

Reduces odors by up to 99%

The first lid with carbon antiodour filter!



coverUp

ambientalia

Ambientalia CoverUp, a patented system for eliminating foul odours from universal solid urban waste containers

Unpleasant odours have always been a problem hard to solve for people who live or work close to businesses activities, whether industrial or in the service sectors, which emit oppressive smells or fumes (from waste treatments, composting, water purification, fish markets etc.) or next to bins or groups of bins for urban waste.

No public administration is unaware of the negative effects and poor image deriving from underestimation of this aspect which lowers the quality of life.

Regardless of the highly important effort to collect and recycle waste by means of differentiated disposal, organic substances, especially in hot weather, always give off unpleasant smells. While some plant engineering intervention may be envisaged in industrial areas responsible for bad smells, the problem of garbage bins remains unresolved. Attempts have been made to reduce the effects by masking the odours or by inserting gaskets in the lids, but the result has been a momentary covering-up of the odours or, at times, even a worsening of the situation.

Ambientalia solved this problem by creating **COVER UP**.

COVER UP is a naturally ventilated lid which, thanks to a special chimney-effect opening, allows the odorigenous gases that accumulate inside the bin while the lid is closed to be adsorbed by the special **Adsorbeco** carbon filter in such a way that

unpleasant odours do not escape during periodic openings for depositing waste.

Tests carried out on normal rubbish bins where neither **COVER UP** nor the **Adsorbeco** filter were in use showed the following disadvantages, of considerable importance from a practical viewpoint:

a) On the internal surface of the lid, the molecules of odorigenous gases form at a rate consistent with the presence of a series of thin films of gas that adhere to the surface itself, consequently the overall speed with which they flow to the outside is not particularly high.





b) Disadvantage (a) during its slow flow, generates a high concentration of odorigenous gases in the space between the internal surface of the lid and the layer of waste contained in the bin. This space varies from a maximum of a few hundred litres (a half-empty bin) to a minimum of a few dozen litres (a full or almost full bin).

These values change in function of bin capacity but the proportions remain the same. Maximum concentration corresponds to maximum filling, when the odorigenous gases are produced in greater quantity.

- c) During periodic openings of the lid, circumstance (b) means that the whole volume of air in the empty space, with its high concentration of odorigenous gases ready to flow out, escapes almost instantly into the surrounding atmosphere with an unpleasant smell that causes discomfort to the user. In addition, even with the bin closed, the inevitable leaking of unpleasant odours to the exterior causes a generalised environmental discomfort due to unpleasant smells that attract insects, parasites and a variety of animals.
- d) SopAbove all, during the summer months, the abovementioned inconveniences are accompanied by an increase in the temperature inside the bins, which are made of materials that neither reflect nor insulate from heat. The high temperatures speed up the rate of decay of organic waste, with consequent worsening of the problem.

COVER UP is the best that the market offers today.

The new design of the bin or container lid has been developed to ensure constant natural ventilation inside each bin.

It is also fitted with a removable frame containing the filter mantle.



Fluid dynamics representation that shows the possible outcoming directions of the gases kept in the bin and their passage through the antiodour filter.



With this system, as soon as the gases are formed they flow, on contact with the filter, in a thin fluid layer, causing them to be completely adsorbed. They then immediately pass to the outside, almost entirely purified of their odorigenous components.

The concentration of odorigenous gases in the empty space of the container is in this way greatly reduced, both in the transitory phase (immediately after a partial filling of waste) and in the stationary phase (during possible long periods of time between one filling and the next).

Summary table of the results of the olfactometric tests carried out in September 2024 on a container equipped with a Cover Up lid with a carbon anti-odor filter and containing 2-week organic waste.

Test method: UNI EN 13725:2022

Test ref.	Description	Odor concentration	% reduction
		Z ite OU _E /m ³	
1	Test inside the container	5.300	
2	Test outside the container with the lid closed	66	99 %
3	Test outside the container with open lid	66	





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