

# Fit for purpose certification of road products

Prepared for presentation to the AAPA study tour  
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Erik Denneman

# Outline of presentation

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- Agrément South Africa,
- Ultra thin friction courses (UTFC),
- Cold mixed asphalt,



- Based at CSIR,
- Fit for purpose certification of non-standard products Built Environment,
- Guidelines available for three road construction products:
  - Bridge deck joints,
  - Ultra Thin Friction Courses (UTFC),
  - Cold mix patching materials
- Work done on non-conventional soil stabilizers and binders as well.

# The certification process for UTFC

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- Based on BBA
- Assess historical data and track record if available,
- Inspect existing sections,
- Perform laboratory tests (next slide),
- Witness installation trial,
- Assess quality control processes,
- Interim certification may be considered if the above is passed,
- Perform installation trial at section of suitable conditions for certification class.
- Issue permanent certificate after two years,
- Continuous monitoring

# UTFC performance matrix

5.05

Section	Parameter	Test	Acceptable value	Indicative value	Proposed value
3.6.1a	Aggregate Polish resistance	PSV test	50 □		
3.6.1b	Torque bond value	Torque bond test		≥ 400kPa	
3.6.1c	Skid resistance	Grip tester		≥ 0.66	
		Portable skid resistance tester		≥ 65	
		SCRIM		≥ 0.55	
3.6.1d	In service Texture depth	Sand patch method	0.6 mm		
		SMTD	0.6 mm		
3.6.1e	Resistance against moisture induced stripping	Wheel tracking tests		No stripping	
3.6.1f	Aggregate Crushing Value	ACV test	21		
3.6.1g	Visual condition of pavement	TMH 9	Condition index: ≤ 2		
3.6.1h	Permanent surface layer deformation	Wheel tracking tests			≤ 25 % of layer thickness
3.6.1i	Durability (raveling)	Cantabro abrasion test (mass loss)		Unaged < 35%	Aged report

# The certification process for Cold mix

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- Developed in SA, to be presented at CAPSA
- Assess historical data and track record if available,
- Inspect existing patches,
- Perform laboratory tests (next slide),
- Witness installation trial,
- Assess quality control processes,
- Interim certification may be considered if the above is passed,
- Perform installation trial at section of suitable conditions for certification class.
- Issue permanent certificate after two years,
- Continuous monitoring

# Cold mix Criteria

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Section	Parameter	Test	Acceptable value	Indicative value	Proposed value
3.6.1a	Aggregate Polish resistance	PSV test	50 □		
3.6.1b1	Resistance against moisture induced stripping and permanent deformation	Wheel tracking tests (e.g. HWTT using AASHTO T 324-04)			>5 000 reps to HWTT rut of 20 mm at 30°C
3.6.1b2	Resistance against moisture induced stripping	Modified Lottman test			No disintegration of briquette
3.6.1c	Aggregate Crushing Value	ACV test	21		
3.6.2d	Voids content	Mod. compaction or gyratory compaction at 135 °C		See table C2	
3.6.1e	Visual condition of pavement	TMH 9	Condition index: ≤ 2		
3.6.1f	Field rutting	TMH9	Rut < 20 mm		
3.6.2	Water permeability				Report

**Thank you!**

