

All Indoor airPLUS qualified homes also meet strict guidelines for energy efficiency set by ENERGY STAR, the nationally-recognized label for energy efficiency.



Why does indoor air quality matter?

People are increasingly concerned about mold, radon, carbon monoxide, and toxic chemicals commonly found in homes. In fact, U.S. Environmental Protection Agency (EPA) studies show that levels of air pollution inside the home are often two to five times higher than outdoor levels.

Poor indoor air quality is associated with a host of health problems, including:

- Eye irritation
- Allergies
- Headaches
- Respiratory problems

In addition, indoor air quality is having a sizable financial impact on the home building industry. Litigation associated with mold and other indoor air quality related concerns and the rising cost of liability coverage have cost builders across the country billions of dollars.

Why design and build with Indoor airPLUS?



Builders can employ a variety of construction practices and technologies to decrease the risk of poor indoor air quality in their new homes. According to surveys, consumers are willing to pay up to \$5,000 more for these improvements.

EPA created Indoor airPLUS to help builders meet the growing consumer preference for homes with improved indoor air quality. By building to EPA's specifications and meeting third-party verification requirements, builders can distinguish themselves as offering homes designed to deliver improved indoor air quality.*

*Indoor airPLUS construction specifications are designed to help improve indoor air quality (IAQ) in new homes compared with homes built to minimum code. However, these features alone cannot prevent all IAQ problems. Occupant behavior is also important for IAQ. For example, products used in the home after occupancy and smoking inside may both negatively impact the home's IAQ and the performance of the specified Indoor airPLUS features.



How do homes earn the Indoor airPLUS label?

Start with ENERGY STAR

A home must first be designed and built to earn the ENERGY STAR—the government-backed label for energy efficiency. The result is a home that is significantly more energy efficient than a home built to minimum code, helping reduce greenhouse gas emissions.

Add indoor air improvements

Home design and construction features are included in the Indoor airPLUS label to help protect qualified homes from moisture and mold, pests, combustion gases, chemicals, and other airborne pollutants. These features are detailed in an additional checklist that the builder utilizes in the design and construction of the home.

Complete the package with independent testing and verification

The home's energy performance and key features of the Indoor airPLUS label are inspected by a third-party Home Energy Rater to ensure compliance with EPA's rigorous guidelines and specifications.

What distinguishes new homes with the Indoor airPLUS label?

With Indoor airPLUS, EPA offers a way for builders to distinguish themselves by building homes with professional best practices, including the following design and construction features:

Moisture Control: Build in added protection from mold and other moisture problems with water managed roofs, walls, and foundations. Features include continuous drainage planes, proper flashing and air sealing, damp-proof foundation walls, capillary breaks, drain tile, and proper grading.

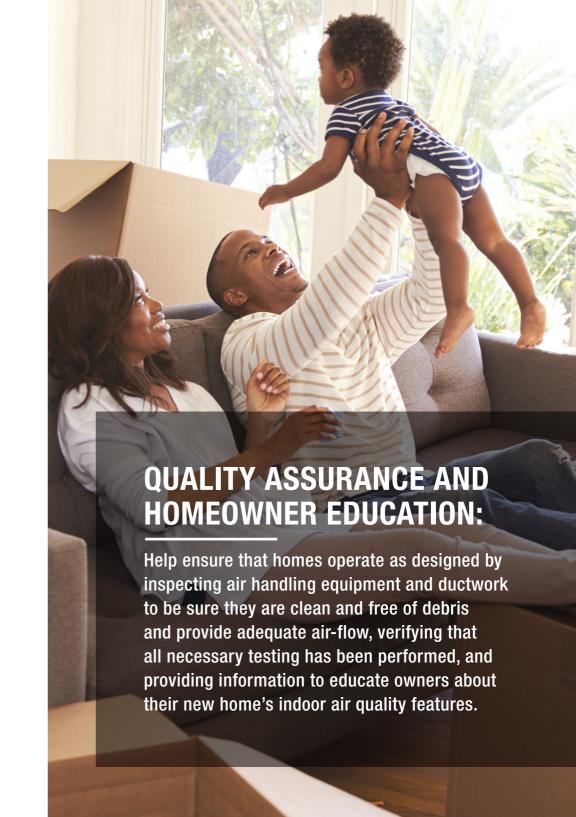
Radon Control: Provide radon-resistant construction in high radon potential areas, including gravel and plastic sheeting below slabs, fully sealed and caulked foundation penetrations, plastic vent pipe running from below slab through the roof, and an attic receptacle for easily adding an electric powered fan to the vent pipe if needed.

Pest Management: Provide a first-line defense against pest problems by fully sealing, caulking, or screening likely pest entry points. When these physical barriers are combined with proper pest management techniques, pesticide use may be reduced.

Heating, Ventilating, and Air-Conditioning (HVAC): Improve indoor air quality with best practice design and installation of ducts and equipment to minimize condensation problems, whole-house and spot ventilation to help dilute and exhaust indoor pollutants, and improved air filtration to remove airborne particulates.

Combustion Venting: Protect residents from potential exposure to combustion gases by installing direct-vented or power-vented gas- and oil-fired equipment, properly vented fireplaces, garages fully sealed from living spaces, and carbon monoxide alarms in each sleeping area.

Building Materials: Reduce sources of pollutants by selecting and installing materials to minimize risk of moisture damage, specifying materials with reduced chemical content, and ventilating homes prior to occupancy.



Are you ready to step up to Indoor airPLUS?

1. Work with a Home Energy Rater

Work with a local Home Energy Rater—the same verifiers who help you with ENERGY STAR inspections—to ensure that your homes are designed and built to meet the Indoor airPLUS Construction Specifications.

2. Partner with EPA

Sign up at www.epa.gov/indoorairplus. Just complete the Indoor airPLUS partnership agreement, a free, simple online application that explains requirements for use of the Indoor airPLUS name and marks.

3. Verify and Label Homes

Have your homes inspected by your Home Energy Rater. Indoor airPLUS inspections can be completed along with ENERGY STAR inspections and testing. Sign the verification checklist and affix the Indoor airPLUS label on each qualifying home, right next to the ENERGY STAR label.

4. Consider the 100% Indoor airPLUS Commitment

Earn this designation by committing to build *all* of your new homes to earn the Indoor airPLUS label. Elect this commitment annually in your My ENERGY STAR Account (www.energystar.gov/mesa), and use the 100% Commitment Mark to promote your Indoor airPLUS partnership and commitment to safer, healthier homes for your buyers.

5. Promote your Competitive Advantage

Use Indoor airPLUS promotional materials and resources to gain market advantage for your qualified home, such as the Indoor airPLUS Sales Training Kit, a resource that provides tools necessary to effectively communicate the value of improved indoor air quality.

More about Indoor airPLUS at: www.epa.gov/indoorairplus

EPA's new home labels

EPA's suite of new home programs give homebuilders an opportunity to deliver unparalleled quality and performance to their customers. With the ENERGY STAR, WaterSense, and Indoor airPLUS labels, builders can offer superior energy efficiency, water efficiency, and indoor air quality with marks that their homebuyers can trust.

What is ENERGY STAR?

ENERGY STAR is the government-backed symbol for energy efficiency. The mark identifies new homes, buildings, and more than 70 types of products that are energy efficient and offer the features, quality, and performance today's consumers expect. Homes that earn the ENERGY STAR are 15-30% more energy efficient than typical new homes, and even more efficient when compared to existing homes sold on the market today. By purchasing an ENERGY STAR certified home, your customers can have all the features they desire in their new homes, plus better performance and lower utility bills — all while helping reduce greenhouse gas emissions.

What is WaterSense?

WaterSense is both a label for water-efficient products and a resource for helping you save water, making it easy to find products, homes, and programs that meet EPA's criteria for efficiency and performance. WaterSense labeled products are certified to use 20 percent less water, save energy, and perform as well as or better than regular models.

WaterSense labeled homes allow families to enjoy all the comforts of home while using less water and energy and spending less money on utility bills. In fact, compared to a typical home, a WaterSense labeled home can save a family of four 50,000 gallons of water a year or more! That's enough to wash 2,000 loads of laundry and could amount to utility bill savings of up to \$600 each year.









www.epa.gov/indoorairplus





Office of Air and Radiation (6609J) EPA 402/k-09/003 | August 2017