

California Title 24 Part 6

Sell Sheet

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CALIFORNIA TITLE 24

Learn about
Energy

California Title 24, Part 6

is legislation in California that sets an energy budget for residential and non-residential buildings. Compliance for qualifying buildings is mandatory.

Title 24 is intended to maximize energy efficiency by regulating many aspects of building construction. The Title 24 Energy Budget is set for residential and non-residential buildings. It varies by climate zone (there are 16 in California) and is defined in Kbtu/sq foot per year.

Compliance can be complicated, so the information on the reverse side is meant to help you understand some basic information and how GAF Materials Corporation roofing products can help you comply.

There are multiple compliance methods. One of them, the envelope compliance method, requires the use of cool roof membranes. For low-slope buildings, a cool roof must have a minimum 3-year aged reflectivity value of 0.55 with a minimum emissivity value of 0.75 or a minimum aged solar reflectance index (SRI) of 64 to be compliant.

In addition, increasing roofing insulation R-value with EnergyGuard™ Insulation products will also help you achieve compliance. GardenScapes™ vegetated roofing systems are also compliant since the California Energy Commission considers vegetated roofs as a roof with thermal mass on it.

Effective 1/1/2010: Title 24 guidelines will also apply to steep-slope products.

Non-residential, steep-sloped roofs with roofing products < 5 lbs. per square foot (asphalt shingles) shall have a minimum 3-year aged reflectivity value of 0.20 and a minimum emissivity value of 0.75, or a minimum aged solar reflectance index (SRI) of 16.

Steep-sloped roofs with roofing products ≥ 5 lbs. per square foot (TruSlate™ Genuine Slate Roofing) shall have a minimum 3-year aged reflectivity value of 0.15 and a minimum emissivity value of 0.75, or a minimum aged solar reflectance index (SRI) of 10.



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Manufacturers are required to submit samples to certified labs to be measured. The emissivity and reflectivity values are measured using ASTM standards.

The results are reported to CRRC (Cool Roof Rating Council). Samples are sent to the CRRC-approved test farm for three years in order to evaluate aged results which will eventually be on the CRRC website together with the initial results. Note: CRRC is an independent and non-biased organization that has established a system for providing building code bodies, energy service providers, architects, specifiers, property owners, and community planners with accurate data on reflective roof surfaces. This information helps to improve the energy efficiency of buildings, while positively impacting our environment.

The chart below lists Title 24 compliant GAF products for both low-slope and steep-slope roofing.

Model	Initial Reflectivity	Initial Emissivity	3 Yr. Reflectivity	3 Yr. Emissivity	Aged SRI Index	CRRC PRODUCT ID#
Ruberoid® EnergyCap™ 30 FR SBS Membrane (white)	0.80	0.84	0.63	0.84	75	0676-0017
GAFGLAS® EnergyCap™ BUR Mineral Surfaced Cap Sheet (white)	0.80	0.90	0.63	0.87	76	0676-0021
Ruberoid® EnergyCap™ Torch Plus FR (white)	0.80	0.84	0.62	0.84	73	0676-0019
Ruberoid® EnergyCap™ SBS Heat-Weld Plus FR (white)	0.75	0.82	0.59*	Pending	68	0676-0026
Ruberoid® EnergyCap™ Torch Granule FR (white)	0.84	0.81	0.70	0.82	84	0676-0025
TOPCOAT® Surface Seal SB (white)	0.84	0.90	0.59	0.87	71	0676-0007
TOPCOAT® Surface Seal SB over APP Smooth (white)	0.84	0.90	0.61	0.78	73	0676-0007 (inc.)
TOPCOAT® Surface Seal SB over APP Granule (white)	0.84	0.90	0.54	0.87	64	0676-0007 (inc.)
TOPCOAT® Elastomeric Roofing Membrane (white)	0.85	0.90	0.68	0.88	83	0676-0006
Timberline® Prestique® 40 Cool Barkwood	0.27	0.92	0.26	0.81	28	0676-0041
Timberline® Prestique® 40 Cool Weathered Wood	0.26	0.92	0.25	Pending	26	0676-0042
Timberline® Prestique® 40 Cool Antique Slate	0.27	0.92	0.26	0.81	28	0676-0043
Royal Sovereign® Shingles (white)	0.27	0.91	0.29	Pending	31	0676-0033
Sentinel® Shingles (white)	0.27	0.91	0.29	Pending	31	0676-0035
Timberline® Prestique® 30 Shingles (white)	0.26	0.85	0.29	Pending	28	0676-0030
Timberline® Prestique® 40 Shingles (white)	0.26	0.85	0.29	Pending	28	0676-0031
Timberline® Prestique® Lifetime Shingles (white)	0.26	0.85	0.29	Pending	28	0676-0032
Timberline® Cool Series - Cool Weathered Wood	0.26	0.92	0.25	Pending	26	0676-0042
Timberline® Cool Series - Cool Antique Slate	0.27	0.92	0.26	0.81	28	0676-0043
Timberline® Cool Series - Cool Barkwood	0.27	0.92	0.26	0.81	28	0676-0041
Timberline® Cool Series - Cool White	0.26	0.85	0.29	Pending	28	0676-0031
EverGuard® TPO FB Ultra (white)	0.76	0.90	0.68	0.83	83	0676-0027
EverGuard® TPO FB Ultra (tan)	0.65	0.90	0.59	0.84	71	0676-0028
EverGuard® PVC (white)	0.87	0.95	0.61	0.86	75	0676-0040
EverGuard® EGFB (white)	0.85	0.86	0.62	0.84	74	0676-0004
EverGuard® TPO (white)	0.76	0.90	0.68	0.83	83	0676-0001
EverGuard® TPO (tan)	0.65	0.90	0.59	0.84	71	0676-0002
EverGuard® Freedom™ TPO (white)	0.76	0.90	0.68	0.83	83	0676-0013
EverGuard® Freedom™ TPO (white)	0.65	0.90	0.59	0.84	71	0676-0037
EverGuard® Energy Tan TPO	0.72	0.89	0.56*	Pending	66	0676-0039
EverGuard® Energy Gray TPO	0.72	0.87	0.56*	Pending	66	0676-0045

*Calculated value per Title 24 requirements.

Aged SRI (Title 24) is calculated using Aged Reflectivity and Initial Emissivity. ENERGY STAR® is a voluntary program.

To find out more about ENERGY STAR® requirements, visit: http://www.energystar.gov/index.cfm?c=roof_prods.pr_crit_roof_products

To find out more about CRRC (Cool Roof Rating Council), visit: <http://www.coolroofs.org>

This is a partial list of products. To find the current list of products, contact GAF Technical Services at 1-800-766-3411

or visit: http://downloads.energystar.gov/bi/qpllist/roofs_prod_list.pdf