

Criteria for Allergy-Friendly Pollen Screens

1. Background

There is pollen in the air nearly all year round. The allergens in the pollen can cause severe symptoms in people with allergies both outdoors and indoors.

Pollen screens installed inside window frames block incoming pollen, keeping it from entering indoors from the outside and allowing allergy sufferers to open their windows, even during the summer months when the pollen count is especially high.

The European Centre for Allergy Research Foundation (ECARF) certifies pollen screens that meet specific standards of effectiveness and can therefore improve the quality of life for people with pollen allergies. The criteria are based on the principle that the greatest health benefits can be achieved by reducing allergen exposure to a minimum.

2. Criteria

■ Retention capacity

- Separation efficiency for birch pollen: >80% at single air velocity, >65% at dual air velocity.
- Separation efficiency for grass pollen: >80% at single air velocity, >65% at dual air velocity.
- Separation efficiency for ragweed pollen: >70% at single air velocity, >55% dual air velocity.

■ Warnings

The following warnings must be included on or inside the packaging:

- 'Pollen screens are a secondary prevention measure and are not a substitute for medical treatment.'
- 'ECARF-certified pollen screens prevent pollen from entering indoors, thereby reducing allergy symptoms. However, they do not guarantee absolute protection against pollen.'

Appendix: Measurement

The tests are conducted in a pollen chamber with two rooms (Room A and Room B). The pollen screen, measuring 50x50cm, is installed between the two rooms for the test.

Room A is equipped with a fan and a pollen inlet. The measurement for the particle quantification is taken in Room B.

During the test, three pollen species with different pollen grain sizes (e.g. birch, ragweed, timothy) are released once simultaneously in predetermined amounts in Room A and kept airborne by means of a directed turbulent airflow. The test is conducted in two stages, first with single air velocity and then with dual air velocity, with the air current at an uneven inflow angle of 90° to the pollen screen. The temperature, humidity and air pressure in the test chamber are analogous to daily living conditions and kept constant throughout the test.

The separation efficiency of the pollen screen can be calculated by measuring the difference in the amount of pollen that passes through with and without the installed pollen screen.