

RED BOXES FOR MOTORCYCLES BALI, INDONESIA



PROJECT OBJECTIVE

Motorcycles have become a popular and affordable means of transportation in low- and middle-income countries. With over 100 million units, Indonesia has the largest number of motorcycles in the world.

Since more than half of road users are motorcyclists, the Indonesian government started to focus on how to better organize them on the roads. To improve the performance, especially of intersections, the Institute

of Road Engineering proposed a traffic engineering approach where red motorcycle boxes separate the traffic between motorcycles and other types of vehicles at red lights. Within these boxes, motorcyclists are able to stop in front of other types of vehicles, allowing them to proceed through the intersection first when the traffic light changes.

Due to its long-term performance, UV resistance and, most importantly, its excellent skid resistance proper-

ties, the Indonesian project used DEGAROUTE® based cold plastic MMA area markings to apply the red boxes. MMA has the unique ability to fuse to itself, creating a single layer which no other pavement markings can offer. This benefit eliminates the common failure of inter-coat adhesion and early delamination.

SITE		APPLICATION	
COUNTRY	Indonesia	SYSTEM	Anti-skid area marking
LOCATION	2 intersections in Badung (Laswi and Pasteur), 2 intersections in Balis (Ubung and Dewa Ruci)	SURFACE	Asphalt
APPLICATION DATE	2012	EQUIPMENT	Manual application
		THICKNESS	Approx. 3 mm (118 mils)

PERFORMANCE

- Traffic conflicts decreased by 40% after implementation of red motorcycle boxes
- Improvement of traffic flow after implementation of red motorcycle boxes of up to 13%
- Long-term performance: resistance against wear, color stability and UV-resistance
- Excellent skid resistance properties, also during rainfall