

Criteria for allergy-friendly robot vacuum cleaners

BACKGROUND

Even when careful precautions are taken, such as airing only in the early morning hours, allergens such as pollen, mould spores or bacteria do not stop at the front door and find their way indoors.

Special robot vacuum cleaners can remove allergens from floors, surfaces and, to a certain extent, the air in the room, so that people with allergic rhinoconjunctivitis or allergic asthma suffer significantly less from the symptoms of the disease.

The European Centre for Allergy Research Foundation (ECARF) certifies allergy friendly robot vacuum cleaners if they achieve a measurable reduction in indoor allergen exposure with everyday use and safely contain the allergens they collect.

The ECARF Seal of Quality is awarded if the following criteria are met. The criteria reflect the principle that lower allergen exposure is generally beneficial.

1. CRITERIA

1.1. Required measurements and product properties

- Dust emission of the robot vacuum cleaner partly according to DIN EN 60312 with mineral dust type 1
- Limit value:
 - Dust emission < 0.02% for particle sizes:
 - 0.3 µm, 0.5 µm, 0.7 µm, 1 µm, 1.5 µm, 2 µm, 2.5 µm, 3 µm, 3.5 µm, 4 µm, 5 µm, 6 µm, 7 µm, 8 µm, 9 µm, 10 µm
 - Dust emission class A is permissible.
- A robot vacuum cleaner for allergy sufferers must have the following properties:
 - HEPA filter
 - Timer function: A timer function helps because it allows the robot vacuum cleaner to perform its work in the absence of the allergy sufferer. This way, the dust particles have settled by the time he returns home.
 - Extraction station: An extraction station reduces the number of times the dust tank needs to be emptied. This reduces the allergy sufferer's exposure to this dust-intensive activity.
 - Optional: Wipe function: An additional wipe function is helpful for hard floors because no dust is stirred up during the simultaneous vacuuming and wiping, but is bound by moisture.
- Instructions on operation and filter replacement in the operating manual
- Information on possible internal contamination of the device if the instructions in the operating manual are not followed.

- For robot vacuum cleaners with automatic extraction station: Replacement of the dust tank and regular emptying as well as a change of water in the water tank (2.5-3 litres) every 30-60 days.
- The operating instructions indicate, for example, that manual operation of the emptying station requires the opening of the container to be covered with a dustproof plastic bag during emptying. A careful removal of the dust container, tight sealing of the plastic bag and subsequent disposal ideally outdoors to inhale as little dust as possible.

2. QUALITY CONTROL AND COMPLAINT MANAGEMENT

The manufacturer has established a functional system of quality control that effectively documents, processes and follows up complaints.

The following is also ensured:

- The manufacturer's contact details, such as the address, telephone number and/or email address, are clearly visible on the product packaging;
- Consumer complaints are handled and followed up in an appropriate manner by qualified and experienced personnel of the manufacturer;
- The assessment of consumer complaints and, if applicable, any inferred areas of improvement are reapplied to product quality and safety. The manufacturer agrees to make this data available to ECARF on an ongoing basis.