

Criteria for the recommendation of vacuum cleaners

DSV5





1. Background

There are both aesthetic and hygienic reasons to remove dust indoors. Dust, dirt and particles are constantly supplied to the indoor environment from many different sources and activities. Particles, sometimes containing allergen, become easily airborne and the more that accumulate, the greater the risk that they cause irritation and can cause harmful effects on our airways. The particle-perfect vacuum cleaner effectively removes dust from the substrate without returning any dust to the room, nor does it swirl particles in the air during vacuum cleaning. Vacuum cleaners equipped with filters can purify the exhaust air so that it contains less number of particles than the ambient air. This minimizes the risk that the actual vacuuming will affect the health of people with sensitive airways, including asthmatics.

The less dust that is left on the floor surface, the less dust can swirl up as we move. This places demands on high dust absorption capacity. Once the dust has collected, we do not want it to spread again. In addition to a good filter system in a dense vacuum cleaner, it is therefore important that dust does not leak when changing bag and filter.

Dust collection and filtration together constitute the efficiency of the vacuum cleaner. Parameters that affect efficiency are the following:

- Dust Absorption
- The vacuum cleaner systems air tightness
- Degree of separation (filtration)
- Changing / cleaning bags / filters

A few additional parameters that may influence the consumer's choices have been taken into account before making a recommendation. These are:

- Nickel release from contact surfaces
- Manageability
- Consumer Communications
- Ergonomics



2. Criteria

In order to make it easier for a buyer to choose the vacuum cleaner that has the greatest benefit, the Asthma and Allergy Association's review board, in collaboration with expert staff, has developed criteria according to the following main points:

- Dust pick-up
- Filtration efficiency
- Handling.

2.1 General

The vacuum cleaner must comply with all regulatory requirements and be approved from an electrical safety point of view by an accredited authority. All existing approvals and test protocols must be attached to the application.

The vacuum cleaner and its contact surfaces must not contain or emit any harmful substances that can cause asthma or allergies.

Testing protocols from SLG Prüf- und Zertifierungs GmbH in Germany (SLG) regarding dust pick-up must be attached to the application. Test protocols from SLG or the Research Institutes of Sweden (RISE) regarding filter efficiency must be attached to the application.

2.2 Dust pick-up

Dust pick-up shall be measured according to test method EN 60312-1. For recommendation, the following is required:

- $dpuc \geq 0,83$ from carpets (E-label, Class C) and
- $dpuc \geq 1,08$ from hard floors with crevices (E-label, Class B).



2.3 Power consumption

The requirement for the electrical power consumption must comply with current EU regulations.

2.4 Filtration efficiency

Filtration efficiency must be measured either according to test method EN 60312-1 or test method SP 2554. The fraction separation rate for 0.3 - 0.5 μm should be $\geq 99.98\%$ of the number of particles. The entire test protocol (with all measurements) must be attached to the application documents.

2.5 Handling

No contact surface may contain substances that may cause allergies. All actuators and other surfaces with which the consumer comes into contact shall be tested for nickel. For recommendation, nickel release from surfaces of product with which the consumer comes into contact must be no more than 0.5 micrograms per cm^2 per week, in accordance with the current EU regulation (REACH, EC Regulation 1907/2006).

Replacement or emptying of dust containers and filters is considered a risk of exposure.

Cleanable filters or the like are therefore not recommended.

Dust bags must be provided with a closure. An assessment of simplicity and safety from a dust standpoint when replacing dust containers and filters is included in the review preceding a recommendation.



3. Recommendation

A recommendation requires that:

- the vacuum cleaner meets the above requirements and criteria
- the vacuum cleaner has been assessed by the Asthma and Allergy Association's Review Board

The Asthma and Allergy Association's logotype for recommendation may only be used after an agreement has been drawn up between the parties and in accordance with that agreement. In all marketing, advertising, PR and the like where the marking is mentioned and / or the logo is used, it must be clearly stated what its meaning is.

4. How is an application made?

Information and application forms are obtained digitally via contact with the officer

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The criteria DSV5 was adopted by the review board 2018 11 29