

RESOURCE GUIDE 12.7.V5



• RIGID / RECOVERABLE BOLLARDS & SIGNS

* Large standard range

* Custom work is welcomed

EMERGENCY VEHICLE ACCESS

X-LAST@BOLLARDS do not have to be removed to allow access for emergency vehicles. Fire trucks, ambulances and other emergency vehicles can drive straight over the X-LAST@BOLLARDS and there is no need to replace them after being driven over. They will revert to their original form and shape!



This feature reduces the respond time of the emergency teams to gain access to an emergency and eliminates all costs to replace or repair the bollards!

X-LAST@BOLLARDS, The Green Option



A life cycle analysis of X-LAST@BOLLARDS compared to conventional bollards by the European Union funded INASMET TECNALIA has shown that X-LAST@BOLLARDS have 50% less environmental impact than conventional bollards.

TECHNOLOGY



Sabacauchu invests in R&D to develop innovative solutions. Since 1979 we have solved problems relating to flexibility, strength, abrasion and longevity, developing products with superior tear, breakage, abrasion and impact resistance as well as resistance to ageing, high temperatures, hydrocarbons and other factors reducing the life cycle of products.

As a result of our R&D, we have developed an exclusive polymer X-LAST@ a polymer composite which includes reinforcing nano particles, giving X-LAST@BOLLARDS their unique properties.

ACCESSIBILITY

X-LAST@BOLLARDS comply with the accessibility requirements for public roads and places. The X-Last design and colour options increase their visibility. Braille and tactile signage can be incorporated.



SAFETY

X-LAST@BOLLARDS save lives. The Applied Research Center for Automotive Technology, IDIADA, has conducted impact tests with X-LAST@BOLLARDS and ridge metal bollards.



Tests were conducted using the HIC (Head Injury Criteria) to evaluate injuries to the head after impact at a speed of 40 km/h, which is the average speed in congested city centers.

The maximum international limit for the HIC value is 1000. Exceeding this value would cause irreversible head injuries. The HIC value obtained after impact with a metal bollard was 4600. This is nearly 5 times above the international limit.

The same test with X-LAST@BOLLARDS showed a result of 460! This is less than half the international limit and 10 times less than the result shown for metal bollards!

Certification

X-Last® bollards officially have the CE mark number: 0370-CPD-1395. X-Last® have been certified as the only bollards in the world that apply UNE-EN 12899 norm ("Fixed, vertical road traffic sign") in its Part 3 ("Delineator posts and auto-reflectors")



To be certified with CE mark for UNE-EN 12899 it has to be issued by an international authorised company. Only overcoming tests and a demanding audit, CE mark is awarded. Official number of certification has to appear in CE mark.

We are pleased to inform you that all over the world, Sabacauchu is the unique manufacturer company with the CE mark for fixed, vertical road signs in its part of delineator posts and auto reflectors with the following number of certificate: 0370-CPD-1395.



FINAL RESULT: After the roller has passed over twice.

www.X-last.com



RIGID RECOVERABLE BOLLARDS

After several years of research Sabacauchu & Moodie introduce a new concept in bollards

THE X-LAST@BOLLARD. *The Safest And Most Durable Bollard*

Made of a new polymer providing a safer than ridge metal or concrete bollards.

X-Last Bollard is strong enough to prevent vehicles entering prohibited areas but their flexibility makes them virtually unbreakable. Most importantly they recover to their original position and form after being knocked down!

X-Last Bollards –

- cannot be broken or dented, are not affected by rust and are UV-resistant.
- available in many attractive designs and can be customize with LookArt® options to suit your particular street-scape.
- guaranteed to last a lifetime.

X-LAST@BOLLARDS are safer than rigid metal bollards as ridge bollards "on impact", can cause serious harm to people and serious damage to vehicles.

Our vision is to make our streets safer with X-LAST@BOLLARDS while providing a modern, attractive design and reducing maintenance and replacement costs.



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• RIGID / RECOVERABLE BOLLARDS & SIGNS

- Design** We offer a wide range of designs and can customize the bollards with your city's coat of arms or logo. We can even produce your uniquely designed bollard.
- Fastenings** Removable form work base or directly bolted to the ground with fasteners or adhesive.
- Colours** All colours from the RAL spectrum. Reflective or metallic tapes are available.



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LUMART

• TRANSLUCENT RIGID / RECOVERABLE BOLLARDS

- * Large standard range
- * Custom work is welcomed



Bikeway - Divider in action



Bikeway - Illuminated



Bikeway - LumArt

LUMART

- Safe, illuminated, allways on guard
- "tested to recover in excess of 200 times"
- Light is concealed in the base

