

# Air Space Requirements -- Metal Building 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 (that product is attached to):	Product/s:
Roof/New (with Thermal Breaks)	R-9.2 Down R-4.1 Up	0.75" Above and Open Below	Product Below 0.75" Thermal Break - Above Purlin	Double-Sided Reflective Insulation
Roof/New (without Thermal Breaks)	R-7.6 Down R-3.9 Up	0.75" (nominal) Above and Open Below	Product Below Roof and Above Purlin	Double-Sided Reflective Insulation
Roof/Retrofit	R-11 Down R-4.4 Up	8.75" Above and Open Below	Attached to 1"x 2" (nominal) Furring Below Purlin	Double-Sided Reflective Insulation
Wall/New (with Thermal Breaks)	R-5.6	0.75" Outside and Open Inside	Product Inside 0.75" Thermal Break and Outside of Girt	Double-Sided Reflective Insulation
Wall/New (without Thermal Breaks)	R-4.7	0.75" (nominal) Outside and Open Inside	Product Inside Wall Panel and Outside of Girt	Double-Sided Reflective Insulation
Wall/Retrofit	R-4.5	8.75" Outside and Open Inside	Attached to 1"x 2" (nominal) Furring Inside Girt	Double-Sided Reflective Insulation
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Roof/New (without Thermal Breaks)	R-4.0 Down R-3.2 Up	0.75" (nominal) Above and Open Below	Product Below Roof and Above Purlin	Single-Sided Reflective Insulation
Roof/Retrofit (under Purlin)	R-7.5 Down R-3.6 Up	8.75" Above and Open Below	Attached to a 1"x 2" (nominal) Furring Below Purlin	Single-Sided Reflective Insulation
Wall/New (without Thermal Breaks)	R-3.7	.075" (nominal) Outside and Open Inside	Product Inside Wall Panel and Outside of Girt	Single-Sided Reflective Insulation
Wall/Retrofit	R-3.5	8.75" Outside and Open Inside	Attached to 1"x 2" (nominal) Furring Inside Girt	Single-Sided Reflective Insulation