



HEINTZMANN | Group

ULTRAGUARD™

Highly retroreflective coating 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 image showing a dark road at night with a yellow center line and a car's headlights illuminating the path ahead.

Darkness

A circular image showing a car driving on a snowy road with snow falling heavily from the sky.

Snow

A circular image showing a car driving through thick fog with its headlights on.

Fog

A circular image showing a car driving in the rain with water droplets on the windshield and blurred lights from other vehicles.

Rain

A circular image showing a car driving through a thick cloud of dust or sand, with the vehicle's silhouette visible against the hazy background.

Dust or Sand

There is a SOLUTION...

ULTRAGUARD™

BECAUSE...

Border traffic lanes configured with curbs, bollards or utility poles can create potential hazards if they are not well marked...

This risk can be increased during evening hours or by bad weather conditions...

Illumination of roadsides by overhead lighting is not always possible or economically feasible...

ULTRAGUARD™ is the most cost-effective solution.

The reflection of light from vehicle headlamps is free, easy and allows drivers to identify road hazards in time to safely avoid collisions...

Innovation



HIGHLY RETROREFLECTIVE COATING 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™

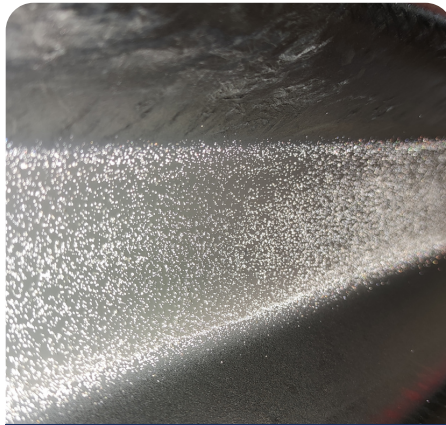
A HIGH-PERFORMANCE SYSTEM THAT IS EASY TO USE

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 and specially on inclined one
- 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

- Reflect light back to the light source with minimal scattering
- 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



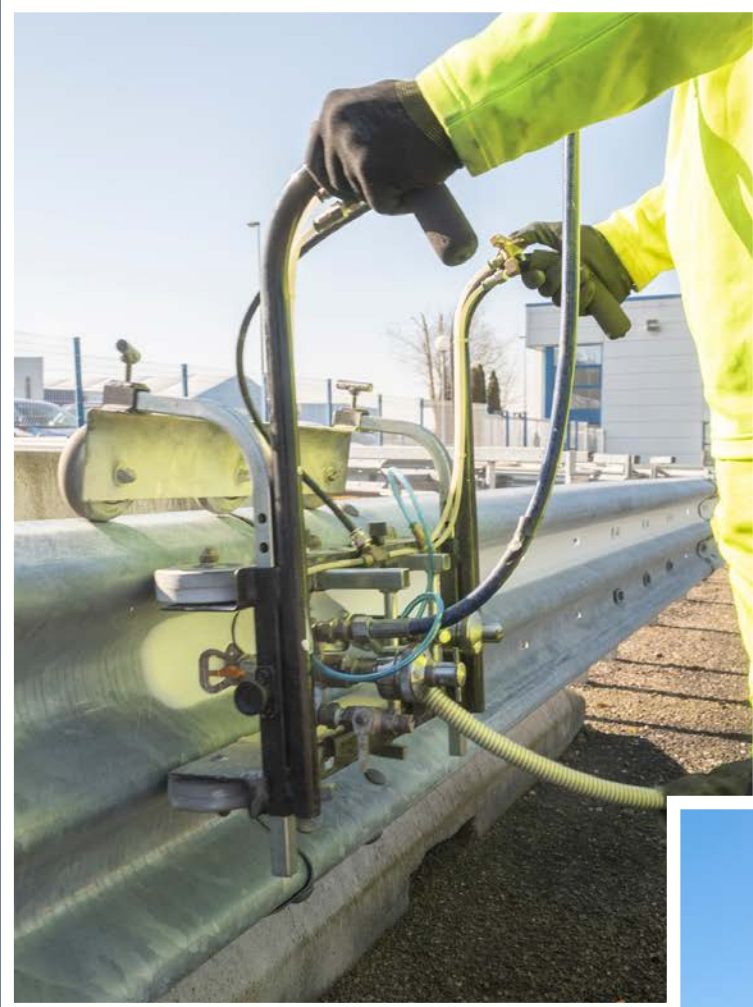
ULTRAGUARD™ in numbers

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/m².

ULTRAGUARD™

PRODUCT SPECIFICATIONS



SUPPLY

Permanent stock of ULTRAGUARD™ paint and microbeads at SOLOSAR (France)

DESIGN

Possibility of creating short, long or chevron stripes

RETROREFLECTION

Across a wide range of entrance and observation angles

Linear reflectorization of concrete barriers and metal guardrails

Provides daytime or nighttime contrast

COLORS

Available in white, yellow or blue

AVERAGE CONSUMPTION

PAINT & BEADS

For a wide strip of +/- 10 cm, 550 g. of paint and microbeads ULTRAGUARD™ are required in average

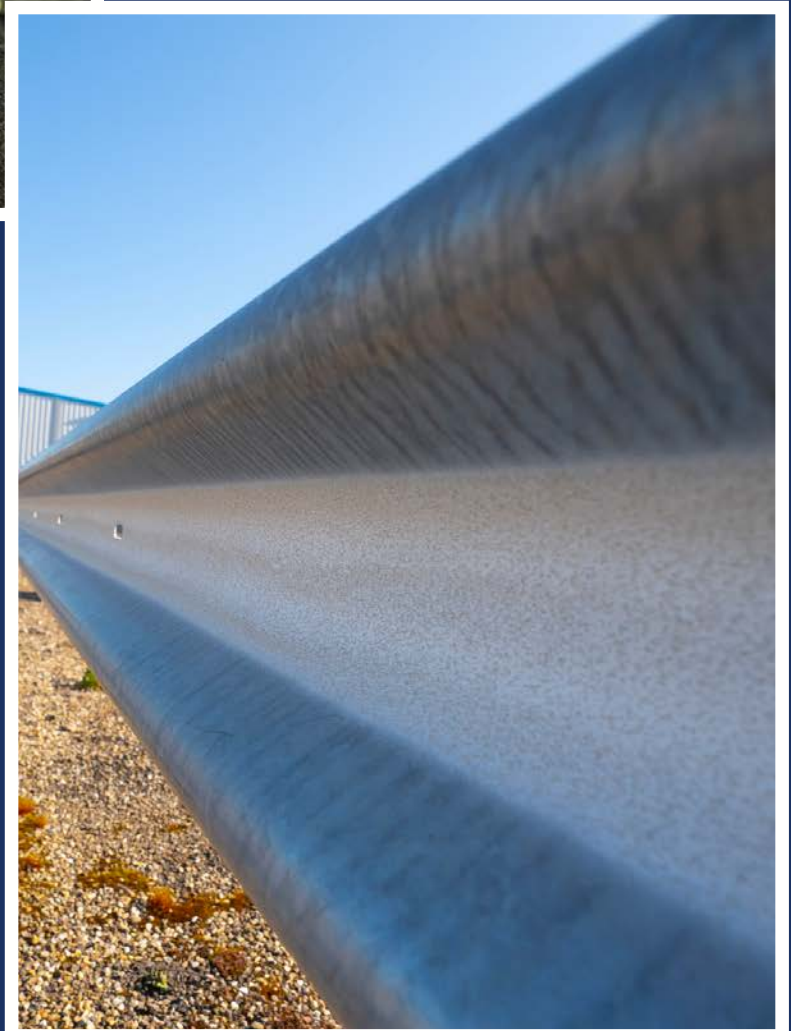
METEOROLOGICAL ASPECT

Can be applied between 7°-30°C and with a humidity level below 75%.

TECHNICAL ASPECT

Microbeads embedment in the coating between 50 and 60 % for total durability

Applied on a barrier or guardrail that runs parallel to traffic



ULTRAGUARD™

SOLOSAR FULL SERVICE

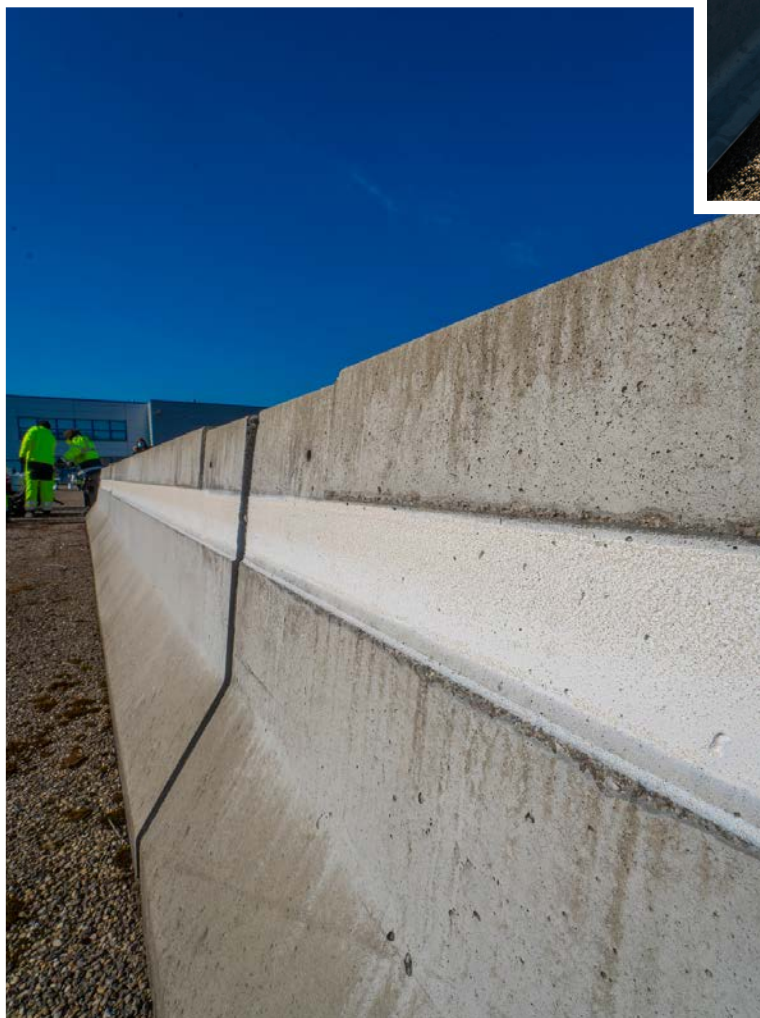
ON-SITE INSTALLATION

Handle in Europe by our referenced and trained operators

Handle by our SOLOSAR team in various countries

TRAINING

Theoretical and practical training of operators by SOLOSAR specialists



MAINTENANCE

Easy maintenance by applying ULTRAGUARD™ on keeping applied VRS with ULTRAGUARD™ on stock at the first time of application

Possible maintenance period defined by the contractor

TECHNICAL ASPECT

SOLOSAR helps you to define your needs: choice of switch tip, position of airless spray gun, paint viscosity, guardrails cleaning, control of the application trolley

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

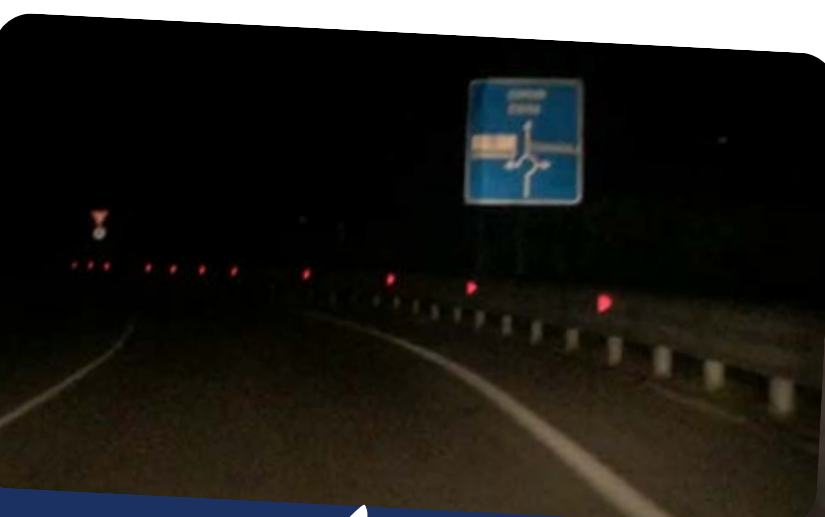
ULTRAGUARD™ makes barriers highly visible to road users in all weather conditions. With a reduction in accidents, there is no need to frequently replace road restraint systems. Interventions are limited and the cost is reduced.

High visibility

It allows high visibility of curves, central reservations, 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.

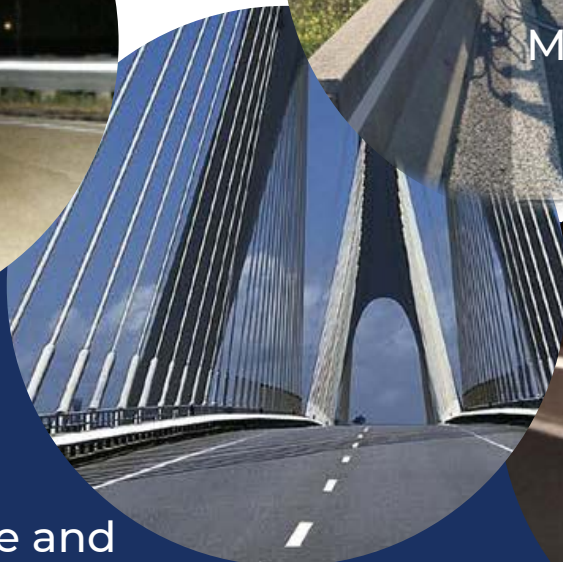
Its applications are possible on a variety of road restraint systems: steel crash barriers, concrete barriers, low walls, etc.

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

✓ RANGE OF APPLICATIONS:



Crash barriers



Bridge and viaduct devices



Mobile safety barriers



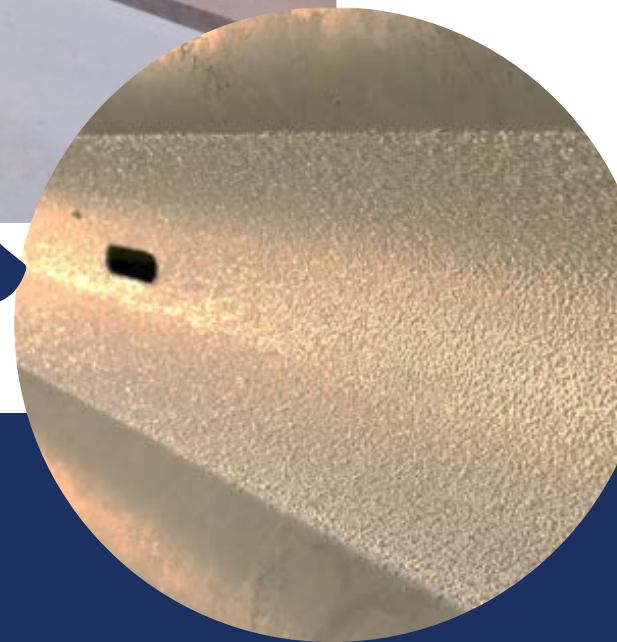
Concrete barriers

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%

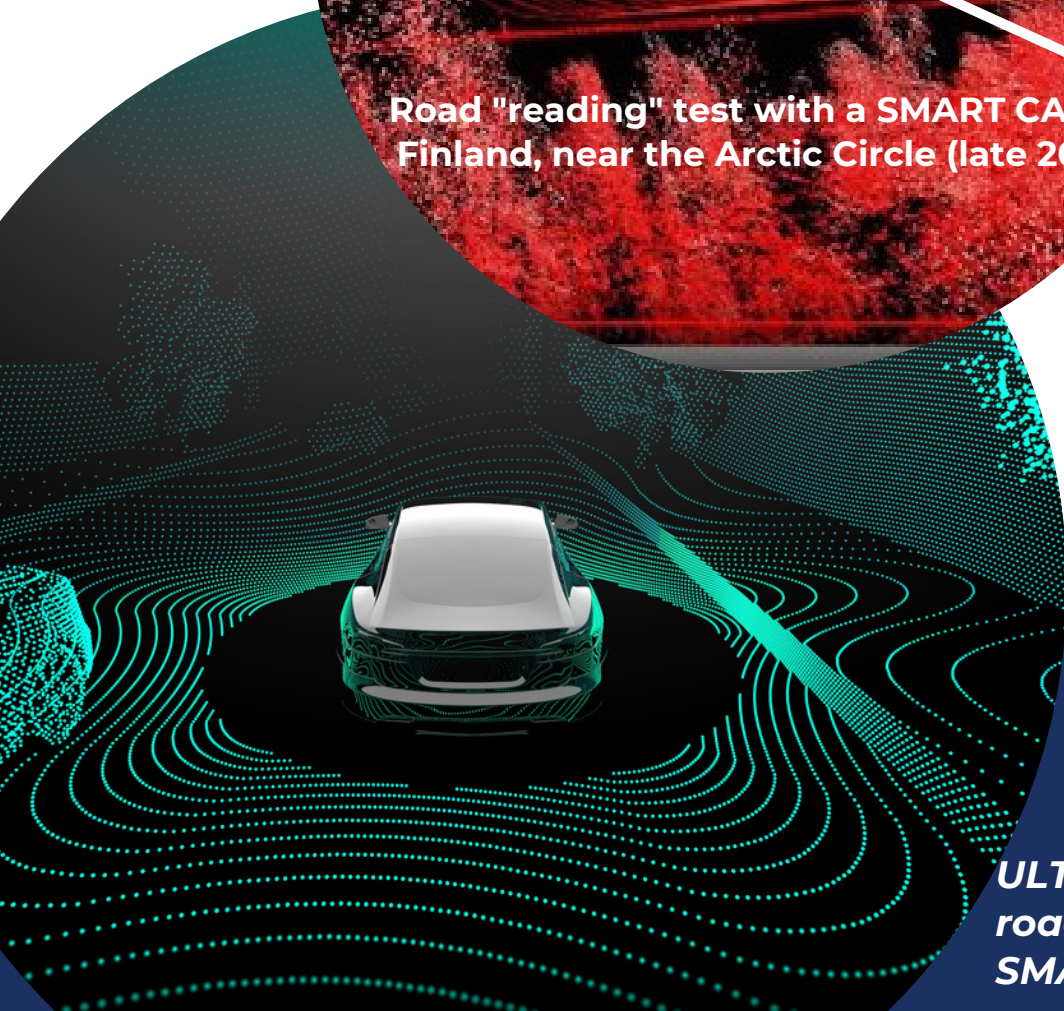
A study survey about vehicles crashes occurring at night, before and after Ultraguard™ installation showed a crash rate reduction per year above 25 %.

**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)



ULTRAGUARD™ makes the roadside more legible for SMART CAR

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™

ENHANCING NIGHTTIME VISIBILITY OF ALL TYPE OF ROADS...
ALL OVER THE WORLD !

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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