Developments in Surface Dressing Technology
Brief overview of the Fayat Group

Surface Dressing applications and new developments

Micro Surfacing applications

New rules and their influences

Problems with Potholes?
Roads are getting older

 alternating freezing and thawing

FROST before

Pavement
Beads of ice

THAWING after

Pavement
Thaw water

Time

Depth

Ground

FROST

Pavement

Frost Thickness

Lower isotherm 0°C

Upper isotherm 0°C

BREINING SECMAIR
Consequences

Quality of the road

- Loss of waterproofing
- Loss of adherence
- Deformation of the road

Optimal Quality
Min quality

Surface Dressing
Micro Surfacing
HMA
Surface Dressing
Micro Surfacing
HMA

years

10 20 30 40 50
3 types of Surface Dressing treatment

- Full width / straight roads:
  Binder sprayer + Spreader

- Small surfaces / urban areas:
  Synchronous Binderspayer and spreader

- Patching treatment:
  Synchronous Binderspayer and spreader with the new pilot system
Microsurfacing
Air pressure Dosage / Pump Dosage / Pump Dosage computerized
Les enrobés bitumineux : formulation,

- granulats concassés 0/4, 0/6, 0/8 ou 0/10 recomposés environ 100 kg
- Formule cont. ou discont.
  (humidifié en carrière)
- émulsion de bitume (modifié ou non) 60 %
  environ 11 à 13 kg
- 5,5 à 8,5 ppc de bitume résiduel
- eau environ 10 kg
- Possibilité fibres 0,07 à 0,1 kg
- additif dilué 0 à 0,5 kg
- chaux ou ciment 0,75 à 1,5 kg
- régulateur de rupture

Possibilité fibres 0,07 à 0,1 kg
The CE Marking:
Main rules and obligations for the companies:
1- to prove the conditions of laying (environment, dosage...)
2- to store the data at least 5 years
Traceability

Conditions of application

How is the road?

Positioning (GPS)

Collect of the Data

Dosage computerised

Collect of the pictures

Data Bank « MALAXITU »

before and after
Traceability

Conditions of application

How is the road?

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Dosage computerised

Data Bank « MALAXITU »

before and after
Which data do we collect?

- Position GPS positionning of the machine
- Aggregates and binder dosage
- Square meters covered (aggregates/binder)
- Quantity spread (aggregates/binder)
- Temperature binder/air/ground
- Width of laying
- Opening height of the gates
- Working angle (tipper + road)
- Working speed
- Picture before and after the treatment
Example: GPS map- 3 modus:

- Transport (blue)
- Full work (green)
- Spraying (red)
Example: Quantity of binder
Example: pictures before / after
PRODUCTIVITY – Results in situ of the jobsite
Problems with Potholes?

or not…
We have the solution

**SWIFT**

A sustainable solution for potholes
- The solution to repair durably a pothole

- Hot mix asphalt

  - None side effects (bleeding)
  - Working in any seasons
  - Strong repairing
  - HMA is available all over the world
Thank you for your attention