

ENERGY STAR QUALIFIED HOMES VERSION 3

The goal of the ENERGY STAR for New Homes program is to help homebuyers easily identify homes that are significantly more energy efficient than standard construction in the marketplace. Over time, as mandated code requirements have become more rigorous and builder standard practices have become more efficient, EPA has periodically modified the ENERGY STAR guidelines for new homes to ensure that homes that earn the label continue to represent a meaningful improvement over non-labeled homes.

Beginning April 1, 2011, the program began following version 2.5, a transition to version 3 which will be implemented beginning January 1, 2012. Both versions 2.5 and 3 are essentially the same, introducing the Thermal Enclosure System Checklist, the HVAC System checklist and the Water Management System Checklist. The distinction is that in version 2.5 only the Thermal Enclosure System Checklist will be enforced. This gives the industry time to become familiar with the newer HVAC and Water Management System requirements before they are enforced with the start up of version 3.

This guide provides an overview of the Owens Corning building materials that will assist home builders in meeting the various new requirements in Energy Star Qualified Homes versions 2.5 and 3.

For more information call 1-800-GET-PINK®



Owens Corning Energy Star Homes Product Guide

HOW YOU CAN MAKE THE GRADE



ENERGY STAR QUALIFIED HOMES, VERSION 3.0



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ENERGY STAR QUALIFIED HOMES V3.0 HOW OWENS CORNING CAN HELP YOU MAKE THE GRADE

CHECKLIST	ENERGY STAR REQUIREMENT	OWENS CORNING PRODUCT										
NATIONAL REQUIREMENT	<p>Infiltration rates shall be less than or equal to the following values:</p> <table border="1"> <thead> <tr> <th>ACH 50</th> <th>Climate Zone</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>1,2</td> </tr> <tr> <td>5</td> <td>3,4</td> </tr> <tr> <td>4</td> <td>5,6,7</td> </tr> <tr> <td>3</td> <td>8</td> </tr> </tbody> </table>	ACH 50	Climate Zone	6	1,2	5	3,4	4	5,6,7	3	8	EnergyComplete™ System with Flexible Seal Technology
ACH 50	Climate Zone											
6	1,2											
5	3,4											
4	5,6,7											
3	8											
THERMAL ENCLOSURE SYSTEM	<p>Section 2 Quality Installed Insulation</p> <p>2.1 Ceiling, wall, floor, and slab insulation levels shall meet or exceed 2009 IECC levels</p> <p>2.2 All ceiling, wall, floor, and slab insulation shall achieve RESNET-defined Grade I installation or, alternatively, Grade II for surfaces with insulated sheathing</p>	<p>Owens Corning™ insulating products provide a range of R-values and applications to meet & exceed all code and Energy Star requirements.</p> <ul style="list-style-type: none"> EcoTouch™ attic, walls and floor insulation, L77, PROPINK Complete™ or AttiCat® blown in fiberglass insulation EnergyComplete™ System with Flexible Seal Technology FOAMULAR® rigid exterior wall insulation PINKWRAP® housewrap Cool Roof Shingles in Harbor Fog, Frosted Oak, Sunrise and Sage; Shasta White in Supreme®, Oakridge®, Duration® and Duration® Premium; Insulated flexible ducts and duct board Grade I installation tool for batts. 										
THERMAL ENCLOSURE SYSTEM	<p>Section 3 Fully-Aligned Air Barriers:</p> <p>Complete air barrier provided</p> <p>Use of tabbed baffle in attic eaves to prevent windwashing</p>	<ul style="list-style-type: none"> EnergyComplete™ System with Flexible Seal Technology raft-R-mate® Attic Rafter Vents 										
THERMAL ENCLOSURE SYSTEM	<p>Section 4 Reduced Thermal Bridging</p> <p>4.1 Uncompressed insulation in attic extends to inside face of exterior wall below: Climate Zone 1 – 4, >/= R-21 Climate Zone 5 – 8, >/= R-30</p> <p>4.2 Slab on grade in Climate Zone 4+, 100% of slab edge >/= R-5</p> <p>4.4.1 Reduced thermal bridging at walls</p>	<ul style="list-style-type: none"> EcoTouch™ PINK® Fiberglas™ Thermal Batts & Rolls with PureFiber® Technology—R-21 and R-30C used to provide required R value in attic spaces at the inside face of the exterior wall below FOAMULAR® Rigid foam wall and foundation insulation—provides insulation and reduced thermal bridging 										
THERMAL ENCLOSURE SYSTEM	<p>Section 5 Air sealing:</p> <p>Applies to all items, particularly 5.2.3, Sheetrock sealed to top plate at all attic/wall interfaces</p>	<ul style="list-style-type: none"> EnergyComplete™ System with Flexible Seal Technology remains flexible and can be applied before drywall is installed. It creates an excellent sealing gasket between top plate and attic/wall interfaces. 										
HVAC SYSTEM QUALITY INSTALLATION	<p>Section 3 Duct Insulation</p> <p>3.2 Supply ducts in unconditioned attics shall have insulation >/= R-8</p> <p>3.3 All other ducts in unconditioned space shall have insulation >/= R-6</p>	<ul style="list-style-type: none"> QuietR® Duct Board and duct wrap products meet all requirements for insulated ductwork. 										
HVAC SYSTEM QUALITY INSTALLATION	<p>Section 4 Duct Leakage</p> <p>4.1 Total duct leakage </= 6 CFM25 per 100 sf of conditioned floor area</p> <p>4.2 Duct leakage to outdoors </= 4 CFM25 per 100 sf of conditioned floor area</p>	<ul style="list-style-type: none"> QuietR® Duct Board installed with ULI181A approved tape or mastic closure system can easily meet this requirement 										
WATER MANAGEMENT	<p>Section 1 Water-Managed Site and Foundation</p> <p>1.3 Capillary break beneath all slabs</p>	<ul style="list-style-type: none"> FOAMULAR® rigid foam insulation 										
WATER MANAGEMENT	<p>Section 2.2 Water-managed wall assembly</p> <p>2.2 Fully sealed continuous drainage plane behind exterior cladding that laps over flashing</p>	<ul style="list-style-type: none"> FOAMULAR® sheathing w/taped joints or PINKWRAP® housewrap with taped joints 										
WATER MANAGEMENT	<p>Section 3.3 Water-Managed Roof Assembly</p> <p>3.3 Self-sealing bituminous membrane or equivalent at all valleys and roof deck penetrations</p> <p>3.4 Climate Zones 5+, self-sealing bituminous membrane or equivalent over sheathing at eaves from edge of roof line to >2ft up roof deck from interior plane of the exterior wall</p>	<ul style="list-style-type: none"> WeatherLock® Flex Flexible Self-Sealing Ice & Water Barrier; WeatherLock® Specialty Tile & Metal underlayment and the full line of WeatherLock® products, other ROOFING ESSENTIALS™ accessory products 										