

SUMMARY

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EDITORIAL

Next Appointment, Durban !

"I shall be pleased to meet you at the PIARC World Congress next October"

Yves Ghiron, Publication Manager

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Geopolitical Land Transport

Can Europe build a geopolitical land transport strategy in the Balkans? (Part one)

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Any reflections on the geopolitical aspects of motorways and more generally of land transport in Europe requires, for diagnostic clarity, a distinction between the EU bloc and the former socialist countries.

The first group is of course far from homogeneous: the EU comprises, for example, the sub-group of countries in which the motorway infrastructure is almost completed, that in which this infrastructure is far from being completed, and the sub-group of intermediate countries and that of the Nordic countries.

However, the second group is even more heterogeneous, owing to its recent history, even if Central and Eastern European Countries (CEECs) have been exhibiting some common points since the fall of the Berlin Wall.

Jean-Antoine Winghart

Motorway Works Coordination

Building the Wroclaw-Nogawczyce section of the A4 Motorway in Poland

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From 1997 until 2002, Poland built with the participation of the European Community, a major section of the A4 Motorway which links Germany to the industrial centres of southern Poland. As consequence of the importance of this Project, many Polish and European companies were involved and the mix of methods, habits, regulations characteristic to each country was one of the difficulties.

But a good co-operation between all parties resulted in the completion of works in due time, in the transfer of French technical know-how - especially new asphalt control techniques - to the Employer's satisfaction.

Roland Perrier

Innovation Programme

Roads to the Future (RttF)

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In the Netherlands, contracting is a sensitive if not essential element in the realisation of a successful innovation. This article presents this aspect in the innovation programme Roads to the Future (RttF). This programme has been described during the French PIARC Road Innovation Conference held in Paris in March 2003.

Theo Van De Gazelle

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Exit lane toward Wroclaw on the completed motorway with an original overpass and specific road furniture equipment

Pavement Design

Pavement design: a rational approach

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The French method of pavement design and strengthening is a rational one, based on calculating the resilient stresses and strains generated in roadways. It presupposes thorough knowledge of the mechanical characteristics of the materials employed, as well as control over their manufacture and implementation.

It makes it possible to adjust the thickness of the structure to the local context of bearing capacity of the roadbed and of traffic, according to the materials used and the investment/maintenance policy adopted.

Comité français pour les techniques routières (CFTR)

Airfield Pavement Design

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In an international context featuring the advent of increasingly heavy aircraft with new types of landing gear (B777, A380 etc), this article describes recent research concerning the structural design of airfield pavements, as part of various programmes: renewal of airfield pavement structural design methods, and load testing on A380 PEP runways (the only full-scale test programme for airfield pavements in Western Europe). These programmes all have the same objective: to obtain a better understanding of the real behaviour of pavement materials subjected to increasingly heavy and complex aircraft loads.

Cyril Fabre, Patrick Lerat, Jean-Maurice Balay

Research and Design

Emulsion cold mixes: for a new design method 41

The ability to control the properties of cold mixes is an important technical issue. Colas S.A. has conducted a research project to develop a method for characterizing mixes of this type. This article is the seventh and last in a series published by the *Revue générale des routes et des aérodromes*. The first one has been also published in *Europeanroads review* 1-2002. Its target is to recapitulate the different stages of methodology and underline key points.

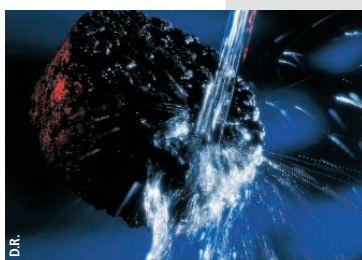
Jean-Pierre Serfass

Modified Road Bitumens

European standardisation for modified Bitumens Work progress of CEN/TC 336 working group WG 4 51

After 13 years of toil and 33 European meetings, the "Modified bitumens" working group WG4 of the European Standardisation Committee (CEN) is still working on the harmonisation of test methods and specifications in Europe. A package of nine test standards and a standard for specifications is under preparation. Despite all the obstacles encountered, it would appear that at last we are heading, steadfastly, towards the final phase of the formal vote during 2003.

Didier Jamois



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Nynas Nyguard, Local Development for a Coherent Global Product Range 58

The modification of bitumen with polymers or other additives has for a long time focused essentially on improving the mechanical properties. During the 90's, other limitations of bitumen had to be considered. The fuel resistance of bitumen had to be improved in order to counter the limitations on the use of coal-tar based binders because of their environmental impact.

Nynas has worked with a number of authorities and contractor on various aspects of the product development. In the United Kingdom in co-operation with the road contractor Tarmac, in Sweden with Skanska at the request of the military airport authorities, and in the Netherlands for both road and industrial applications.

Didier Carré

Assessment of the Pulsed Creep Test to Predict the Rutting Performance of Asphalt Mixtures 64

Doubt has been cast on $G^*/\sin\delta$ as to its predictive capability for some modified binders. Alternative proposals have been made including the measurement of an accumulated strain parameter, determined from a repeated creep and creep recovery test. This proposed method is described and compares the data obtained from the test with previously reported rutting data. It is considered timely to point out that, within Europe, the next suite of binder specifications and associated test methods are expected to be performance related. The discussion in Europe has already commenced in earnest and thus far, a number of possible methods are being proposed for consideration. It is hoped that this paper will contribute to the discussion.

Jim Carswell, Olivier Moglia

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Rolling
cold mix asphalt
wearing course



Continuous Hot Recycling

Some tendencies on the recycling of bituminous roads in hot continuous mix plants 69

Many factors, economic, legal or even ecological, weigh in favour of the development of bituminous pavement recycling techniques. The cultural dimension plays an important part in the adoption of recycling. However, to this parameter must obviously be added the overall economic conditions, including the cost of virgin materials; traffic configurations tolerating periods of interruption; structural design parameters; and so on. This article presents briefly the continuous hot recycling solutions that the Group have developed.

Jacques Bonvallet, Thierry de Sars