

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 | 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 | 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-4.2 | 1.5" Created by 2"x 2" Nominal Furring | 2"x 2" Nominal Furring | Double-Sided Reflective Insulation |
| Wall - Masonry | R-6.1 | 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 5/8" Enclosed Air Space | Product Attached Over the Top of 5/8" Spacer | Double-Sided Reflective Insulation |