BamCore R-Value with **Fiberglass** Insulation (R of 4.1/inch)

	5.5	7.25	9.25	11.25	
Cavity Width (in)	5.5	7.25	9.25	11.25	
Structural Thickness (in)	8	9.75	11.75	13.75	
Energy Code Framing Factor	6.65%	6.65%	6.65%	6.65%	Energy Code Framing Factor: 6.65%
Typical R-Value	**24.74**	30.81	37.71	44.57	
Typical U-Factor	**0.0404**	0.0325	0.0265	0.0224	
Bare Minimum Framing Factor w/ 50% @ 8'	3.28%	3.28%	3.28%	3.28%	Bare Minimum Framing Factor w/ 50% @ 8': 3.28%
R-Value	26.05	32.64	40.14	47.63	
U-Factor	0.0384	0.0306	0.0249	0.0210	
Bare Minimum Framing Factor w/ 85% @ 4'	5.16%	5.16%	5.16%	5.16%	Bare Minimum Framing Factor w/ 85% @ 4': 5.16%
R-Value	25.30	31.59	38.75	45.88	
U-Factor	0.0395	0.0317	0.0258	0.0218	
High End Framing Factor	9.78%	9.78%	9.78%	9.78%	High End Framing Factor: 9.78%
R-Value	23.64	29.29	35.70	42.07	
U-Factor	0.0423	0.0341	0.0280	0.0238	

BamCore R-Value with **Cellulose** Insulation (R of 3.5/inch)

	5.5	7.25	9.25	11.25	
Cavity Width (in)	5.5	7.25	9.25	11.25	
Structural Thickness (in)	8	9.75	11.75	13.75	
Energy Code Framing Factor	6.65%	6.65%	6.65%	6.65%	Energy Code Framing Factor: 6.65%
CEC R-Value	**22.19**	27.53	33.60	39.64	
CEC U-Factor	**0.0451**	0.0363	0.0298	0.0252	
Bare Minimum Framing Factor w/ 50% @ 8'	3.28%	3.28%	3.28%	3.28%	Bare Minimum Framing Factor w/ 50% @ 8': 3.28%
R-Value	23.15	28.86	35.37	41.87	
U-Factor	0.0432	0.0347	0.0283	0.0239	
Bare Minimum Framing Factor w/ 85% @ 4'	5.16%	5.16%	5.16%	5.16%	Bare Minimum Framing Factor w/ 85% @ 4': 5.16%
R-Value	22.60	28.10	34.36	40.60	
U-Factor	0.0442	0.0356	0.0291	0.0246	
High End Framing Factor	9.78%	9.78%	9.78%	9.78%	High End Framing Factor: 9.78%
R-Value	21.37	26.40	32.10	37.78	
U-Factor	0.0468	0.0379	0.0311	0.0265	

Example Calculation*

				BamCore Prime 8in		
				10' wall w/ 50% blocking @ 8'oc		
				Assembly 8.56		
R/in (1 for set layers)	Thickness			Cavity	Blocking	Plates
0.17	Default	1	Outside air film	0.17	0.17	0.17
			Exterior Insulation (not used)			
0.08	Default	2	Stucco	0.08	0.08	0.08
0.06	Default	3	Building paper (felt)	0.06	0.06	0.06
1.36	1.28	4	BamCore Panel	1.73	1.73	1.73
		5a	Framing (thickness Applied)			
0.99	5.5		Plates			5.445
0.99	5.5		Blocking		5.445	
4.1	5.5	5b	R insulation (thickness Applied)	22.55		
1.36	1.28	6	BamCore Panel	1.73	1.73	1.73
0.9	0.5	7	.5" Gypsum board	0.45	0.45	0.45
0.68	Default	8	Inside air film	0.68	0.68	0.68
			Total without percent of area	27.459	10.354	10.354
			% of area base on standard BamCore wall Framing Factors.	93.35%	4.15%	2.50%
			U-factor	0.0340	0.0040	0.0024
			Energy Code Framing Factor	**6.65%**		
			Typical R-Value	**24.74**		
			Typical U-Factor	**0.0404**		

*Two-Dimensional U-Factor Calculation using the parallel-path method, which can be found in the 2009 ASHRAE Handbook of Fundamentals. This ASHRAE Handbook is referenced for calculation methods in the International Energy Conservation Code, which is the basis for each states' energy code.

ASHRAE. 2009. ASHRAE Handbook-Fundamentals, Atlanta: ASHRAE.