

October 1st, 2012

ENERGY STAR® Version 3

- The ENERGY STAR Version 3 requirements for insulation are based off of the 2009 IECC requirements for each Climate Zone. Please see the Energy Star Version 3 (revision 6) Thermal Enclosure System Rater Checklist (TESRC 2.1.1). In areas that the 2012 IECC has been adopted, the new insulation requirements exceed that of the 2009 IECC, resulting in a greater R-value/U-factor than ENERGY STAR requires.
- The ENERGY STAR program also requires builders to comply with the Reduced Thermal Bridging section (TESRC 4). In order to comply with the section 'Reduced thermal bridging at above grade walls separating conditioned from unconditioned space' (TESRC 4.4), a builder has five options:
 1. TESRC 4.4.1 – Continuous rigid insulation, insulated siding, or combination of the two; \geq R-3 in Climate zones 1-4, \geq R-5 in Climate zones 1-8, **OR**;
 2. TESRC 4.4.2 – Structural Insulated Panels (SIPs), **OR**;
 3. TESRC 4.4.3 – Insulated Concrete Forms (ICFs), **OR**;
 4. TESRC 4.4.4 – Double-wall framing, **OR**;
 5. TESRC 4.4.5 – Advanced framing, including all of the items below:
 - TESRC 4.4.5a)** All corners insulated \geq R-6 to edge
 - TESRC 4.4.5b)** All headers above windows & doors insulated
 - TESRC 4.4.5c)** Framing limited at all windows & doors insulated
 - TESRC 4.4.5d)** All interior/exterior wall intersections insulated to the same R- value as the rest of the exterior wall
 - TESRC 4.4.5e)** Minimum stud spacing of 16 in. o.c. for 2x4 framing in all Climate Zones and, in Climate Zones 5 through 8, 24 in. o.c. for 2x6 framing
- Homes that meet or exceed the 2009 IECC insulation requirements can pass ENERGY STAR Version 3 as long as they comply with the four Energy Star Version 3 (revision 6) checklists and meet or exceed the specific reference design HERS index target.

2012 IECC

- In order to comply with the 2012 IECC requirements for wall insulation in climate zones 3, 4, 4 Marine & 5, a builder has the following options:
 - 1) Follow the R-value requirements of either R-20 or R-13 with an exterior insulation of R-5 as specified in table R402.1.1, **OR**;
 - 2) Follow the U-factor alternative method where the U-factor of the wall assembly must be 0.057 or less as specified in table R402.1.3.

ESP Low-E Reflective Insulation provides a continuous exterior insulation. When combined with R-15 cavity insulation, the total U-factor of the wall assembly will be 0.056 and fully complies with 2012 IECC requirements following the U-factor alternative.



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