Air Space Requirements
Do-It-Yourself Applications

All applications with an R-Value claim must have an enclosed air space (a cavity without free air flow) or face an open air space. Please refer to the chart below for the Air Space Requirements per application.

Application:	Benefit:	Air Space Specification (relative to product):	Building Components (product is attached to):	Products:
Attic	Radiant Barrier	Open Attic	2″x 6″ Rafters or Roof Decking	Double-Sided Reflective Insulation or Radiant Barrier
Behind Hot Water Radiator	R-3.0 & Reflector	Between the Radiator and Wall	Interior Wall	Double-Sided Reflective Insulation
Cathedral Ceiling Below Mass Insulation	R-7.0 Summer R-1.0 Winter	0.75″	Inside Bottom of Rafter	Double-Sided Reflective Insulation
Cathedral Ceiling Vented Above Mass Insulation	Radiant Barrier	0.75″	Underside of Decking	Double-Sided Reflective Insulation
Cathedral Ceiling Unvented Above Mass Insulation	R-6.0 Summer R-2.0 Winter	0.75″	Underside of Decking	Double-Sided Reflective Insulation
Crawl Space	R-16	9.5″ Floor Joist Cavity	Underside of Floor Joist	Double-Sided Reflective Insulation
Crawl Space	R-21	9.5″ Floor Cavity in Two	Side and Underside of Floor Joist	Two Layers of Double-Sided Reflective Insulation
Duct Insulation	R-6.0	Exterior of Product and .75″ Air Space Created by Spacer	.75″ Spacer	Double-Sided Reflective Insulation
Garage Door	R-3.0 & Radiant Barrier	Interior Side of Door	Garage Door	Double-Sided Reflective Insulation
House Wrap	Radiant Barrier	0.5″ Behind Brick	Panel Behind Exterior Finish	Radiant Barrier
House Wrap	Radiant Barrier	0.25″ (nominal) Behind Siding	Panel Behind Exterior Finish	Radiant Barrier
Knee Wall	R-16 (with an R-13 batt)	Back of Wall	Knee Wall Studs	Double-Sided Reflective Insulation
Knee Wall	R-19 (with an R-13 batt)	Back of Wall and Interior 0.75″ Air Space from Furring	1″x 2″ Nominal Furring Strip	Double-Sided Reflective Insulation
Radiant Floor Wood Joists	R-16 & Reflector	9.5″ Floor Joist Cavity	Underside of Floor Joist	Double-Sided Reflective Insulation
Radiant Floor Wood Joists	R-21 & Reflector	Split 9.5″ Floor Cavity in Two	Side and Underside of Floor Joist	Two Layers of Double-Sided Reflective Insulation
Wall - Exterior 2″x 4″	R-14 (with an R-13 batt)	0.75″ - Inside Wall Cavity - Interior Side	2″x 4″ Stud	Double-Sided Reflective Insulation
Wall - Exterior 2″x 6″	R-21 (with an R-19 batt)	0.75″ - Inside Wall Cavity - Interior Side	2″x 6″ Stud	Double-Sided Reflective Insulation
Wall - Masonry	R-3.7	0.75″ - Created by 1″x 2″ Nominal Furring	1″x 2″ Nominal Furring	Double-Sided Reflective Insulation
Wall - Masonry	R-7.0	Two 0.75″ Air Spaces Created by Splitting the 2″x 2″ Nominal Furring	2″x 2″ Nominal Furring	Double-Sided Reflective Insulation
Water Heater	R-4.5	Exterior of Product and 0.75″nclosed Air Space	Product Attached Over the Top of 0.75″Spacer	Double-Sided Reflective Insulation

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