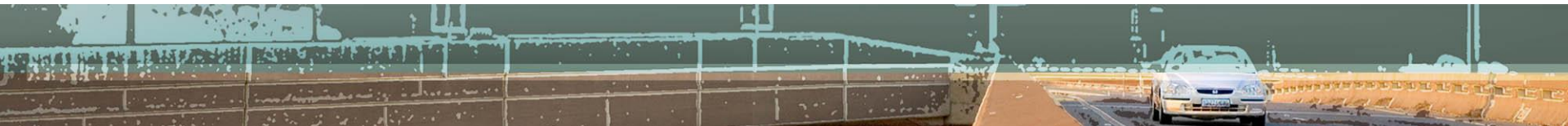


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6-7 November 2012

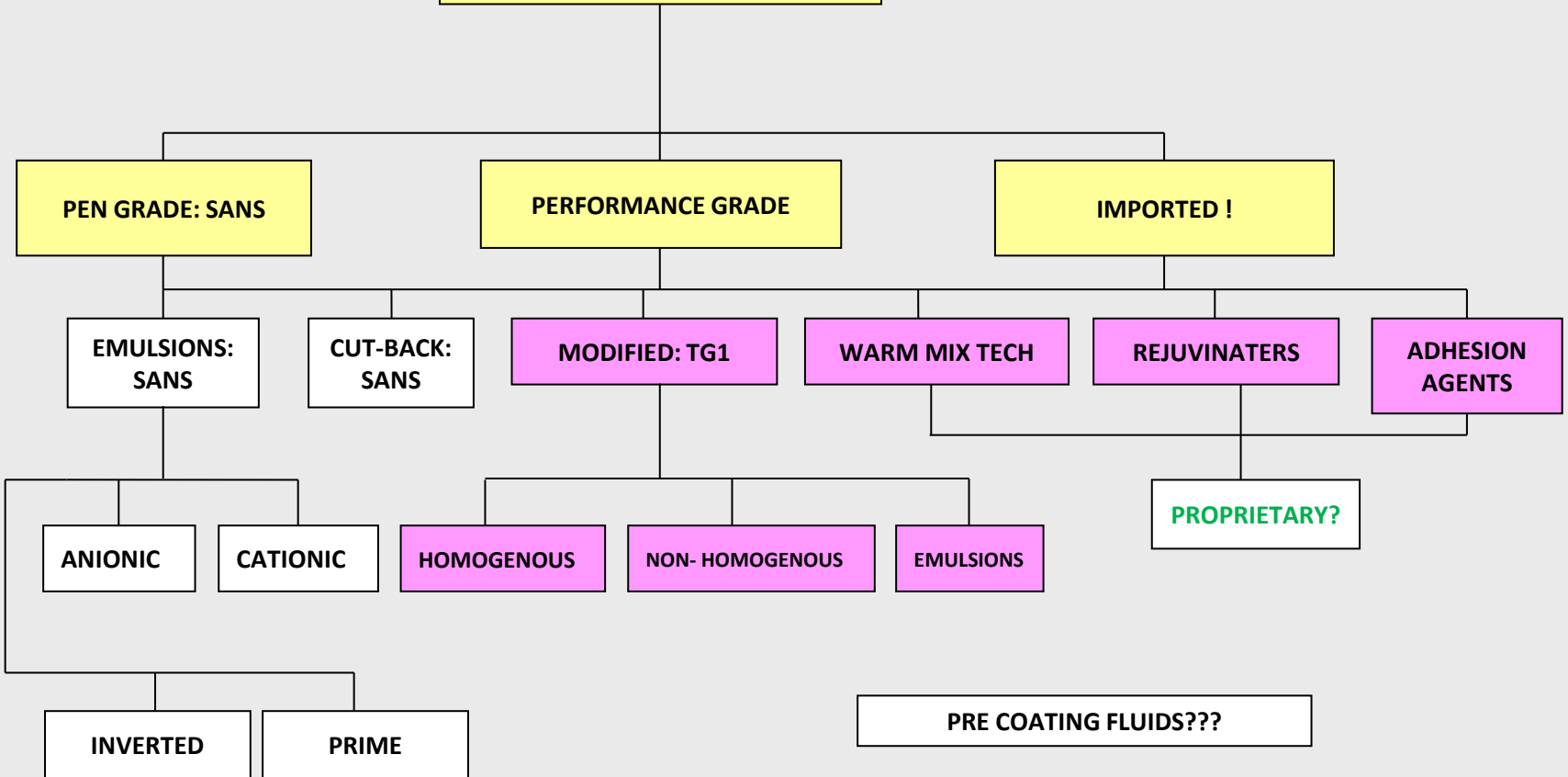
Agreed no “major” revisions required to TG1. Mainly updating and to include other “modifiers/additives”?



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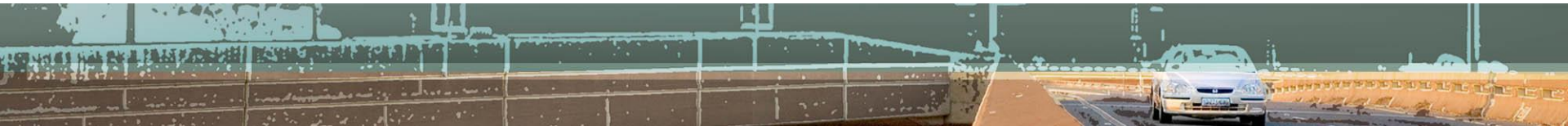
TG1

Working Group leaders

- Chapter 1: Introduction – D.Rossmann
- Chapter 2: OHS – S. Solomon
- Chapter 3: Composition & Characteristics -
 - Hot: J Muller
 - Emulsion: J Louw
 - Warm mix: K Naidoo
 - Rejuvenators: W Nortje/H Marais



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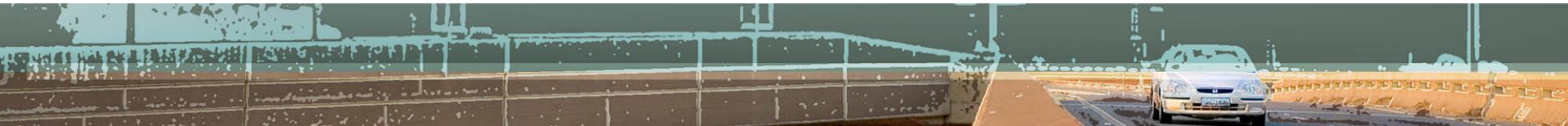
TG1

Working Group leaders

- Chapter 4: Manufacture - ???
- Chapter 5: Classification – “Collective”
- Chapter 6: Product requirements –H Loots/C Roux
- Chapter 7: Selection – D Rossmann
- Chapter 8: Construction – J Grobler
- Chapter 9: Storage and Handling – C Williams
- Chapter 10: Sampling/testing – H Loots
- Appendices: Test Methods – SANS????



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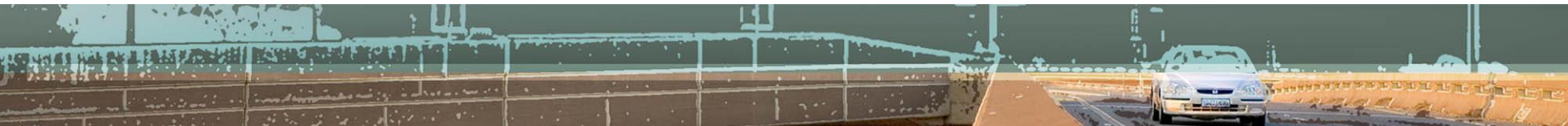
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TG1 Revision Timelines:

Draft 3rd Edition by May 2013
(RPF)



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Conclusions

- The new bit spec committee structure should bring a lot more cohesion to the relative revision process
- Pressure to maintain current momentums

Thank You