



CHANGE FOR THE  
BETTER WITH  
ENERGY STAR

U.S. Environmental  
Protection Agency

# New Homes with the ENERGY STAR® Indoor Air Package



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## WHAT IS ENERGY STAR?

ENERGY STAR is the government-backed symbol for energy efficiency, helping businesses and individuals protect the environment through superior energy efficiency. It identifies new homes, buildings, and more than 40 types of products that are energy efficient and offer the features, quality, and performance today's consumers expect. Products earning the ENERGY STAR label include appliances, lighting, vent fans, home office equipment, consumer electronics, and heating and cooling equipment.

The ENERGY STAR label on a new home means that it is independently verified to be at least 15% more efficient than homes built to the 2003 International Energy Conservation Code. By purchasing an ENERGY STAR qualified home, you can have all the features you desire in your new home, plus lower utility bills. And you will help prevent greenhouse gas emissions. Ask your builder for a brochure about the features built into every ENERGY STAR qualified home.



## 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. And poor indoor air quality is associated with a host of health problems, including eye irritation, headaches, allergies, and respiratory problems such as asthma.

## HOW CAN BUILDING PRACTICES HELP IMPROVE INDOOR AIR QUALITY?

Builders can employ a variety of construction practices and technologies to decrease the risk of poor indoor air quality, including careful selection and installation of moisture control systems, heating, cooling, and ventilation (HVAC) equipment, combustion venting systems, and building materials. But it's not easy for homebuyers to keep track of all the preferred construction details that lead to improved indoor air quality and energy efficiency. That's why EPA created the ENERGY STAR Indoor Air Package.

Homes that earn the ENERGY STAR Indoor Air Package label are designed to have lower utility costs, greater comfort, better durability, and reduced risk of indoor air problems.\*



Homes with the ENERGY STAR Indoor Air Package are at least 15% more energy efficient than homes built to the 2003 International Energy Conservation Code (IECC) and are designed to have improved indoor air quality compared to code-built homes.

## HOW DO HOMES EARN THE LABEL FOR THE ENERGY STAR INDOOR AIR PACKAGE?

### START WITH ENERGY STAR

A home must first be designed and built to earn the ENERGY STAR—the government-backed symbol for energy efficiency. The result is a home that is significantly more energy efficient than a code-built home.

### ADD INDOOR AIR IMPROVEMENTS

More than 70 additional home design and construction features are included in the Indoor Air Package to help protect qualified homes from moisture and mold, pests, combustion gases, and other airborne pollutants.

### COMPLETE THE PACKAGE WITH INDEPENDENT TESTING AND VERIFICATION

The home's energy performance and many key features of the Indoor Air Package are inspected by an independent third-party to ensure that the builder has properly followed EPA's rigorous guidelines for energy efficiency and specifications for indoor air quality.

*\* The construction practices and technical specifications that comprise the ENERGY STAR Indoor Air Package are designed to contribute to improved indoor air quality in new homes compared to code-built homes. However, these measures alone will not guarantee that homebuyers will not experience air quality problems in their homes. Rather, the Indoor Air Package should be viewed as a way to reduce the likelihood of experiencing such problems. For example, factors such as unforeseen construction issues and homeowner behavior may negatively impact the home's indoor air quality and the performance of the measures specified in the ENERGY STAR Indoor Air Package.*



## WHAT FEATURES ARE INCLUDED IN NEW HOMES WITH THE ENERGY STAR INDOOR AIR PACKAGE?

**MOISTURE CONTROL:** Moisture problems can lead to mold and other biological pollutants that can negatively impact health. With the Indoor Air Package, builders use a variety of moisture control features designed to minimize these risks, including improved control of condensation and better roof, wall, and foundation drainage.

**HEATING, VENTILATION, AND COOLING (HVAC) SYSTEM:** Poorly designed and installed HVAC systems can lead to comfort and air quality problems. Homes with the Indoor Air Package include properly engineered system sizing, improved duct and equipment installation, improved filtration, and whole-house and spot ventilation to dilute and remove indoor pollutants. Builders also inspect air-handling equipment and ductwork to ensure they are clean and free of debris and provide adequate air-flow.

**PEST MANAGEMENT:** Residue from pests, such as rodents, dust mites, and cockroaches, is known to trigger allergy and asthma episodes. In addition, wood-eating pests, such as termites, can quickly destroy a homeowner's most valuable investment. With the Indoor Air Package, builders provide a first-line defense against these problems by fully sealing, caulking, or screening possible pest entry points and using termite shields in areas of the country subject to termite infestation.

**COMBUSTION-VENTING SYSTEMS:** In homes with the Indoor Air Package, builders can help protect residents from potential exposure to combustion pollutants by using fossil-fuel heating equipment that cannot spill combustion gases inside the home, installing carbon monoxide alarms in each sleeping area, and taking steps to prevent pollutants in the garage from entering the house.

**BUILDING MATERIALS:** The types of materials builders choose and the way they manage them during construction can affect a home's indoor air quality. Builders following the Indoor Air Package specifications reduce sources of pollutants by protecting materials stored on-site from weather damage, using materials with reduced chemical content, and ventilating homes prior to move-in to help improve indoor air quality.

**RADON CONTROL:** Exposure to radon, a naturally occurring radioactive, invisible, and odorless gas, is the second leading cause of lung cancer in the United States. In high-risk radon areas, homes with the Indoor Air Package are built with radon-resistant construction techniques. Homebuyers in these areas are also provided with test kits to check radon levels after they move in.

**HOMEOWNER EDUCATION:** After purchasing a home with the ENERGY STAR Indoor Air Package, owners receive a manual explaining their home's indoor air quality features and showing how to operate their home to continue minimizing the risk of indoor air quality problems.

For more information, visit [www.energystar.gov/homes](http://www.energystar.gov/homes)



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