

Testing Results

How Allergen Barrier Encasements Work

Dust mites cause allergic reactions in humans when we inhale the dust mite allergen, or more specifically the protein found in their feces and body remnants which can be as small as 10 micrometers (or microns) in size. The dust mites themselves are typically around 250-300 micrometers in length.

Dust mites living within the mattress and pillow are trapped when the encasement is applied. Because they are blocked from their food source (our dead skin cells), they eventually die. The dust mite allergens are completely blocked by the encasement so that you and your family do not breathe them in and develop an allergic reaction. Routine cleaning and maintenance of the encasement will ensure the removal of any additional allergens landing on the outside of the protector while preventing the introduction of new dust mite harborage within the interior of the mattress or pillow.

IBT Reference Labs performs rigorous testing of allergen barrier fabrics. The following chart shows the airflow, mean pore size, and amount of mite allergen and cat allergen (used because it is ten times smaller than mite allergen) that passes through our Sofcover[®] fabric versus the lab-control poly-cotton fabric.

	Poly-Cotton Control Fabric*	Stretch Knit Box Spring Encasement	Mattress Safe[®] Superior Encasement Top / Bottom	Mattress Safe[®] Ultimate Encasement
Barrier to Mite Allergen (nanograms transferred)	133	Less than 1.3**	<1.3** / <1.3**	Less than 1.3**
Barrier to Cat Allergen (nanograms transferred)	599	3.5*	<0.31 / 3.5*	<0.31
Airflow (litres per minute)	21.4	23.9	22.0 / 23.9	22.0
Mean Pore Size (microns)	4.9	4.3	<0.01 / 4.3	<0.01

*Data taken from Vaughn JW, McLaughlin TE, Perzonowski MS, Platts-Mills TAE. Evaluation of materials used for bedding encasement: effect of pore size in blocking cat and dust mite allergen. *J Allergy Clin Immunol* 1999; 103:227-31

**Amount of allergen that passed through the fabric is considered to be too small to measure.



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