

IECC 2012 / ASHRAE 2010 Fiberglass Solutions

IECC 2012 Building Envelope Requirements, Table C402.1.2 Metal Building Walls			
Climate Zone	Prescriptive Maximum U-Factor	Compliance Options	
		U - Factor	Assembly Description
1	0.079	0.059*	Single Layer, Filled Cavity Insulation System - R-25 with 1/8" Foam Tape
2			
3			
4	0.052	0.052*	Single Layer, Filled Cavity Insulation System - R-30 with 1/8" Foam Tape
5			
6			
7			
8			

* Use with COMcheck - Other Metal Building Wall

IECC 2012 Building Envelope Requirements, Table C402.1.2 Metal Building Roof			
Climate Zone	Prescriptive Maximum U-Factor	Compliance Options	
		U - Factor	Assembly Description
1 ^a	0.044	0.037**	Filled Cavity / Long Tab Banded Insulation System - Faced R-19 plus Unfaced R-11 with Thermal Blocks and Standing Seam Roof
2 ^a	0.035	0.035**	Filled Cavity / Long Tab Banded Insulation System - Faced R-25 plus Unfaced R-11 with Thermal Blocks and Standing Seam Roof
3 ^a			
4			
5			
6	0.031	0.029**	Filled Cavity / Long Tab Banded Insulation System - Faced R-25 plus Unfaced R-19 with Thermal Blocks and Standing Seam Roof
7			
8	0.029		

** Use with COMcheck - Other Metal Building Roof

^a Metal Building roofs with a slope less than 2:12, installed directly above cooled conditioned spaces in Climate Zones 1, 2, and 3 shall comply with one or more of the following options; 3 year aged Solar Reflectance of 0.55 and a 3 year aged Thermal Emittance of 0.75 or an initial Solar Reflectance of 0.70 and an initial Thermal Emittance of 0.75 or a 3 year aged Solar Reflectance Index of 64 or an initial Solar Reflectance Index of 82, see C402.2.1.1 for a list of exceptions.

ASHRAE 90.1-2010 Building Envelope Requirements, Table 5.5 Non-Residential Metal Building Walls			
Climate Zone	Prescriptive Maximum U-Factor	Compliance Options	
		U - Factor	Assembly Description
1	0.093	0.093	Single Layer, Faced R-16 Fiberglass Blanket
2			
3	0.084	0.084	Single Layer, Faced R-19 Fiberglass Blanket
4			
5	0.069	0.059*	Single Layer, Filled Cavity Insulation System - R-25 with 1/8" Foam Tape
6			
7	0.057	0.052*	Single Layer, Filled Cavity Insulation System - R-30 with 1/8" Foam Tape
8			

* Use with COMcheck - Other Metal Building Wall

ASHRAE 90.1-2010 Building Envelope Requirements, Table 5.5 Non-Residential Metal Building Roof			
Climate Zone	Prescriptive Maximum U-Factor	Compliance Options	
		U - Factor	Assembly Description
1 ^b	0.065	0.065	Single Layer, Faced R-19 Fiberglass Blanket with Thermal Blocks and Standing Seam Roof
2	0.055	0.055	Double Layer, Faced R-13 plus Unfaced R-13 Fiberglass Blanket with Thermal Blocks and Standing Seam Roof
3			
4			
5			
6	0.049	0.049	Double Layer, Faced R-13 plus Unfaced R-19 Fiberglass Blanket with Thermal Blocks and Standing Seam Roof
7			
8	0.035	0.035**	Filled Cavity / Long Tab Banded Insulation System - Faced R-25 plus Unfaced R-11 with Thermal Blocks and Standing Seam Roof

** Use with COMcheck - Other Metal Building Roof

^b Metal Building roof panels installed directly above cooled conditioned spaces in Climate Zone 1, shall comply with a minimum 3 year aged Solar Reflectance of 0.55 and a minimum 3 year aged Thermal Emittance of 0.75 or a minimum 3 year aged Solar Reflectance Index of 64, if not, the roof insulation must be increased by installing a system with a maximum U - Factor of 0.028.