



Phius CORE 2024 Prescriptive - Reference Tables

Opaque Component Effective R-Value Ranges [hr.sf.F/Btu]											
Climate Zone	1A/B	2A/B	3A/B	3C	4A/B	4C	5A/B	5C	6A/B	7	8
Roofs	R 41 - 53	R 50 - 58	R 52 - 67	R 55 - 60	R 59 - 77	R 57 - 73	R 61 - 78	R 63 - 74	R 70 - 97	R 75 - 103	R 77 - 172
Walls & Overhanging Floors (Above Grade)	R 20 - 24	R 21 - 27	R 23 - 38	R 26 - 31	R 29 - 46	R 29 - 43	R 31 - 47	R 34 - 47	R 39 - 68	R 44 - 70	R 50 - 160
Ceilings (Unconditioned Basement / Crawlspace)	R 12 - 20	R 13 - 19	R 13 - 25	R 16 - 20	R 19 - 32	R 19 - 31	R 20 - 35	R 20 - 33	R 25 - 51	R 30 - 51	R 36 - 105
Walls & Floors (Below Grade)	R 7 - 15	R 8 - 14	R 8 - 20	R 11 - 15	R 14 - 27	R 14 - 26	R 15 - 30	R 15 - 28	R 20 - 46	R 25 - 46	R 31 - 100
Window & Door U-Value Ranges [Btu/hr.sf.F]											
Climate Zone	1A/B	2A/B ¹	3A/B ¹	3C	4A/B	4C	5A/B	5C	6A/B	7	8
Windows & Doors (Whole-Window)	0.50 - 0.29	0.49 - 0.23	0.43 - 0.18	0.30 - 0.25	0.23 - 0.15	0.30 - 0.18	0.23 - 0.13	0.27 - 0.20	0.19 - 0.11	0.22 - 0.10	0.19 - 0.08

¹ Maximum Whole-Window U-value in California is $U_w=0.30$ per Title 24.

Window & Door Solar Protection Ranges											
Climate Zone	1A/B	2A/B	3A/B²	3C²	4A/B	4C	5A/B	5C	6A/B	7	8
Maximum SHGC³ (Whole-Window)	0.23	0.23	0.23 - 0.25	0.23	0.40	NR					
Minimum South Overhang (Projection Factor)	0.06 - 0.59	0.42 - 0.58	0.53 - 0.71	0.6 - 0.67	NR						
Adequate Exposure Diversity (AED)	Varies⁴										
Net Heat Gain	NR				Varies	NR	Varies	NR	Varies		NR

² Maximum SHGC in California is 0.23 per Title 24.

³ Solar Heat Gain Coefficient

⁴ Dependent on both building and climate factors.

Mechanical Efficiency Ranges													
Climate Zone		1A/B	2A/B	3A/B		3C	4A/B	4C	5A/B	5C	6A/B	7	8
Minimum ASRE ⁵ (E/HRVs)		NR	60 - 65%	60 - 76%		60 - 62%	71 - 82%	60 - 81%	72 - 85%	69 - 76%	78 - 87%	76 - 89%	78 - 91%
Minimum TRE ⁶ (E/HRVs)		60%	60%	60%	NR		50%	NR					
Heating	Minimum COP ⁷ @ 5°F: (Air-Source Heat Pumps)	NR					1.75	NR	1.75	NR	1.75		
	Minimum HSPF ⁸ (Air-Source Heat Pumps)	9.6					NR	9.6	NR	9.6	NR		
	Minimum COP (Ground-Source Heat Pumps)	3.1											
Cooling	Minimum SEER ⁹ (Air-Source Heat Pumps)	18					15	18	15	18	15		
	Minimum EER ¹⁰ (Ground-Source Heat Pumps)	16.1											

⁵ Adjusted Sensible Recovery Efficiency

⁶ Total Recovery Efficiency

⁷ Coefficient of Performance

⁸ Heating Seasonal Performance Factor

⁹ Seasonal Energy Efficiency Ratio

¹⁰ Energy Efficiency Ratio