

PEP



Prix Hubert Curien 2006

New generation pigment for asphalt industry

- Cleaner
- Easier to handle
- More economical
- Higher performance
- Health and environment friendly



PEP



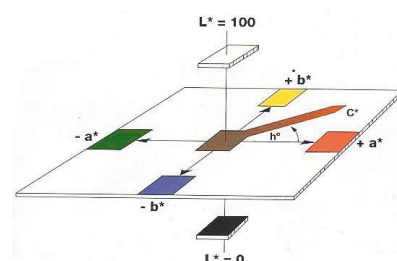
PEP is a new generation pigment for road asphalt tinting. It's composed of red iron oxide encapsulated and pre-dispersed in a polymer master-batch. This new form of pigment is a major innovation which significantly improves performances and implementation of the manufacturing coloured asphalts.

■ Enhanced performance

PEP technology promotes the mix uniformity, ensures better adhesion between pigment and aggregates and reinforces the coloured asphalt longevity. With the « PEP », risk of resurfacing pigment has now been eliminated.

■ High tinting strength

PEP has a 25% higher tinting strength than traditional pigment and also offers a brighter red colour.



Graphe L*A*B* System

■ Easy to process and environmentally friendly

Presented in granular form, PEP is easier to handle and store. Completely dust free, it permanently eliminates pollution which is observed with the traditional powdery form of oxides and also it respects workers, equipment and environment.



■ Typical properties

Granule size	2 mm without dust	
Bulk Density	True density : 3 - 3.9 depending on the colour Apparent density : 1.1 - 1.4 depending on the colour	
Melting point PEP	90 °C	
Melting point Bags	110 °C	
Packaging	Hot-melts bags 25 Kg Big-Bags 1 MT Bulk truck	
Colours available	PEP Red PEP White (Titanium) PEP Yellow PEP Ochre PEP Brown	PEP Blue PEP Green PEP Beige PEP Grey Tint on demand

PEP



■ Condition of use

PEP Red : mix with classical bitumen (35/50, 50/70...)

Others colours : mix with synthetic binders

Materials (aggregates, sand, fillers) : closer as possible to the final shade desired

■ Optimal manufacturing process

Production

Cleaning process : make blind batches (heat aggregate without binder)

Mixing temp : 165°C to 175°C (without temperature fluctuation)

Dosage PEP Red : 2,5% to 3,5% of the total formulation

Others Colours : 1% to 3% of the total formulation

Start-up losses : you may need to remove the first batches

Don't stock the asphalt mix in the hopper (pollution risks)

Batch asphalt mixing plants

Dry mixing time : 8 to 10 seconds

Wet mixing time : 25 to 35 seconds

Continuous asphalt mixing plants

Insert as soon as possible (recycling drum) : for better homogeneity

■ Condition of implementation

Equipment

Make sure that the whole system is clean from normal black bitumen residues before starting mixing operations

Support

Dry surface with an outside temperature higher than 5°C

Temperature

Application for an asphalt mix temperature strictly greater than 135°C

How to use the **PEP** ?

For optimal result during your manufacturing and application process, it is necessary to consider the following recommendations :

It is strongly recommended not to use solvents (Bio or others) : solvents disaggregate bitumen leading to the pigments dissolution and cause dark marks.

Don't do intensive compaction : it can lead to bitumen rise and causing polishing marks (darker area).

Don't incorporate too much filler (intake or recycle) : significantly increases the surface to be tinted and reduces the colour brightness.

Traffic : on a coloured asphalt, tyres generate black marks. For red asphalt, it is possible to mitigate these soils by realizing a less bright shade.

PEP : high tinting strength



Same formula with 2,5% pigment

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