

Criteria for allergy-friendly tumble dryers

BACKGROUND

People with allergies have special requirements when it comes to tumble dryers. They need to look at the ingredients in detergents as well as make sure that there are no residues of mites, pollen or animal hair in the clothes after washing. Furthermore, the clothes soften in the dryer, which helps to protect sensitive skin.

Both indoors and outdoors, allergens such as pollen, mites or animal hair can settle on clothing and cause discomfort to allergy sufferers. Apart from mite allergens, it is cat allergens that are the most prevalent allergens in the home.

The clothes are not actually soiled, but contaminated by allergens. Textiles cannot always be washed; frequent washing causes them to lose their shape and colour. A good alternative is to "air out" or remove allergens from a garment using a tumble dryer. Drying clothes for at least 20 minutes in a tumble dryer at 60 to 80 degrees Celsius can eliminate pollen, mite and cat allergens in textiles.

An electric tumble dryer (heat pump dryer) is able to clean clothes through air and heat in the drum without them needing to be washed first. Special hygiene programmes for allergy sufferers ensure that allergens are removed or neutralised in the tumble dryer. Additional protection can be provided by a special pollen filter (hygiene filter, hygiene air filter for tumble dryers), which is used instead of a conventional lint filter and has the effect of binding pollen allergens in the filter.

1. CRITERIA

1.1. Required product properties

The European Centre for Allergy Research Foundation (ECARF) awards the ECARF Seal of Quality to tumble dryers (heat pump dryers)

- that have a special hygiene programme and/or steam programme for allergy sufferers, which additionally heats the air in the drum to up to 70 degrees Celsius for at least 20 minutes at the end of the drying cycle (the general running time including the heating phase may be longer). The steam technology programme maintains a temperature of 60 degrees Celsius in the drum for at least 15 minutes during which steam is added. The mixture of water and heat produces a highly disinfecting steam that eradicates > 99% of allergens.
- if the manufacturer provides documentary evidence of reduced exposure after the drying cycle to house dust mite allergens, pollen and animal hair allergens and reduction of live dust mites and moulds.
- (optional) if a pollen filter (hygiene filter, hygiene air filter for tumble dryers) is used instead of a conventional lint filter in addition to the hygiene programme. It is only intended for the removal of pollen, but not for the removal of other allergens, such as animal hair or house dust mite allergens.
- The optional pollen filter is used instead of the lint filter. It must be ensured that the use of the pollen filter removes pollen under the conditions specified below:

- Filter efficiency: > 99% (DIN EN 779) *Poa pratensis* [blue grass], *Betula pendula* [silver birch], *Ambrosia artemisiifolia* [Ambrosia].
- Filter efficiency: >25% DEHS (DIN EN 1822, 20 cm/s flow velocity)
- Airflow in dryer: >75 m³/h in combination with the pollen filter
- Which of the various dryer programmes can be used to remove allergens (pollen, house dust, animal hair) must at least be clear from the operating instructions.
- The water tank must be emptied regularly according to the manufacturer's instructions.
- All product properties are documented by the manufacturer and verified by ECARF.

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.