

ROAD PAVEMENT FORUM

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Agrément SA Certification of Road Products

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POLICIES

- How do you implement innovation with procurement prescripts and auditing constraints
- Encouraging that a number of Road Authorities, including Sanral and some Metros are “specifying” independently certified products.
- Without doubt this is driving the big push from manufacturers to obtain Agrèment certification for their products!!

CERTIFICATION SYSTEM

- Fit for purpose NOT just about “engineering” properties of the product!
- Should be appropriate for the specific application (Class)
- Fit for purpose – assessed on PERFORMANCE (over specified time)!!!!

Certified Road Products to date

- Bridge joints - 12
- Concrete additives (fibre) - 2
- Roller Compacted Concrete (RCC) - 1
- Asphalt (UTFC) - 5
- Non-traditional soil stabilisers - 2
- Primes - 1
- Trackless Bond Coat - 1
- Surface rejuvenator - 1
- Patching Repair System (infra-red) - 1
- Cold –Mix Asphalt ??????
- Crack sealants ???

Certified Road Products to date

- Weigh in motion systems – 5
- Traffic monitoring systems - 10

COLD-MIX ASPHALT

Progress to date !

- A case of “analysis paralysis” ????
- Have we spent too much time “sweating the small stuff” ????
- Are we trying to “mimic” normal asphalt properties/performance??

COLD-MIX ASPHALT

Certification system approach !

- Health, safety and environmental issues
- Quality management plan – manufacture AND application
- Independent monitoring of performance
- Provision of performance guarantees!!!!

SYSTEMS

- Different classes of mix for specific applications
 - Class 1 – Emergency “throw and go” applications (< 2 years?)
 - Class 2 – Larger and permanent patching (could be same as 1 but different application requirements)
 - Class 3 – Large paver laid permanent application (could be same as 1 or 2, but different application requirements)

PARAMETER	TEST	TYPE 1 ^[1]	TYPE 2 ^[2]	TYPE 3 ^[3]
Aggregate Polish Resistance	PSV test	N/A	N/A	≥ 45 ^[4]
Aggregate Crushing Value	ACV test	N/A	≤ 25%	≤ 25%
In service texture depth	SMTD	N/A	N/A	≥ 0.6 mm
	OR Sand Patch method			
Resistance to Permanent Deformation	Hamburg Wheel-Tracking Test (HWTT) as per AASHTO: T 324	N/A	≥ 5 000 reps to rut of 20 mm at 30°C	≥ 16 000 reps to rut of 6 mm at 50°C
Resistance to cracking	Visual – No fatigue cracking	After 6 months	After 2 years	After 2 years
	AND Four point beam fatigue after ageing	N/A	N/A	Typical values: Sabita Manual 35/TRH 8
Durability	Modified Lottman test After long term ageing	N/A	TSR ≥ 0.8	TSR ≥ 0.8
	AND Visual – No disintegration or loss of material	After 6 months	After 2 years	After 2 years

PARAMETER	TEST	TYPE 1 ^[1]	TYPE 2 ^[2]	TYPE 3 ^[3]
Compaction (construction voids content)	Gyratory compaction (xx gyrations) at application temperature, followed by conditioning of the briquette OR Field cores after construction	≤ 8%	≤ 8%	≤ 8%
Terminal voids content	Gyratory compaction (300 gyrations) at 135°C → conditioning of the briquette	N/A	N/A	≥ 1.5%
Visual condition of pavement	TMH 9 (new version)	N/A	Condition index: ≤ 2	Condition index: ≤ 2
Field rutting after 2 years	TMH 9 (new version)	N/A	Rut < 10 mm	Rut < 5 mm
Water permeability	Water Permeability on field core after construction (BS1377-8:1990)	≤ 10 l/m ² /h	≤ 7 l/m ² /h	≤ 7 l/m ² /h
Bond strength	Torque bond test on field core after one month	N/A	N/A	≥ 400 kPa

Certification System

- **What class of product is to be assessed?**
- **Only class 1 products at present!**
- **After 2 years satisfactory performance current Class 1 products could become Class 2??**

Other Products

- Crack sealing products/systems – HAPPAS (UK)

Other Products

Trackless Bond Coats



Conclusions

- There is industry buy-in for the process being followed!
- Policy makers are also coming “on-board”! Cannot fairly procure products in a “blank-cheque” scenario!!!
- Development of specifications is an iterative process generally requiring regular revision
- Aim is to commence issuing **INTERIM** Certificates for Class 1 products (valid for 2 years) followed by regular monitoring of performance)
- Certification has to be AFFORDABLE! (Development of performance criteria and assessment)



Thank You

