



**HEINTZMANN** | Group

# ULTRAGUARD™

Highly retroreflective marking system  
applicable on all vehicle restraint systems

**SOLOSAR**

ROAD SAFETY SYSTEMS • STREET FURNITURE



Innovating Responsibly Since 1914



Everybody faces these  
kind of situations

A circular inset showing a dark road at night with a yellow dashed line in the center. The scene is very dark, with only the line and some faint lights visible.

Darkness

A circular inset showing a car driving on a snowy road during a heavy snowfall. The car's red taillights are visible, and the road is covered in snow with tire tracks.

Snow

A circular inset showing a car driving through thick fog. The car's headlights are on, and the fog is very dense, obscuring the road ahead.

Fog

A circular inset showing a view through a car window with rain on the glass. The rain is heavy and obscures the view of the road ahead, with some blurred lights visible.

Rain

There is a **SOLUTION...**



# ULTRAGUARD™



**Innovation**



# HIGHLY RETROREFLECTIVE MARKING SYSTEM APPLICABLE ON ALL VEHICLE RESTRAINT SYSTEMS



## What is ULTRAGUARD™ ?

ULTRAGUARD™ is a combination of a specially formulated water-based paint and high-reflective glass beads that can be applied vertically to all type of road restraint systems (guardrails, concrete barriers, mobile safety barriers, etc.).

ULTRAGUARD™ provides a glare-free, three-dimensional, continuous perception of the roadway, like an Ariane's thread, guiding road users in darkness and in bad weather, thus ensuring, better safety.

The innovative application trolley is a unique and patented device (EN 2.342.292) and can be installed on any type of road restraint system.

It allows the simultaneous application of paint and glass beads. The trolley can be connected to all marking machines on the market.

ULTRAGUARD™ has been developed to be used in addition of the road markings to give the driver a full perception of the road.

An exclusive partnership between Potters and SOLOSAR.



## ULTRAGUARD™ in numbers

# +/- 2 to 3 km/h

This is the possible output of ULTRAGUARD™ per hour of application.



# ULTRAGUARD™

## A HIGH-PERFORMANCE SYSTEM THAT IS EASY TO USE

### A SUCCESSFUL COMBINATION



Innovative application  
equipment

- Designed exclusively for vertical marking
- Suitable for all marking machines
- Adaptable to any height or surface type
- Quick and easy installation and cleaning



High performance  
water-based paint

- Very strong grip to a variety of surfaces
- Designed to be applied to vertical surfaces without sinking. Drying time between 5 and 10 minutes: 5 minutes will be set to touch
- Easy and fast to apply from 5° C
- Formulated for long lasting effectiveness



High refractive  
index glass beads

- Also used for airport markings
- Formulated to be up to three times more reflective than glass beads used in road markings.
- A granulometry in accordance with EN 1423 and with a refractive index class C according to EN 1436



## ULTRAGUARD™ in numbers

1.9

This is the refractive index of the glass microbeads, which increases the reaction time on the road and warns users of danger. The retroreflection is about 1200 mcd/lx/m<sup>2</sup>.



# ULTRAGUARD™

## A SYSTEM WITH A NUMEROUS OF ADVANTAGES

### Increased reaction time

It allows drivers to increase their reaction time to obstacles and dangerous driving conditions.

### Increased guidance efficiency

Guides drivers more effectively through changes in road direction or curves.

### Non-polluting

Avoids the phenomenon of light pollution (no lighting columns, no upward reflection of light, no disturbance of the human sleep cycle or insects cycle).

### WHY CHOOSE ULTRAGUARD™?

### 0 accidents = operational savings

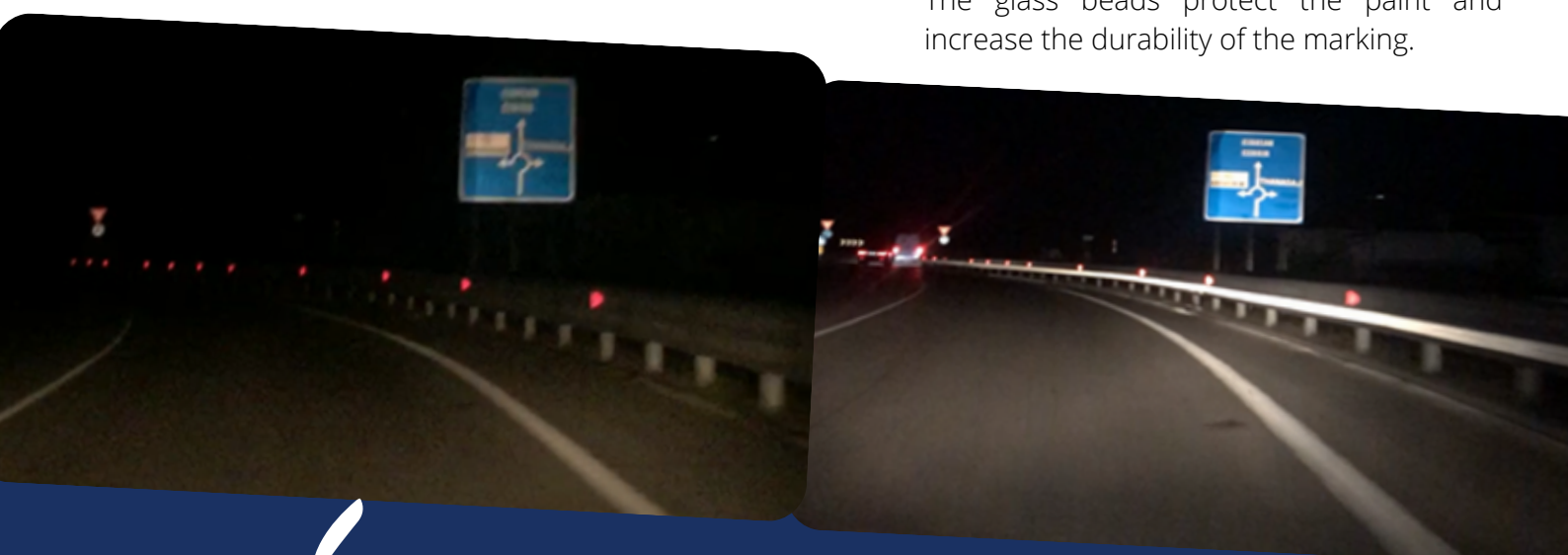
ULTRAGUARD™ makes barriers highly visible to road users in all weather conditions. With a reduction in accidents, there is no need to frequently replace road restraint systems. Interventions are limited and the cost is reduced.

### High visibility

It allows high visibility of curves, central islands, construction sites, tunnels, unlit roads and especially in adverse weather conditions.

### Durability

ULTRAGUARD™ is a low profile marking protected from the wear and tear experienced by road marking. The glass beads protect the paint and increase the durability of the marking.



Before/After ULTRAGUARD™ installation



# ULTRAGUARD™

## VERTICAL APPLICATION ON ALL TYPES OF SYSTEMS

**THE BEST ALTERNATIVE TO GUIDE ROAD USERS.**

ULTRAGUARD™ is a high visibility system applied in dry weather from 5° C. It allows a better definition of the 3D geometry of the road, day and night, particularly, in difficult weather conditions.

Its applications are possible on a variety of road restraint systems: steel crash barriers, concrete barriers, low walls, etc.

Don't hesitate to contact us for all your projects!

✓ **RANGE OF APPLICATIONS:**



Crash barriers



Bridge and viaduct devices



Mobile safety barriers



Concrete barriers

*\*Contact us for your projects*

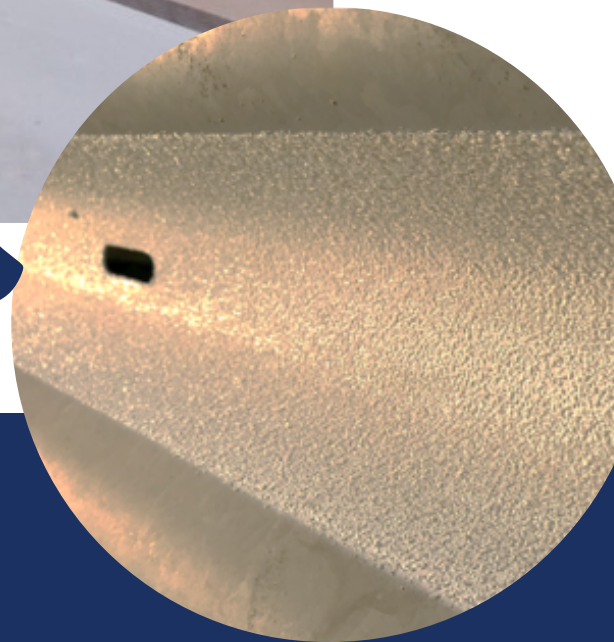


# ULTRAGUARD™

## A REAL INNOVATION FOR ROAD SAFETY

**THE BEST ALTERNATIVE TO GUIDE ROAD USERS.**

ULTRAGUARD™ allows road users to be guided in all weather conditions: fog, rain, snow. ULTRAGUARD™ maintains its effectiveness and durability over time.



# -25%

A study survey about vehicles crashes occurring at night, before and after Ultraguard™ installation showed a crash rate reduction per year above 25 %.

*\*Study carried out in the State of Missouri (USA) by C. Arruebarrena during 18 months between October 2014 and April 2016.*



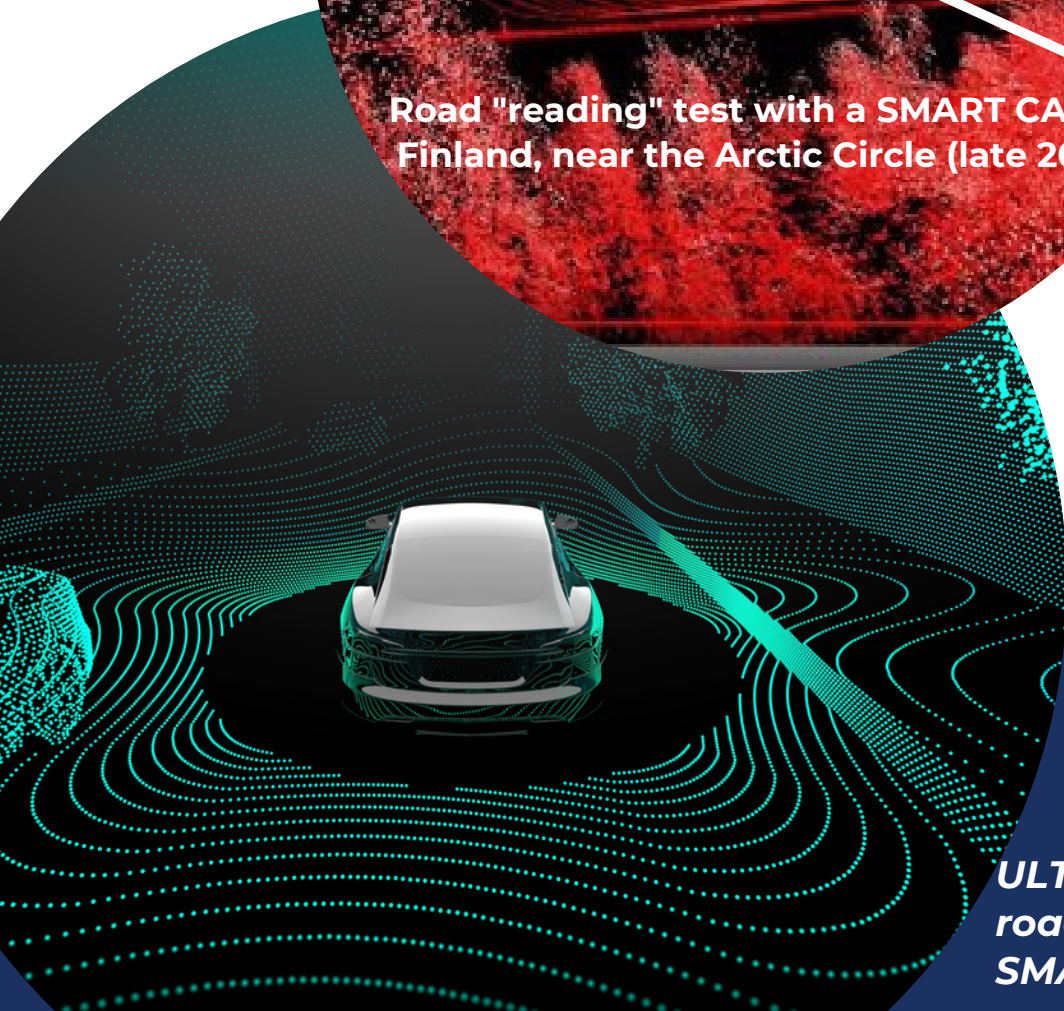
# ULTRAGUARD™

## A REAL INNOVATION FOR SMART AND AUTONOMOUS VEHICLES

**CONTINUOUS COMMUNICATION WITH ALL ADVANCED DRIVER-ASSISTANCE SYSTEMS (ADAS)**



Road "reading" test with a SMART CAR in Finland, near the Arctic Circle (late 2019)

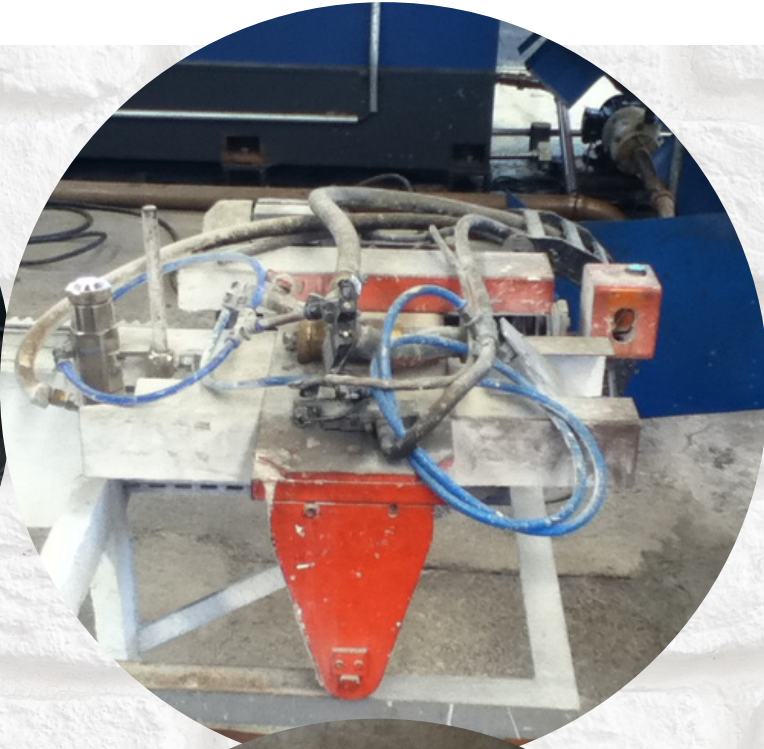


**ULTRAGUARD™ makes the roadside more legible for SMART CARS**



**ULTRAGUARD™**

**INDUSTRIAL APPLICATION IN YOUR FACTORY**



**Would you like to equip your restraint systems with ULTRAGUARD™ at the factory?  
It's possible!**

**Don't hesitate to contact us**



**solosteel** VEHICLE RESTRAINT SYSTEMS

# ULTRAGUARD™

SOLOSAR and POTTERS also offer a supply and installation service: your project is unique, let's talk!



**HEINTZMANN** | *Group*



*For us, your project is unique.*

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