

# Rat Cage, Polycarbonate (PC)

Item No. : BL-RC02 PC

Size: 1 Set



## Introduction

Biolabware Rat Cage RCC Series represents a high-quality solution for breeding in animal experimentation. This equipment features essential components, including a polycarbonate (PC) rat cage, a 304 stainless steel mesh/grid lid cover, and a drinking bottle. It is meticulously designed to fulfill the breeding requirements of rats in research settings, while also ensuring a hygienic and safe environment, thereby enhancing the efficiency and accuracy of experiments. Suitable for scientific research institutions, educational organizations, and pet breeders alike, the Rat Cage offers an optimal breeding solution.

## Rat Cage

- **Structure:** This cage has a regular cubic structure with smooth lines, rounded corners and no sharp corners, ensuring the safety of rats in the cage. The cage frame is made of polycarbonate (PC) material, with a stable overall structure and strong load-bearing capacity.
- **Material:** Made of high-grade polycarbonate (PC) material, the whole is transparent, non-toxic and harmless, high temperature resistant, easy to clean and reusable. This material not only ensures the durability of the cage, but also reduces the potential harm to rats.

## SS Wire Lid

- **Structure:** This mesh cover adopts a buckle combination design. There are buckles on both sides of the mesh cover, which can be directly buckled on the rat cage. It is easy to install and firmly fixed to effectively prevent rats from escaping.
- **Material:** Made of 304 stainless steel, it is corrosion-resistant and has high strength, ensuring the durability and safety of the cage.

## Drinking Bottle

- **Composition:** It is composed of a high-grade polycarbonate (PC) kettle body, rubber kettle stopper and 304 stainless steel spout. The overall design is simple and practical, easy to disassemble and clean.

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Biolabware reserves the right to make changes to product specifications for the purpose of improvement, and such changes may occur without prior notice.

**Specification**

Product	Qty	Depiction
BL-RC02 PC - Cage, Material PC ( Polycarbonate) - Box dimension: 545*395*200 mm - SS wire lid - 500ml PC drink bottle	1ea 1ea 2ea	

**Installation**

- Rat cage should be placed on a flat, stable surface or on a shelf with good ventilation.
- Provide a clean, suitable, and odor- and moisture-absorbing bedding so that mice can move around on bedding without interfering with their movement.
- Cage lid must be positioned atop the cage and locked properly, the hinges must be properly locked.
- Before placing the drinking bottle on the cage, ensure the bottle valve is tightly closed.

**Maintenance**

- In the sterilization of polycarbonate cages, it is crucial to note that the material can be compromised if alkaline cleaner residues or dried softened water remain on the surface. Therefore, it is essential to thoroughly rinse these surfaces with fresh, alkali-free water to ensure the complete removal of any residues. Utilizing an acid rinse aid may also help prevent damage to the material. It is important to avoid autoclaving soiled/dirty cages prior to cleaning, as this can further harm the polycarbonate.
- For polycarbonate drinking bottles, an acid cleaning process is typically employed, followed by a thorough rinse. Since these bottles are generally filled with water immediately after cleaning, the use of rinse aids is typically unnecessary.
- It is highly recommended to use softened water for washing. Plastic cages should be cleaned at a maximum temperature of 55°C. Rinsing and neutralizing cleaning agents can be effectively performed at approximately 80°C.
- Strong alkaline detergents are particularly effective in removing organic residues; however, direct contact with polycarbonate materials can lead to corrosion or hydrolysis. Therefore, it is essential to neutralize alkaline detergents after use.
- Acidic detergents may be employed for cleaning urine or when dealing with hard water. Generally, there is no requirement to neutralize these detergents. Avoid using alkaline detergents for hand washing, particularly when submerging cages in a pre-soak container.
- For the autoclave process, ensure that no detergent or acid rinse remains on the surfaces of the cages, as the autoclaving process can cause residues to sinter (solidify), potentially resulting in chemical damage and loss of transparency in the plastic. It is advisable to autoclave for the shortest time necessary, with a recommended minimum cycle duration of 20 minutes at 121°C. Avoid stacking more than ten cages on top of one another during the process. **Note:** repeated autoclaving can weaken PC material.

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- If you opt not to wash the cages prior to autoclaving, please be aware that food and bedding debris may release harmful substances when heated, which can compromise the integrity of the plastic. Should you need to autoclave the cages along with their bedding, it is essential to use high-quality bedding material.
- It is important not to heat cages or bottles that contain disinfectant. **Maximum Heat Levels:** At this temperature, a solid piece of plastic will deform under a pressure of 66 psi. Therefore, it is not advisable to expose animal cages to these temperatures. **Disinfectants:** Effective disinfectants include formalin, ethanol, formaldehyde, and benzalkonium chloride.
- Bases, esters, and oxidizing agents can cause immediate damage, resulting in severe crazing, cracking, loss of strength, discoloration, and deformation of polycarbonate (PC) material.

## References

<https://indogen.id/panduan-memilih-kandang-tikus-laboratorium-sesuai-standar/>

<https://indogen.id/panduan-memilih-kandang-tikus-dan-kandang-mencit-untuk-percobaan-di-laboratorium/>