

**No R-30 Insulation Upgrades - No Raised Battens Needed - No Radiant Barrier Required**

## All US Tile products and colors are Title 24 compliant without Upgrades.

New Title 24 requirements will go into effect on January 1, 2010. These new requirements for roofing products deal with the "Heat Island Effect" caused by the sun's energy reflecting off structures and contributing to global warming. Structures will be required to use products that meet Reflectance, Emissivity and SRI values as set by the new standards.

### California Energy Commission Plans for Compliance

**Building Standards:** Building Standards are enforced by local building official

**Compliance Methods:** Buildings must comply with mandatory measures and with either the prescriptive or performance compliance approaches, essentially an energy budget for each building referenced to one of 16 specific climate zones

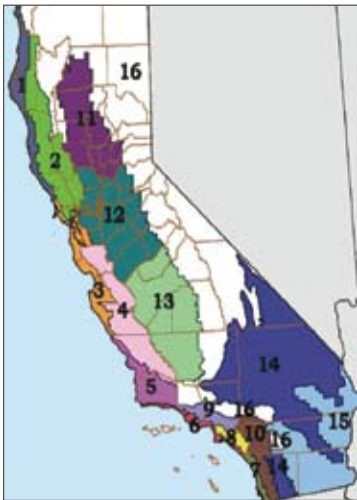
**Mandatory Measures:** All buildings must comply with mandatory measures regardless of compliance path

**Prescriptive Compliance:** Compliance through prescriptive packages which varies with climate zone - no tradeoffs allowed

**Performance Compliance:** Use an approved compliance software to demonstrate compliance for the entire building - allows tradeoffs

**Compliance Options:** Measures that are not required prescriptively but can result in a compliance credit if installed, such as high EER air conditioning and buried ducts

### Title 24 - Low Rise (less than four stories) / Steep Slope (3x12 and over) Requirements



New Construction		
Material Weight per Sq.	More than 5 lbs.	Less than 5 lbs.
Climate Zones	1 - 16	10 - 15
Reflectance	0.15	0.2
Emittance	0.75	0.75
SRI Value	10 or More	16 or More

Re-Roof		
Material Weight per Sq.	More than 5 lbs.	Less than 5 lbs.
Climate Zones	1 - 16	10 - 15
Reflectance	0.15	0.2
Emittance	0.75	0.75
SRI Value	10 or More	16 or More

### Alternative Equivalence to Prescriptive Requirements

1. No ducts in the attic
2. R-30 minimum ceiling insulation
3. R-.85 minimum above roof thermal resistance over a vented attic
4. Ducts sealed and tested to altered existing duct requirements
5. Radiant barrier (space sheathing must be removed)
6. In Climate Zones 10, 12 and 13: 1/150 attic ventilation (30% of vents high)

## US Tile — CRRC Cool Roof Ratings

US Tile Color	CRRC Approval #	Reflectivity	Emissivity	SRI
Red	0906-0001	0.42	0.85	46
Mallorca	0906-0002	0.53	0.86	61
Fire Flash	0906-0029	0.30	0.92	33
El Camino	0906-0010	0.33	0.82	32
Old World #1	0906-0030	0.46	0.82	50
Old World #2	0906-0033	0.34	0.86	35
Old World #3	0906-0031	0.33	0.81	32
Palermo	0906-0004	0.31	0.81	29
Madera	0906-0008	0.29	0.86	29
Turino	0906-0013	0.43	0.84	47
Carmel	0906-0012	0.42	0.84	45
Bermuda	0906-0003	0.46	0.78	49
Rustic Carmel	0906-0027	0.31	0.84	31
Rustic Madera	0906-0025	0.25	0.85	23
Tuscany	0906-0028	0.23	0.85	20
Newport	0906-0032	0.19	0.84	15
Rustic Palermo	0906-0034	0.24	0.85	22
Rustic Newport	0906-0026	0.22	0.86	20

### ClayLite®/ClayMax®

US Tile Color	CRRC Approval #	Reflectivity	Emissivity	SRI
Terra Cotta	0906-0001	0.42	0.85	46
Viejo	0906-0011	0.33	0.78	31
Corona De Oro	0906-0003	0.51	0.78	56
Chaparral	0906-0016	0.35	0.77	33
Merlot	0906-0005	0.25	0.77	19

### ProSlate™/ProShake®

US Tile Color	CRRC Approval #	Reflectivity	Emissivity	SRI
ProSlate Light Gray	0906-0009	0.31	0.90	33
ProSlate Dark Gray	0906-0007	0.30	0.90	32
ProSlate Green	0906-0017	0.27	0.90	28
ProSlate Charcoal	0906-0015	0.21	0.88	19
ProShake Aged Cedar	0906-0006	0.20	0.88	18
ProShake Dark Cedar	0906-0014	0.16	0.86	12
ProShake Madera	0906-0019	0.25	0.89	25
ProShake Evergreen	0906-0017	0.26	0.89	26
ProShake Storm Gray	0906-0018	0.26	0.90	27

### Cielo™

US Tile Color	CRRC Approval #	Reflectivity	Emissivity	SRI
Sangria	0906-0024	0.37	0.79	37
Fuego	0906-0020	0.40	0.80	41
Anejo	0906-0022	0.60	0.78	69
Tierra	0906-0021	0.29	0.78	25
Canela	0906-0023	0.24	0.79	19