



# FLEXIBLE BOLLARDS A-RESIST DT for bicycle lane







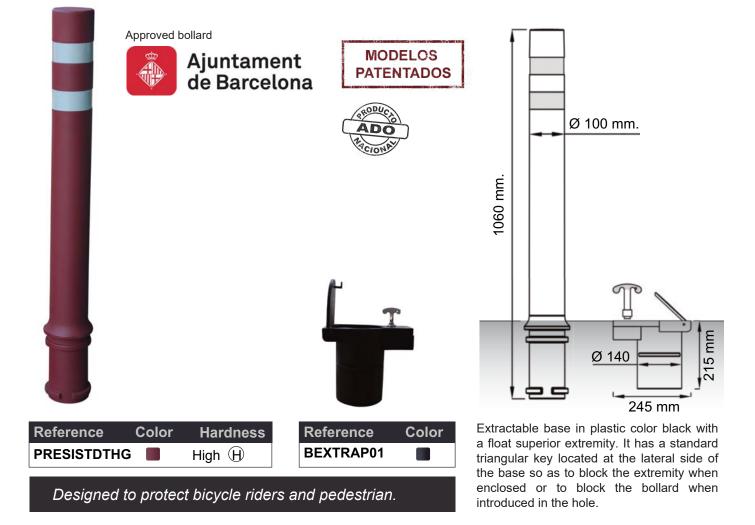
Flexible bollards designed and manufactured by ADO *Certified design* 

The flexible bollards A-Resist DT for bicycle lane (double milled and reflecting strips) are manufactured with a mix of materials, so that when suffering from an impact, the bollard comes back to its original shape and position. Becoming an indestructible bollard. Its stiffness depends on where it is installed, providing that vehicles do not pass in pedestrian zones or just simply flexing cause of the impact of a vehicule, alarming the driver that he is going off the side.



\* MODELS A-RESIST DT BICYCLE LANE

**MEASURES** 



#### FEATURES OF THE FLEXIBLE BOLLARDS HIGH RESISTANCE A-ECO A-RESIST D

- K Basically unbreakable
- 100% recyclable.
- They have no varnish. They do not oxidize. They do not need maintenance.
- Excellent flexibility despite its hardness.
- Market After impact they come back to its original shape and position.
- Excellent resistance and flexibility to impacts at both high and low temperatures.
- High resistance to oils, fats and numerous solvents..
- High resistance to abrasions.
- Touchable
- Aesthetically identical to the bollards made of metal.
- Double milled and reflecting stripes Level 2 increasing the visibility of the bollard.





 Hardness
 Recommended use

 High (H)
 Installation in pedestrian zones and in curves for a major protection of pedestrians and to avoid the establishment of vehicules. Urban centers.

The properties of this material allow that in case of impact, the bollard comes back to its original shape and position. They do not break, they do not get dented and they do not oxidize.

## ADVANTAGES COMPARING TO OTHER BOLLARDS

Comparing to bollards made of metal:	Comparing to bollards made of plastic:
- Less weight. - Less rumors generated Resistance to corrosion Zero maintenance.	<ul> <li>Zero fragility.</li> <li>Elastometric memory (compression set resistance).</li> <li>Resistance to abrasions.</li> </ul>
Comparing to bollards made of rubber:	Comparing to bollards of casting polyuretene:
<ul> <li>Resistance to abrasions.</li> <li>Resistance to cut and injuries.</li> <li>Resistance to push and dynamic loads.</li> <li>Resistance to the ozone.</li> <li>Major and variety of hardness (esc shore A and D).</li> </ul>	<ul> <li>Working at hight temperatures.</li> <li>No crystallizing (final break of the bollard).</li> <li>High resistance to wet environments (even hydrolisis).</li> <li>Numerous chemical agents.</li> </ul>







### **CERTIFICATES BOLLARDS A-RESIST DT**

#### 1. Certificate Appls IDIADA impact-proof bollard A-Resist top part (HIC).



Obtained results show a level of acceleration of the body which relates with a possibility of suffering from a damage of 12% gravity AIS3 for the model H.



#### 3. Certificate of overcoming a deflaction of 6000 cycles at 90°.



They were realized more than 6.000 cycles of flection without appearing any line in the surface of the bollard and coming back to its original position after suffering a strenght which had flexed it to the 90°.



#### 4. Certificate impact-proof from a vehicle at more than 80 km/h.



Impact from a vehice at more than 80 km/h against the A-Resist bollard without being demaged.

#### 5. Certificate of Resistance to fire Class E.



This clasification was realized according to what explained in the Norm UNE-EN 13501-1:2007+a1:2010: "Clasification of the behaviour facing fire for the products to be built of the elements for edification ".

#### 6. Certificate of compliance Reach.



CE

Flexible bollards manufactured with materials according to the strict normative REACH (U.E) at european nivel, they are free from heavy, polluting materials and damaging substances.

#### 7. Certificate CE.

A-Resist bollards meet the general Directive of products in the European Comunity according to the norm 2001/95/CE, R.D. 1803/2003.



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