

HOW TO REDUCE BUILDING LEAKAGE BY IN JUST 4 HOURS

80%

BACKGROUND

Reducing envelope air leakage could significantly reduce energy consumption, and improve indoor air quality.

EXISTING METHODS

Existing methods of sealing are labor and time intensive, and are not always effective.

40%
HEATING ENERGY SAVINGS

Modeled heating savings of 40% in commercial building, Fairfield CA

73%
TIGHTER THAN BASELINE HOMES

HOW IT WORKS

STEP 1: PREPARATION



Assemble and install a "Blower Door" to maintain positive pressure in the space.

STEP 2: INJECTION



The sealing is performed by fogging a space with aerosolized sealant particles. The particles are carried to the leaks by the escaping air flow.

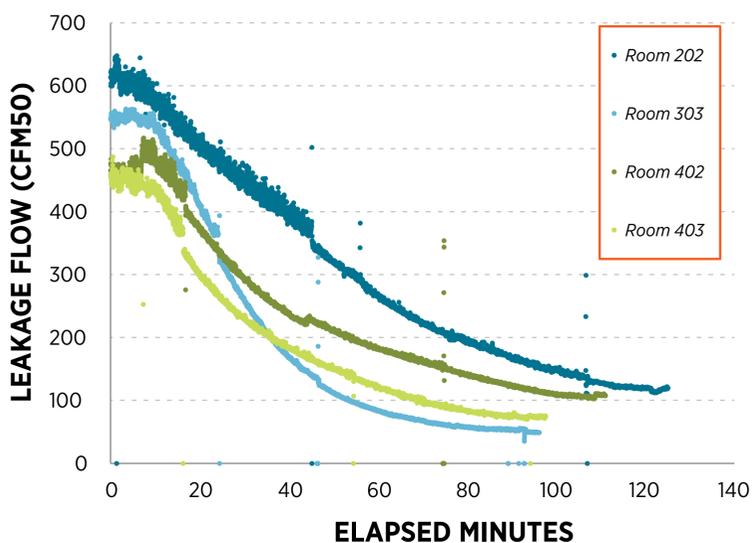
STEP 3: MONITOR & EXHAUST



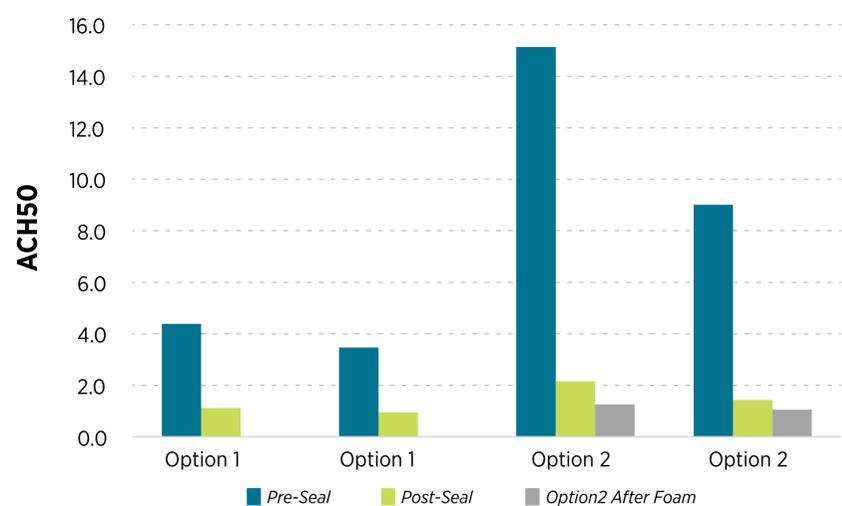
The process finds and seals leaks missed or inaccessible by manual trial-and-error methods. Results are tracked and displayed in real-time.

RESULTS

Leakage sealed in 4 different, 500 ft² apartments in New York



Leakage before sealing, after sealing and after sealing plus cell-foam application in a 2,000 ft² home in Lodi, CA



Option 1: AeroBarrier applied after foam
Option 2: AeroBarrier applied before foam



DURABILITY

Accelerated durability tests revealed insignificant change in leakage after 1000 cycles at 800 pascal



ESTIMATED COST

\$0.50/ft² - \$1.50/ft²

AEROBARRIER
Breakthrough Envelope Sealing Technology

AEROBARRIER

The technology is now available commercially, and has been used in 100s of demonstrations

PATH FORWARD

Future work includes studying the overall cost effectiveness, feasibility of retrofits, and installation in commercial buildings