Q. How do Duration^o Premium **Cool shingles help meet Title 24** standards?

A. New Owens Corning *Duration* Premium Cool shingles with SureNail® Technology meet 2009 California Title 24, Part 6, requirements, which call for a Cool Roof or equivalent improvement. They also surpass the 20% reflectance requirement. On top of that, they:

- Help lower energy bills by keeping the roof cooler**—which also reduces wear and tear on the air conditioning system
- Can reduce environmental impact—less energy needed to cool a home means less energy consumption, decreasing CO₂ emissions
- Extend the life of the roof—thanks to solarreflecting granules that reduce shingle temperature and subsequently slow asphalt aging
- Feature supersealing action, a wider nailing area and extra adhesive power, like all *Duration* Series shingles with SureNail Technology
- Include a Limited Lifetime Warrantv* and 130-MPH Wind Resistance Limited Warranty*
- Meet initial solar reflectance requirements of .25 for ENERGY STAR® rating
- Are rated by the Cool Roof Rating Council (CRRC)



TOP TIP

For more information on *Duration* Premium Cool shingles, visit www.roofing.owenscorning.com

Show homeowners the light.

Duration Premium Cool shingles feature unique lighter colors with a three-dimensional look for maximum curb appeal.



Harbor Foo



Frosted Oak



Sage



Call your Area Sales Manager

or **1-800-GET-PINK**° today for more details.



OWENS CORNING ROOFING AND ASPHALT, LLC

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e roor surface temperature reduction based on 1998 NIST study, Analytical Study of Repical roof to a Cool Roof (solar reflectance 0.10 to 0.25) in most climates.

STAR and the ENERGY STAP most

ENERGY STAR and the ENERGY STAR mark are registered trademarks of the U.S. Environmental Protection Agency SureNail Technology Patents Pending.



Get ready for Title 24, Part 6



Be prepared with our new Duration Premium Cool shingles

Changes in the role roofs play in meeting the state of California's energy requirements are coming—and Owens Corning wants to make sure you're not left out of the loop.

Today's consumers are demanding greener roofing products. In August 2009, Title 24, Part 6—California's Building Energy Efficiency Standard—will be updated to help make buildings and homes more energy efficient. In addition to commercial structures, Title 24, Part 6, will now call for a "Cool Roof" on residential structures and steep-slope roofs. An easy way to meet the new regulation is to install shingles that feature reflective granules—such as our Duration® Premium Cool shingles.

> Duration Premium Cool shingles are unique in color and have highly reflective granules. These granules bounce back the sun's rays. The result is cooler roof temperatures. For homeowners, this means less wear and tear on air conditioning systems and more energy savings. For you, it means referrals from satisfied customers.

> > Learn more about Title 24 inside...

Because Owens Corning is dedicated to the success of your business, we're arming you with the information you need to understand when and how to meet Title 24. Part 6.

- So your business can continue uninterrupted
- So you're not caught unprepared when homeowners ask questions
- So you can speak with confidence about the solution you can offer—longer lasting, more durable Owens Corning *Duration* Premium Cool shingles

Nobody expects you to know the ins and outs of Title 24, Part 6, overnight, but homeowners will turn to you for your expertise. Don't worry—we've created a beauty book designed specifically to both showcase our *Duration* Premium Cool shingles and help educate homeowners about Cool Roofs.

TOP TIP

The *Duration* Premium Cool Roof beauty book (request Pub. No. 10010675) is a great resource for educating homeowners on how a Cool Roof works. It shows how they can meet Title 24, Part 6, requirements and have a durable, stylish roof at the same time.

Where to begin.

Before you can explain Title 24, Part 6, to homeowners, you must first have a firm grasp on it yourself. Below are answers to some of the most frequently asked questions.

Q. What exactly is Title 24, Part 6?

A. Title 24, Part 6, is California's Building Energy Efficiency Standard. Its purpose is to help reduce peak energy consumption, particularly the kind that contributes to rolling blackouts.

Starting August 2009, both residential and nonresidential buildings with steep-slope roofs are required to meet Title 24, Part 6, standards.

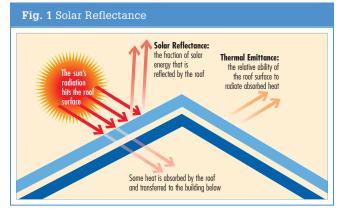
Title 24, Part 6, is especially relevant to the roofing industry because its requirements pertain directly to a specific type of roof assembly typically referred to as a Cool Roof.

TOP TIP

For full details about Title 24, Part 6, visit www.energy.ca.gov/title24.

Q. What is a Cool Roof and how does it work?

A. Cool Roofs reduce energy by using shingles with solar-reflecting granules that keep roofs cooler than conventional shingles. This allows them to reflect the sun's heat, thereby reducing the heat transferred into the structure below (see Fig. 1).



Cool Roof Rating Council (coolroofs.org)

Duration Premium Cool shingles feature solar-reflecting granules that help keep roofs cool¹¹ for a more comfortable living space below.

Q. What are solar reflectance and thermal emittance?

A. Solar reflectance and thermal emittance are radiative properties of the exterior surface of the roof.

Simply put, solar reflectance is the fraction of solar energy that is reflected away by the shingles. Thermal emittance is an inherent material property that has the ability to radiate away energy that has been absorbed.

TOP TIP

In Part 6 of Title 24, shingles for a Cool Roof must have a minimum aged solar reflectance (SR) of 0.20 (20%) and thermal emittance (TE) of 0.75 (75%).

SR=**20%** TE=**75%**

Q. Do solar reflectance and thermal emittance change over time?

A. Radiative properties vary as surface conditions change. As the shingles weather or pick up surface contaminants, the solar reflectance and thermal emittance values change.

Q. Are Cool Roofs mandatory?

A. Not every climate zone in California must meet the requirements for a Cool Roof. For the zones that do, there are three ways to meet Title 24, Part 6. standards:

1. Standard Prescriptive approach

With the Standard Prescriptive approach, Cool Roofs are a default requirement.

Meaning, once you've installed *Duration*Premium Cool shingles—designed specifically for Cool Roofs—the home automatically meets requirements.

2. Prescriptive Trade-Off approach

You can elect to install a non-Cool Roof if enough attic insulation is added to meet or beat the prescribed energy budget.

However, the energy performance of the substituted component must be assessed and documented.

3. Whole Building approach

This approach provides the greatest flexibility, but requires the most documentation.
Using this approach, a detailed calculation must be performed using California Energy Commission-approved software. The energy efficiency of the entire building is calculated, including the desired components, and compared to the prescribed energy budget.

Just as before, the new design must meet or beat the prescribed energy budget. Energy consultants are often utilized in this approach due to the complexity.

Q. What climate zones need a Cool Roof?

A. Residential Steep-Slope New Construction or Re-roof: Climate Zones 10–15. (See Fig. 2)

Nonresidential Steep-Slope New Construction or Re-roof: Climate Zones 2–16. (See Fig. 2)



Courtesy of the California Energy Commission (CEC)

TOP TIP

If you choose to use the Trade-Off approach, you can meet requirements a couple of ways:

- Add Owens Corning PINK FIBERGLAS™ Insulation to the attic. An attic with a minimum R-value of R-30 is one of the options to help meet Title 24, Part 6.
- 2. Install Owens Corning VentSure® vents with a 1:150 ratio. A 1:150 ratio (1 sq. ft. of attic ventilation per 150 sq. ft. of attic floor space) is another way to meet Title 24, Part 6, in Climate Zones 10. 12 and 13.

For a full list of products that help meet Title 24, Part 6, visit www.energy.ca.gov/title24.

Q. Do Cool Roofs help the environment?

A. Cool Roofs result in lower carbon dioxide emissions and help reduce the urban and suburban heat island effect, which, in turn, reduces smog:

Duration Premium Cool shingles meet the initial ENERGY STAR® certification requirements.

pink is green

Ways to mee

Title 24

Insulation

Ventilation

TOP TIP

Homeowners may qualify for rebates from PG&E (Pacific Gas & Electric) or Southern California Edison (SCE). Visit www.pge.com and www.sce.com for more information.

PG&E Web site
pge.com
SCE Web site
sce.com