

BRIGHTER AND BETTER ALL-WEATHER ROAD MARKINGS IN MALAYSIA

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ABSTRACT

Road markings are essential in providing delineation to the road users. They should be visible especially under poor lighting. The most critical time is at night when it rains. Malaysia have started using all-weather thermoplastic as road marking materials since 2010 which incorporate special reflective elements which are capable in giving relatively high retro-reflection even though when they are submerged in thin film of water. However, it was observed that the brightness of this more costly road marking material at some locations does not last long. So, what could have gone wrong? This paper highlights some good and bad practices in laying the road markings which result in satisfactory and poor performances respectively. Correlations between the brightness and durability of the road markings with the various procedures of heating and laying the thermoplastic powder, different qualities of the powder, inter-mix and drop-on reflective elements, different techniques in incorporating drop-on reflective elements, variation in the heating and laying temperatures, and the conditions of the road surface during laying, are discussed. These findings will be used to improve the standard specification for brighter and longer lasting road markings.