Warm mix asphalts

The French situation

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Australian asphalt pavement association study tour in Europe
Summary

1. Context
2. The role of Sétra
3. Objectives
4. Work structures
5. IDRIM technical guide
6. Evaluation of performances
7. Quantities produced since 2008
1. Context

✓ 03/25/2009: Voluntary commitment agreement

✓ Signed by:

✓ Objectives:
  • Preserve unsustainable resources
  • Decrease greenhouse gases emissions and energy consumption
  • Improve corporations' environmental performance
  • Take part in research and innovation development
  • …

→ These commitments lead to the development of new techniques, including warm mix asphalts.
2. The role of Sétra

➔ Supporting operational services

✓ Who?
  • Scientifical and technical (public) network,
  • Owners and technical engineers (public and private),
  • ...

✓ How?
  • Elaboration of technical reference documents ➔ first step to update the French doctrine concerning warm mix asphalts,
  • Integration of these techniques in the normative reference,
  • Organization of technical workshops to promote exchanges between actors
3. Objectives

✓ Promote warm mix asphalts

• Maintain the sustainability of infrastructure and quality of road network
• Optimize maintenance operations (saving natural and financial resources)
• Reduce workers exposure to bitumen fumes

➔ Significant work concerning the evaluation of warm mix asphalts, their characteristics and performances
4. Work structures

- IDRRIM (Partenarial French institute concerning streets, roads, and infrastructures of mobility)
  - Creation of working groups dealing with topics targeted by the voluntary commitment agreement: warm mix asphalts, recycling,…
  - Consideration of working conditions of workers (working group on health and recycling)
  - …

- Standardization committees (WMA are not standardized yet)

- Device of road innovation support

- Instances of the Ministry of Ecology and Sustainable Development (public concertation)

- Union of the French road industry (private concertation)
5. IDRRIM Guide

✓ IDRRIM technical guide concerning warm mix asphalts:
  • description of the different techniques: additive, foaming, …
  • recommendations for use and implementation for master builders and building owners,
  • Description of additives used in formulas (and the associated safety sheets to be provided by the manufacturer),
  • Contract monitoring

✓ Technical guide in progress, expected in 2012
  • Important because of the normative vacuum on the subject
  • Eagerly awaited by the whole profession
6. Evaluation of performances

✓ Monitoring the quality of national road network

* Road network database
* Identification and location of projects completed in warm mix asphalts
* Exchange groups of contracting authorities

✓ Device of road innovation support – on roads or highways

* Monitoring experimental sections
* About 7 products currently receive these devices: technical monitoring before, during and after completion of projects (evaluation of surface characteristics and performances)
* 2 warm mix products certified in 2011
* At least 3 certificates between 2005 and 2008
7. Quantities produced since 2008

→ Production multiplied by 3 since 2008
→ Proportion is still low compared to hot mix asphalts : ~ 2.5%

Evolution of quantities of WMA produced

Source: IDRRIM
Thank you!

A 75 – Béziers-Valros - Enrobé 3E
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