



Innovative Technologies for High-Speed Roads
Moscow (Russia) - 13 October 2015

Laboratory Design and Quality Control to develop Road Expertise and to Extend Pavement Life

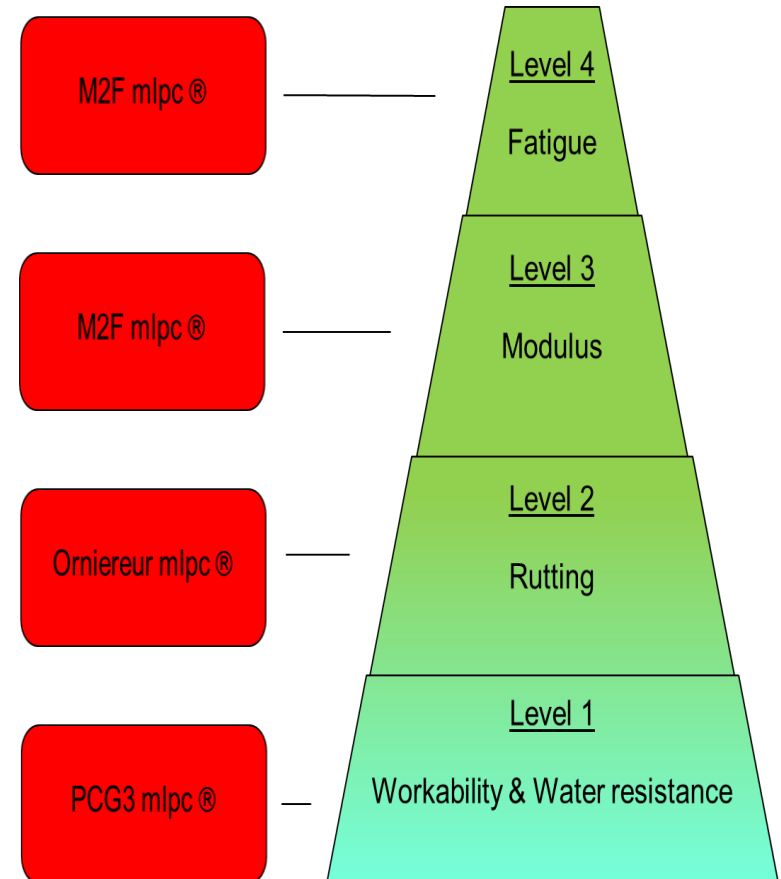
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Design Method Objectives

- The objectives behind a road material design method in the laboratory are basically of three types. The impetus lies in deriving and proposing materials that are:
 - Capable of being successfully implemented on a jobsite,
 - Capable of resisting the loads induced from the rest of the project works,
 - Capable of satisfying the structural durability or wearing requirements of pavements, as specified by project developers.

The approach and the method

- 4 levels of mixture design (depending on traffic, Temperature, etc.)
- Similar to superpave system (first level is a volumetric design followed by increased levels)



Level 1 : Asphalt adaptibility with PCG3

This is the consequence
of a poor asphalt mix
adaptibility



To avoid this problem,
the mix must be tested
in laboratory with the
PCG3 developed by
IFSTTAR



Level 2 : Rutting simulation with ORNIEREUR

This is the consequence of a low resistance to permanent deformations (rutting)



To avoid this problem, the mix must be tested in laboratory with the ORNIEREUR developed by IFSTTAR



Level 3 & 4 : Mechanical properties with M2F

This is the consequence of
a bad resistance to
flexural fatigue



To avoid this problem, the
mix must be tested in
laboratory with the M2F
developped by IFSTTAR



The Partnership

Strong Partnership with the French Administration through exclusive licences for the production and sale of LCPC's equipments



Expertise

- Vectra manufactures LCPC's asphalt mix design equipments in agreement with French know-how and techniques.



A long way from the creation of regional lab's 1963 and today 2015



Anyway nothing's really new : The quality and relevance of asphalt mix design methods exert a strong influence on user safety, as well as on the durability and maintenance costs associated with the infrastructure.

Спасибо