



**Prescriptive Compliance of Additions  
2019 California Energy Standards  
Package D – Climate Zone 10**

Component	< 100 SF <sup>1</sup>	> 100 SF but <1,000 SF	> 1,000 SF
<u>Radiant Barrier</u>	Req.	Req.	Req.
<u>Insulation</u>			
Ceiling	R-30	R-30	R-30
Wall	R-13	R-13	R-13
Heavy Mass Wall <sup>2</sup>	(R-2.44)	(R-2.44)	(R-2.44)
Floor	R-19	R-19	R-19
<u>Fenestration</u>			
Max U-Factor <sup>3</sup>	0.57	0.57	0.57
%of CFA	≤50SF	20% +removed	20%
Max West Facing SHGC	0.40	5%	5%
		0.40	0.40
<u>Space Heating<sup>4</sup></u>			
FAU	AFUE 78%	AFUE 78%	AFUE 78%
Wall Heater	See Table 4-2	See Table 4-2	See Table 4-2
Heat PumpT. 4-3	7.7 HSPF	7.7 HSPF	7.7 HSPF
<u>Space Cooling</u>			
Table 4-4	SEER 13	SEER 13	SEER 13
Duct Insulation	R-6	R-6	R-6
Sealed Ducts & TXV's <sup>5</sup>	Req. <sup>6</sup>	Req. <sup>6</sup>	Req. <sup>6</sup>
or			
Alternative			
U-Factor	0.38	0.38	0.38
SHGC	0.31	0.31	0.31
SEER	13	13	13
or Table 8-3			
<u>Water Heating</u>	EF	EF	EF
Replacement			
Storage	0.67	0.67	0.67
Instant	0.62	0.62	0.62
Increase	See Table 5-4	See Table 5-4	See Table 5-4

<sup>1</sup> This approach does not allow credit for glass removed. Compliance with the requirements for additions <500 SF is allowed, in which case credit for removed glass is allowed.

<sup>2</sup> The heavy mass wall R-value in parentheses is the minimum R-value for the entire wall assembly if the wall weight exceeds 40 pounds per square foot. Any insulation installed on heavy mass walls must be integral with, or installed on the outside of, the exterior mass. The inside surface of the thermal mass, including plaster or gypsum board in direct contact with the masonry wall, shall be exposed to the room air. The exterior wall used to meet the R-value in parentheses cannot also be used to meet the thermal mass requirement.

<sup>3</sup> For addition and alteration compliance only; dual glazed greenhouse windows and dual glazed skylights are assumed to meet this U-Factor.

<sup>4</sup> No electric resistance heating may be installed.

<sup>5</sup> New split unit only.

<sup>6</sup> When adding more than 40' of ducting in unconditioned space.