

2021 Residential Energy Efficiency Compliance Sheet

Residential Buildings (R-2, R-3, R-4, and R-5) no more than three stories in height

All construction requiring insulation (Homes, Additions, Heated Sun rooms or remodel) must be accompanied accompanied by an Energy Efficiency Compliance Sheet upon application for a permit

VRC N1101.5.1 Thermal envelope depiction: The buildings thermal envelop shall be represented on the construction drawings. *Installed type and R-Value must meet or exceed the minimum requirements.*

<u>Building Assemblies</u>	<u>Minimum R-Value</u>	<u>Insulation Type & R-Value Installed</u> <i>(insulation you are installing)</i>				
		<u>R - Value</u>	<u>Insulation Type (Circle One Type) ^A</u>			
Walls (R-value)	R-15 or R-13 +R-1 ^h		Batt	Foam	Blown-In	Other
Floors (R-value)	R-19		Batt	Foam	Other	
Ceiling (R-value) ^B	R-60		Batt	Foam	Blown-In	Other
Ceiling (R-value) Raised Heel Trusses ^G	R-49		Batt	Foam	Blown-In	Other
Ceiling (no attic) 500 sq ft max area ⁱ	R-30		Batt	Foam	Blown-In	Other
Basement Walls (R-value)	R-10 continuous or R-13 cavity fill		Batt	Foam	Blown-In	Blanket Other
Crawl Space Walls (Conditioned) ^C	R-10 continuous or R-13 cavity fill		Batt	Foam	Blanket	Other
Concrete Slab (less than 24" below grade)	R-10, 4ft			Foam	Other	
Slab (R-Value) - Heated	R-10, 2ft; R-5 under full slab area			Foam	Other	
Mass Wall (R-value) ^D	R-8/R-13 ^F		Blanket	Foam	Other	
Windows (U-factor) ^E	0.30					
Skylights (U-factor) ^E	0.55 max					
Glazed Fenestration (including Doors)SHGC ^E	0.40 max					
Hinged Vertical attic access doors	R-5		Batt	Foam	Blanket	Other
Pull down attic access stairs	R-5 Rigid 75% of panel area			Rigid Foam	Other	

A - Types of insulation include sheet foam, fiberglass, blown insulation and open/closed cell foam

B - Ceilings without attic space (sunroom, vaulted ceiling) where the roof/ceiling assembly does not allow sufficient space for R-60 insulation, a minimum of R-30 is allowed but shall be limited to 500 ft2 of ceiling area

C - Crawl space walls need to be insulated only if structure floor above is not insulated. (Conditioned Crawl Space)

D - Mass walls are walls of concrete block, concrete, insulated concrete form, masonry cavity, brick (not veneer), earth (adobe) or solid timber/log

E - All U - factors are per manufactures specifications and the International Energy Conservation Code.

F - Second value required when more than half the insulation is on the interior of the mass wall.

G - Full Height insulation provided, ie Raised Heel Trusses with blocking as required per code (R402.2.1) and extends over top plate

H - First value is cavity insulation, second is the continuous, so R-13 + R-1 means R-13 cavity plus R-1 continuous insulation or insulated siding. Only insulation materials can be summed to determine the component R-value

I - Roof area limited to a maximum 500 square feet. Insulation shall extend over the top of the wall plate and shall not be compressed.

Section M1401.3 Virginia Residential Code requires heating and cooling equipment to be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. Ducts and air handlers outside the building thermal envelope shall be pressure tested to determine air leakage.

A written report for air leakage shall be signed by the party conducting the test and provided to the code official (N1102.4.1.2)

R402.4.1.2 Testing of building air leakage rate: A test per RES-NET/ICC 380, ASTM E779, or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 pascals) to verify air leakage of the building/dwelling. The report shall be signed by the party conducting the test and shall be presented to the building official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelop but cannot exceed 5 air change per hour.

X

Signature

X

Print