

CASE STUDY



COLD APPLIED RENOVATION OF HEAVILY TRAFFICKED INTERSECTION ROAD MARKINGS



Laois County Council



MEON
DELIVERING GREAT SURFACES

PROBLEM:

Laois County Council were experiencing premature wearing of road markings at two roundabouts on the R445 Dublin Road, in Portlaoise. This was impacting the safety of road users and pedestrians, increasing the risk of accident or injury at this busy location, adjacent to a local hospital and built-up residential area. Due to the high stress nature of traffic at these intersections the council were seeking to trial a road marking material with improved durability, to reduce the need for regular ongoing maintenance of the road markings.



SOLUTION:

As part of a road design upgrade at this location, the council's engineers specified the use of methyl-methacrylate (MMA) cold plastic road marking material to be hand-applied to the existing markings, for renovation and restoration of their visibility, following civil works. MacRoads, the chosen line marking contractor, undertook the task, of renovating and restoring all the roundabout markings and pedestrian crossings at the location, in September 2019, using Meon's UltraLine L210 MMA material, with EchoStar 10 SRT Glass Beads. This cold applied MMA material was chosen for its hard-wearing characteristics and proven track record in durability.

RESULT:

Since the application of UltraLine L210, in September 2019, the road markings have shown only minimal wear in high traffic wheel track locations, such as the pedestrian crossing panels. Traditional methods of practise with thermoplastic markings at a high traffic location, would require refreshing every 1 - 2 years. Renewing of this new cold-applied MMA line marking paint is not expected within the next 3 years, demonstrating the whole-life cost saving and a great return on initial investment. Furthermore, based on a independent study, the use of this cold-applied MMA road marking material has returned a reduced carbon output of up to 60%.



SYSTEMS USED:

Spectrum UltraLine L210 | Cold Applied MMA Line Marking Paint



Spectrum UltraLine L210 is a methyl-methacrylate (MMA) cold plastic line marking paint that is ideal for high wear markings on roads. It has a very simple application method that uses little equipment, making it possible to apply markings for many situations such as informative markings. UltraLine L210 line marking paint is very hard wearing and outperforms traditional thermoplastic, lasting at least 3 times as long.



Echostar 10 BCP | Type 1 Reflective Glass Beads



The Echostar 10 glass beads are high performance beads with a very high physical and chemical resistance and have excellent retro-reflectivity due to a high quality manufacturing process ensuring over 80% bead roundness. Echostar 10 is a Type 1 bead which is designed to provide retro-reflectivity in dry conditions. The Echostar 10 beads are 850-125Qm which is suitable for use on line marking material applications of at least 425Qm DFT.



PROJECT OBJECTIVES:

SAFETY



Focused on improved road safety through performance whilst removing high risk operations in support of the industries Zero Carbon goal.

DURABILITY



For every application, we aim to be able to demonstrate ways to reduce Whole-Life costs through improved system performance.

SUSTAINABILITY



Supporting central government Decarbonisation strategy with a goal to reach net zero by 2050.