



## Builder Guidelines – Building Envelope

### Insulation

Component	Typical R-Value
Ceiling Insulation	R-30
Walls, Kneewalls, & Rim Band/Joists	R-13
Floors over Garages, Outside, Vented Crawl Spaces	R-30
Basements/Unvented Crawl Spaces	R-10 Walls or R-19 Floor Above
Slab Edge/Slab Under	R-10/R-10

Note: All insulation must be installed according to ICAA, NAIMA and manufacturer guidelines

### Windows, Doors and Skylights

Component	Typical U-Value/SHGC
Windows & glass doors	ENERGY STAR $\leq$ U-0.35 / SHGC-0.39
Basement windows	ENERGY STAR $\leq$ U-0.50 / SHGC-0.60
Skylights	ENERGY STAR $\leq$ U-0.54 / SHGC-0.40
Doors	R-4.5

### Air-Sealing

House air leakage not more than 1.0 cfm per square foot conditioned floor area as tested with a blower door

## Air Sealing and Draft Blocking Requirements

Address all applicable items on the EPA Thermal Bypass Checklist (see attached). In addition:

- Seal the following areas with silicon caulk, adhesive, non-expanding/minimal expanding spray foam or closed-cell gaskets. Note that fiberglass insulation is not an air barrier and will not perform adequately as a sealant.
  - Sill plates, base plates, and band joist areas;
  - Window and door rough openings;
  - All exterior wall penetrations;
  - Around all duct penetrations and connections of duct boots, stack heads, or boxes to drywall or subfloor.
- Insulate and weather strip all doors and access panels leading to outside garages, storage areas, basement bulkhead and other non-heated spaces.

