

Tested Assemblies listed in RED

ROOF ASSEMBLIES			90.1-2007 & 2010 Table A2.3	90.1-2013, 2016, 2019 2022 & 2025 - Table A2.3.3	
DESCRIPTION	MATERIAL	INSTALLATION	U-FACTOR ¹	R-VALUE	U-FACTOR ²
Over the Purlin	R-19 + thermal spacer block	Over the purlin	0.065	15.38	0.082
Double Layer	R-13 + R-13 + thermal spacer block	Sag 'N Bag	0.055	18.18	0.075
Double Layer	R-13 + R-19 + thermal spacer block	Sag 'N Bag	0.049	20.41	0.068
Liner System (Screw down roof)	R-19 + R-11 w/o thermal spacer block	Between & over purlins	0.044	22.73	0.044
Long Tab Banded / Filled Cavity System	R-19 + R-10 + R-5 thermal spacer block	Between & over purlins	0.041	24.39	0.041
Liner System (Standing Seam Roof)	R-19 + R-11 w/o thermal spacer block	Between & over purlins	0.040	25.00	0.040
Long Tab Banded / Filled Cavity System	R-19 + R-11 + R-5 XPS TB	Between & over purlins	0.037 ^a	27.20 ^a	0.037 ^a
Long Tab Banded / Filled Cavity System	R-19 + R-11 + R-5 thermal block	Between & over purlins	—	—	0.037
Liner System	R-25 + R-8 + thermal spacer block	Between & over purlins	—	—	0.037
Liner System	R-19 + R-11 + thermal spacer block	Between & over purlins	0.035	28.57	0.037
Long Tab Banded / Filled Cavity System	R-25 + R-11 + R-5 thermal block	Between & over purlins	—	—	0.035 ^a
Liner System	R-25 + R-11 + thermal spacer block	Between & over purlins	0.031	32.30	0.031
Liner System	Blow-in + R-11 + R-5 XPS TB	Between & over purlins	0.031 ^a	32.20 ^a	0.031 ^a
Long Tab Banded / Filled Cavity System	R-25 + R-19 + R-5 XPS TB (10" purlins)	Between & over purlins	0.029 ^a	34.10 ^a	0.029 ^a
Liner System	R-30 + R-11 + thermal spacer block	Between & over purlins	0.029	34.48	0.029
Liner System	R-25 + R-19 + R-5 XPS TB (10" purlins)	Between & over purlins	—	—	0.028 ^a
Liner System	R-25 + R-11 + R-11 + thermal spacer block	Between & over purlins	0.026	38.50	0.026

1. unless otherwise stated, 90.1-2007 requires R-5 thermal spacer block, 90.1-2010 requires R-3.5 thermal spacer block 2. unless otherwise stated, requires R-3 thermal spacer block a. Values from test reports

WALL ASSEMBLIES			90.1-2007 & 2010 Table A3.2	90.1-2013, 2016, 2019 2022 & 2025 - Table A3.2.3	
DESCRIPTION	MATERIAL	INSTALLATION	U-FACTOR	R-VALUE	U-FACTOR
Single Layer MBI	R-13	Between girt and panel	0.113	8.85	0.162
Single Layer MBI	R-16	Between girt and panel	0.093	10.75	0.155
Single Layer MBI	R-19	Between girt and panel	0.084	11.90	0.147
Double Layer MBI	R-6 + R-13	Inside girt and outside girt	0.070	14.28	Removed 2013
Double Layer MBI	R-10 + R-13	Inside girt and outside girt	0.061	16.39	Removed 2013
Filled Cavity	R-25 + 1/8" Foam Tape (8" girts)	Between the girts	0.059	17.10	0.059
Liner System	R-25 + 1/8" Foam Tape (8" girts)	Between the girts	0.059 ^b	17.10 ^b	0.059 ^b
Double Layer MBI	R-13 + R-13	Inside girt and outside girt	0.057	17.54	Removed 2013
Liner System	R-30 + 1/8" Foam Tape (8" girts)	Between the girts	0.052 ^b	19.20 ^b	0.052 ^b
Filled Cavity	R-30 + 1/4" Foam Tape (8" girts)	Between the girts	0.052	20.41	0.052
Double Layer MBI	R-19 + R-13	Inside girt and outside girt	0.048	20.83	Removed 2013
Double Layer MBI	R-25 + R-10	Inside girt and outside girt	—	—	0.047
Liner System	R-32.5 + 1/8" Foam Tape (8.5" girts)	Between the girts	0.044 ^b	22.60 ^b	0.044 ^b
Double Layer MBI	R-25 + R-16	Inside girt and outside girt	—	—	0.042
Filled Cavity	R-25 + R-16 + 1/8" Foam Tape (8.5" girts)	Between girt and outside girt	0.039 ^b	25.30 ^b	0.039 ^b
Double Layer MBI	R-25 + R-10 + R-3 thermal spacer block	Inside girt and outside girt	—	—	0.039
Double Layer MBI	R-30 + R-16 (8" girts)	Between the girts	—	—	0.039
Filled Cavity	R-25 + R-13 + R-5 XPS TB (8.5" girts)	Between girt and outside girt	0.038 ^b	25.40 ^b	0.038 ^b
Liner System	R-16 + R-25 + 1/8" Foam Tape (10" girts)	Between girt and outside girt	0.036 ^b	27.50 ^b	0.036 ^b
Liner System	R-13 + R-25 + R-5 XPS TB (10" girts)	Between girt and outside girt	0.035 ^b	28.80 ^b	0.035 ^b

b. Values from test reports

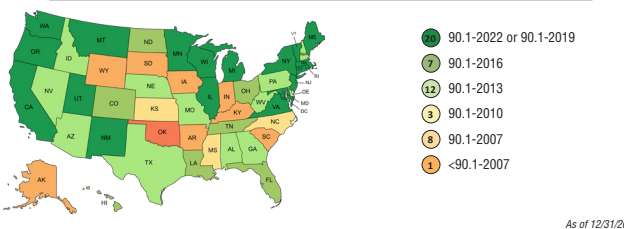
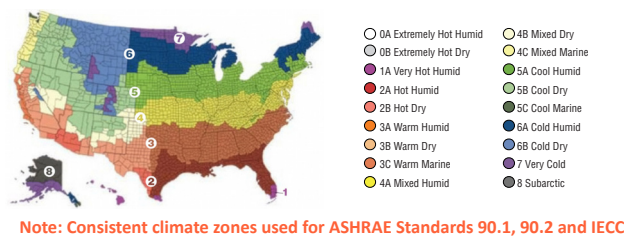
Bay Rider™
(formerly the Owens Corning ELAMINATOR® Insulation System)

Thermal Performance

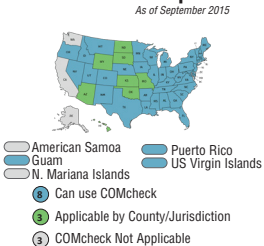
INSULATION ¹	THERMAL BREAK ²	U-FACTOR ³
R-19	R-5	0.065
R-10/R-10	R-5	0.063
R-10/R-11	R-5	0.061
R-10/R-13	R-5	0.058
R-11/R-13	R-5	0.058
R-13/R-13	R-5	0.055
R-10/R-19	R-5	0.052
R-11/R-19	R-5	0.052
R-13/R-19	R-5	0.050
R-16/R-19	R-5	0.049
R-19/R-19	R-5	0.048

Note: Units on U-values are Btu/(hr.ft² °F), R-Values are hr.ft² °F/Btu
 1. MBI Plus Filler Blanket Insulation
 2. 1" x 3" XPS thermal block
 3. Calculation based on standing seam roof (SSR) system

Climate Zone & Code Maps



COMcheck Compliance



COMcheck Applicable by County/Jurisdiction:
 Arizona, Kansas, Missouri, North Dakota, Oklahoma, South Dakota, Wyoming

States Not Accepting COMcheck:
 Alaska, California, Washington

