

## Key points on EarthCraft House™

EarthCraft House™																													
What is EarthCraft House™ Program?	EarthCraft House™ is a green building program that helps member builders construct healthy, comfortable homes that reduce utility bills and protect the environment.																												
Who developed the EarthCraft House™ guidelines?	The program was created in 1999 as a partnership between the Greater Atlanta Home Builders Association, Southface Energy Institute, the government and industry partners.																												
What is the purpose of these guidelines?	The aim of the program is to help home builders be leaders in smart growth management and environmental stewardship.																												
What are pre-requisites for EarthCraft Certified Construction	<p>To achieve EarthCraft House™ certification, homes must meet ENERGY STAR certification criteria, including achieving <b>passing scores from diagnostic tests for air infiltration and duct leakage.</b></p> <p>In order to join the EarthCraft House™ program, the builder of the home must attend a one-day training taught by Southface staff, which includes an overview of program requirements for improving energy efficiency, durability, comfort, air quality and environmental sustainability.</p> <p>In order to participate in the EarthCraft Multifamily program, the development team must conduct a charrette with Southface staff specific to the project pursuing certification.</p>																												
How does a home qualify as EarthCraft House™?	<p>To certify an EarthCraft House™, a builder must do all of the following:</p> <ol style="list-style-type: none"> <li>1. Be a member of the EarthCraft House™ program. (<a href="#">How to become an EarthCraft House™ builder page</a>).</li> <li>2. Register as an ENERGY STAR Partner.</li> <li>3. Participate in a design review with EarthCraft House™ staff.</li> <li>4. Participate in a walk-through with EarthCraft House™ staff.</li> </ol> <p>In addition, every house to be certified must meet the following requirements</p> <ol style="list-style-type: none"> <li>1. Each house must score a <b>minimum of 150 points</b> on the Scoring Worksheet.</li> <li>2. Each house must submit the plans and a Manual J based on orientation</li> <li>3. Each house must meet ENERGY STAR certification criteria</li> <li>4. Each house must have a pre-drywall inspection by an EarthCraft House™ inspector.</li> <li>5. Each house must pass a Final Inspection by an EarthCraft House™ inspector</li> </ol>																												
What are the categories that EarthCraft House™ reviews performance on?	<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Credit Category</u></th> <th style="text-align: right;"><u>Max. Points Available</u></th> </tr> </thead> <tbody> <tr> <td>Site Planning</td> <td style="text-align: right;">32+ points</td> </tr> <tr> <td>Energy Efficient Envelope and Systems</td> <td style="text-align: right;">265 points</td> </tr> <tr> <td>Energy Efficient Lighting/Appliances</td> <td style="text-align: right;">12 points</td> </tr> <tr> <td>Resource Efficient Design</td> <td style="text-align: right;">40 points</td> </tr> <tr> <td>Resource Efficient Building Materials</td> <td style="text-align: right;">76 points</td> </tr> <tr> <td>Waste Management</td> <td style="text-align: right;">30 points</td> </tr> <tr> <td>Indoor Air Quality</td> <td style="text-align: right;">109 points</td> </tr> <tr> <td>Water Indoor</td> <td style="text-align: right;">32 points</td> </tr> <tr> <td>Water Outdoors</td> <td style="text-align: right;">35 points</td> </tr> <tr> <td>Homebuyer Education</td> <td style="text-align: right;">21 points</td> </tr> <tr> <td>Builder Operations</td> <td style="text-align: right;">10 points</td> </tr> <tr> <td>Bonus Points</td> <td style="text-align: right;"><u>62 points</u></td> </tr> <tr> <td><b>Maximum points all categories</b></td> <td style="text-align: right;"><b>724 points</b></td> </tr> </tbody> </table>	<u>Credit Category</u>	<u>Max. Points Available</u>	Site Planning	32+ points	Energy Efficient Envelope and Systems	265 points	Energy Efficient Lighting/Appliances	12 points	Resource Efficient Design	40 points	Resource Efficient Building Materials	76 points	Waste Management	30 points	Indoor Air Quality	109 points	Water Indoor	32 points	Water Outdoors	35 points	Homebuyer Education	21 points	Builder Operations	10 points	Bonus Points	<u>62 points</u>	<b>Maximum points all categories</b>	<b>724 points</b>
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To which EarthCraft House™ guiding principles DuPont™ Tyvek® Weatherization Systems may contribute?	<p>The EarthCraft Scoring Worksheet for new homes consists of over 300 specific items.</p> <p><b>Section:</b> ENERGY EFFICIENT BUILDING ENVELOPE AND SYSTEMS  <input checked="" type="checkbox"/> Required &amp; Additional Airsealing Measures</p> <p><b>Section:</b> RESOURCE EFFICIENT BUILDING MATERIALS  <input checked="" type="checkbox"/> Continuous WRBs</p> <p><b>Section:</b> INDOOR AIR QUALITY</p> <p><b>Section:</b> HOME BUYER EDUCATION</p>																												
<p><i>Please review previous table to learn about how DuPont™ Tyvek® Weatherization Systems may contribute in each Section.</i></p>																													

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EarthCraft House™ is a trademark of the Greater Atlanta Home Builders Association.

# How DuPont™ Tyvek® Weatherization Systems\* contribute to Sustainable Design

## Residential Application: EarthCraft House™

Key Attributes – DuPont™ Tyvek® Weatherization Systems	EarthCraft House™ Credits and points to which Tyvek® may contribute	How may Tyvek® contribute	How to Verify
<p><b>Air Infiltration Resistance:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Tyvek® Weatherization Systems</li> </ul> <p><b>Water Resistance</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Tyvek® Weatherization Systems</li> </ul> <p><b>Water Vapor Permeability</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Tyvek® Weatherization Systems</li> </ul> <p><b>Durability</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Tyvek® Weatherization Systems</li> </ul> <p><b>No VOC</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Tyvek® WRB Membranes</li> <li><input checked="" type="checkbox"/> Flashing Systems</li> </ul> <p><b>Low VOC</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Adhesive and Sealants</li> </ul> <p><b>Compatible System Components</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Tyvek® membranes</li> <li><input checked="" type="checkbox"/> Flashing</li> <li><input checked="" type="checkbox"/> Caulks &amp; Sealants</li> <li><input checked="" type="checkbox"/> Fasteners</li> </ul>	<p><b>EarthCraft House™ and Low-rise Multifamily</b></p> <p><b>ENERGY EFFICIENT BUILDING ENVELOPE AND SYSTEMS</b></p> <p><b>Required Airsealing Measures:</b></p> <p><b>SFH (Single-Family Homes).</b> Must meet or exceed the air sealing requirements of the 2000 IECC or state energy code, whichever is more stringent. Air sealing measures:</p> <p>Housewrap shall be installed according to the manufacturer's specification; all seams must be cut properly and all edges taped to ensure a continuous air barrier. The insulation shall be contiguous (in contact with the Air Barrier).</p> <p>The home must meet minimum criteria for air tightness. The blower door test for a single family home must have a normalized CFM<sub>50</sub> &lt;50 (normalized to the square foot of the building envelope)</p> <p><b>M (Multi-family guidelines):</b> The housing unit must meet minimum criteria for airtightness: &lt;0.35 ACH<sub>nat</sub> (Natural) with outside ventilation</p> <hr/> <p><b>RESOURCE EFFICIENT BUILDING MATERIALS:</b></p> <p>A minimum of 80% of exterior wall area shall have a building paper, housewrap or similar material. The material shall be installed shingle fashion, integrated with flashing, and protect the wall from water moving beyond the exterior cladding</p> <p>All windows and exterior doors shall have a water resistant flashing ...to direct water leaks out of the framing.</p> <hr/> <p><b>INDOOR AIR QUALITY</b></p> <p>All interior sealants and adhesives shall have a maximum VOC content of 250 g/L.</p> <hr/> <p><b>HOME BUYER EDUCATION</b></p> <p>Environmental Checklist: Builder shall provide the home buyer a list of the selected environmental features for the EarthCraft House™.</p>	<p>Use a continuous Tyvek® Weatherization System installed according to DuPont Installation Guidelines; install the air barrier in full contact with insulation; <b>all seams must be cut properly and all edges taped to ensure a continuous air barrier.</b> Supplement with Tyvek® Specialist site visits for installer training</p> <hr/> <p>Use a Tyvek® Weather Resistant Barrier (WRB) behind the cladding; Tyvek® WRB must be installed per DuPont Installation Guidelines, to provide a continuous drainage plane</p> <p>Use DuPont flashing for all windows and exterior doors</p> <hr/> <p>All adhesives and sealants used with Tyvek® WS comply with all applicable standards</p> <hr/> <p>DuPont and/or DuPont Certified Specialists can help provide home buyer education program</p>	<p>The builder must complete the EarthCraft House™ worksheet to show that the home will score enough points to qualify.</p> <p>Every EarthCraft House™ must be inspected and tested by an independent third-party inspector approved by Southface.</p>

\*DuPont™ Tyvek® Weatherization Systems include:

- Primary membranes: Tyvek® Housewrap®, Tyvek® StuccoWrap®, Tyvek® ThermaWrap®, Tyvek® AtticWrap®
- Installation and continuity accessories compatible with Tyvek® primary membranes: flashing, caulks and sealants

**Key points on GreenHouse™ Certified Construction** (Version 1.0, Sept. 2008)

<b>GreenHouse™ Certified Construction</b>	
<b>What is GreenHouse™ Certified Construction program?</b>	It is a Building Package (BP) with minimum <b>prescriptive</b> building design specifications as well as trade-off options for compliance as a GreenHouse Certified home. Building Packages and Trade-offs have been pre-determined to meet or exceed the performance specifications for GreenHouse Certified homes, and no further computer modeling needs to be performed.
<b>Who developed the GreenHouse™ Certified Construction?</b>	GreenHouse™ Certified Construction program was developed by <b>EnerQuality</b> in partnership with industry and government. EnerQuality, founded in 1998, is a licensed service organization to deliver ENERGY STAR® for New Homes, R-2000, the EnerGuide Rating Service, LEED® for Homes and the GreenHouse™ Certified Construction across Ontario, Canada.
<b>What is the purpose of GreenHouse™ Certified Construction program?</b>	The construction practices and technical specifications that comprise the GreenHouse™ Certified Construction program represent an affordable and practical option for homebuilders who want to move beyond energy efficiency.
<b>How does a home qualify as GreenHouse™ Certified Construction?</b>	<p>The builder must have a valid GreenHouse™ Certified Construction Participation Agreement with EnerQuality and be trained and certified according to the latest GreenHouse™ Certified Construction Administrative Procedure.</p> <p>All homes enrolled to be GreenHouse Certified are required to be inspected during construction by an evaluator that has been certified by EnerQuality, to confirm compliance with technical specifications.</p>
<b>What are pre-requisites for GreenHouse™ Certified Construction?</b>	<p>The house must meet requirements of Ontario’s 2006 Building Code.</p> <p>A building which complies with ENERGY STAR® for New Homes Specifications, Version 3.0, April 2007, will also comply with the energy provisions of GreenHouse.</p>
<b>To which GreenHouse™ Certified Construction guidelines and specifications DuPont™ Tyvek® Weatherization Systems may contribute?</b> <p><i>Please review previous table to learn about how Tyvek® Weatherization Systems may contribute in each Section.</i></p>	<p><b>GreenHouse™ Certified Construction Technical Specifications</b></p> <p><b>Section 2:</b> Energy Efficiency</p> <p><b>Section 3:</b> Indoor Air Quality</p>

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**How DuPont™Tyvek® Weatherization Systems\* contribute to Sustainable Design  
Residential Application: GreenHouse™ Certified Construction (version 1, Sept. 2008)**

Key Attributes – DuPont™ Tyvek® Weatherization Systems	GreenHouse™ Certified Construction Credits & points to which Tyvek® may contribute	How may Tyvek® contribute	How to Verify
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