

On the Road

DEGAROUTE® based road markings

Issue 03



Anchieta - Imigrantes highway, São Paulo State- Brazil

[PHOTO © Jorge Hirata]

Environmental performance combined with a high contribution to road safety

Road authorities worldwide have increasingly been placing a high emphasis on road safety by applying environmental performance criteria to their bidding decisions. Being that road markings are one of the only safety devices that accompany road users throughout their entire journey, it is very important to rethink their environmental performance and, moreover, to demand from them functionality, rather than just being a white line on the road. Throughout the decades, Cold Plastics (based on methacrylic resins) have contributed to road safety through their long service life, stability at high temperatures and increased visibility at night and during rainfall.

Besides the important safety aspects of Cold Plastics, their high durability is a proven contribution to an environmentally friendly road infrastructure. While other road markings have to find ways of improving their performance in order to reduce their impact on the environment, Cold Plastic road markings, through their high durability and reduced raw material consumption, have been maintaining a low environmental impact since the 1960s. In this newsletter edition you will learn how Ecovias, one of the most important road concession companies of Brazil, is contributing to road safety through the use of road markings with high environmental performance.



**Dear Readers,
Valued Customers,**

The improvement of transportation infrastructure is becoming an increased focus of authorities and is gaining significant importance in Brazil. Brazil's economy has acquired a strong position globally. With agricultural, industrial and service sectors constantly emerging, the country is becoming a global heavy-weight. Nonetheless, challenges exist, and transportation infrastructure has to keep up with this economical growth. With the hosting of the FIFA World Cup in 2014 and the Summer Olympics in 2016, the need for an adequate transportation infrastructure in Brazil is enhanced and becomes a necessity when considering safety and environmental issues. The outstanding durability of DEGAROUTE® road markings has not only played a major role in increasing road safety in countries around the world, but has also been a main contributor to the resource efficiency and environmental performance of the various systems offered. We are very convinced these benefits will enhance the transportation infrastructure in Brazil, and being part of that is a great pleasure.



Peter Reinhard
Business Director
Road Marking



Debora Rebuelta
Regional Sales Manager
South America

Major Brazilian highway uses sustainable road markings

Cold Plastic road markings (MMA, methacrylic resins based) are being used on one of the most travelled highways in São Paulo to reduce the number of car crashes, decrease the need for maintenance interruptions and meet specific environmental requirements.

Ecovias, the concession company that operates two of Brazil's main highways, is committed to environmental preservation, which is even evident in their name. Since 1998, they have been operating the highway system Anchieta-Immigrants, which connects the metropolitan region of Sao Paulo and the southern coastal cities of the state. Cold Plastic road markings were applied in one of the most critical parts of the highway to provide high durability and a greater safety contribution for road users, all while maintaining Ecovias' guiding principle of sustainability. In 2007, Ecovias applied the cold plastic road marking system on the Anchieta Highway (SP 150 between Km 40 and 55, northbound and southbound), totaling an area of 14,000m². The Anchieta Highway is the main route linking the capital of São Paulo to the port of Santos, the largest in Latin America, and has an average daily traffic (ADT) of more than 26,000 vehicles, consisting mostly of heavy vehicles.



Anchieta Highway, km 44 - km 48, DEGAROUTE® Cold Plastic Structure Marking

Due to the high traffic volume on this section of the highway, the road marking material is subjected to increased wearing as cars pass over the lanes and travel around sharp curves. Based on the characteristics of the highway and the increased levels of rain experienced throughout the region, a unique product that offered greater durability and higher visibility at night and during rainfall was required



DEGAROUTE® Cold Plastic Structure Marking

[PHOTO © Ecovias]

High safety profile and environmental performance

Cold Plastic was considered to be the most appropriate road marking system for this project and was applied using two different methods. Extruded stop bars were applied to reduce the speed of vehicles, while structured (agglomerate) lines were applied to increase the visibility of the markings in wet conditions where the risk of car crashes is heightened. "The cold plastic road markings were chosen due to their high durability over previously applied products. In addition, the new markings reduce traffic disruptions caused by maintenance, thus reducing the inconvenience caused to drivers during outages," said Naélson Cândido, Engineer and Coordinator of Paving and Signalization at Ecovias. The strong ecological appeal of nearly zero VOC emissions, coupled with high durability, made road markings based on methacrylate resins a clear choice in meeting the environmental sustainability requirements of Ecovias.

When developing their activities, Ecovias pays special attention to the environmental impact of all projects, including road work. Being the first highway concession company in the world to obtain ISO 14001 certification, the environmental performance of products play a special role in the buying decisions of Ecovias. "In our case, experience shows that cold plastic road markings were best suited for our conditions," certifies Naélson Cândido.

Legal notice

Published by

Evonik Industries AG
Rodenbacher Chaussee 4
Building 265
63457 Hanau-Wolfgang, Germany
PHONE +49 6181 59-5104
degaroute@evonik.com
www.evonik.com/degaroute