

# **Quality Marking Services Limited**

www.qmarkings.co.uk



A38 Highways England Area 1

June 2016

#### Introduction

Quality Marking Services (QMS) were approached in 2014 by the managing agent for what was then the Highways Agency in Area 1 to deliver **QMS HyperLine™ ULTRA**. This unique overspray system is specifically designed to enhance the appearance of road markings at night, in both dry and wet conditions.

Area 1 encompasses the A38 and A30 in Devon and Cornwall between Exeter and Penzance. This was managed by EnterpriseMouchel on behalf of the Highways Agency (now Kier Highways on behalf of Highways England).

QMS HyperLine™ ULTRA is an extremely high performance road marking product, for application onto existing road markings under mobile traffic management. The system is applied at high speed with a cure time of under one minute.

### Location

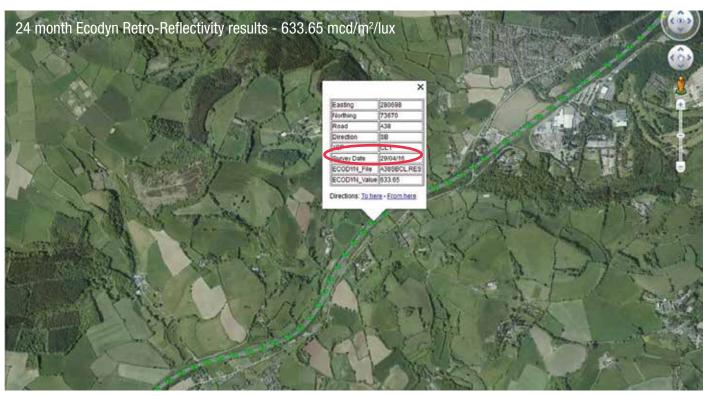
The trial site was a six kilometre section of lane line on the A38 carriageways in Devon between Bovey Tracey and Ashburton in both directions. This particular route is heavily trafficked and includes numerous bends and elevation changes. It was therefore considered perfect to thoroughly and rigorously test the **QMS HyperLine™ ULTRA** system.

#### **Material**

**QMS HyperLine™ ULTRA** is specifically designed to provide exceptionally high levels of retro-reflectivity at night in both dry and wet conditions. It was because of these fundamental benefits that it was chosen for a trial.

The high quality solvent free acrylic resin contains no plastic and works together with the specially selected glass beads providing exceptionally high levels of instant and sustainable reflectivity.

The glass beads are formulated from high index glass with a greater refraction than standard beads to meet the performance requirements of **QMS HyperLine™ ULTRA**.



Any surface... We've got it covered!

## **Delivery**

The programme was carried out under mobile traffic management at night, installing the system at a speed of six kilometres per hour. The section took two hours to complete ensuring minimal disruption to the road user and provided an instantly visible improvement in the retro-reflectivity of the road markings.



"This new product developed by QMS is a marked improvement over the previous product which itself has performed well over many years on the Area 1 network.

The benefits are clear to see when travelling the road network at night, whether in dry or wet conditions. The reflectivity of this new line type is not far from the performance that we would normally expect only from a road stud.

I would fully support the application of this high visibility road marking system, particularly in areas where the road alignment / geometry is less than desirable."

Matthew Wonnacott Network Delivery Manager Kier Highways

#### Results

Following the initial works, an independent retroreflectivity survey was undertaken demonstrating 750mcd/m²/lux in dry conditions and in excess of 300 in the wet. The system demonstrated continuous high performance and two years post installation, an additional reflectivity survey was carried out proving in excess of 550mcd/m²/lux levels in dry conditions and over 100 in the wet.

The results confirm that **QMS HyperLine™ ULTRA** is fully compliant achieving the highest levels for reflectivity defined in BSEN 1436:2018 for both dry and wet conditions.

BSEN 1436:2018					
At Installation			At 24 months		
Dry	R5	300mcd	Dry	R3	150mcd
Wet	Rw4	75mcd	Wet	Rw2	35mcd



"When we initially discussed the use of HyperLine™ ULTRA with EnterpriseMouchel, there was an immediate excitement to see what could be achieved from using the high index glass beads.

Meeting the highest requirements of retroreflectivity after 24 months on such a busy section of dual carriageway is a fantastic achievement.

We were delighted to win Roadmarking Innovation of the Year 2016 from the RSMA due to the success in performance"

Greg Clark QMS Managing Director





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