



Cool Roof Requirements

Cool roofs are highly reflective, highly emissive roofing materials that stay 50 to 60 degrees F cooler than a normal roof under a hot summer sun. Cool roofs can cut building owners' energy costs. Because cool roofs gain less heat than normal roofs, they reduce the need for air conditioning making buildings more comfortable to the people inside.

Cool roofs have other benefits, too. For building owners they can cut maintenance costs and increase the life expectancy of the roof. And for society in general, cool roofs can even help to reduce the urban heat island effect that makes our cities hotter and produces unhealthy air.

Because cool roofs save both money and energy, in October 2005 they became part of the prescriptive requirements of California's energy code, the Title 24 Building Energy Efficiency Standards. Most cool roof materials for low-sloped roofs are white or another light color. Because steep-sloped roofs are often visible from the ground, however, roofing material manufacturers have developed popular roof colors other than white that will still reflect or emit the sun's energy away from the building.

As of January 1, 2010, the California Energy Commission's updated Title-24 Building Energy Efficiency Standards for residential and non-residential roofing are now in force, otherwise known as "Cool-Roof". With the old 2005 Title-24 energy code a residential cool roof was an optional energy efficiency measure, however on January 1, 2010, cool roofs are now required for most residential buildings in many of California's climate zones. Cool roof standards are designed to reduce air conditioner demand, and save money.

Cool roof requirements also apply to re-roofs. The cool roof requirements for re-roofs are the same as for new construction however there are exceptions which can be used to offset the cool roof requirement, they are triggered when either 50 percent of the roof area or more than 1,000 sq. ft., whichever is less is replaced. If one of the exceptions below applies then the cool roof requirements are not triggered:

Exceptions:

1. Buildings with no ducts in the attic, or
2. A radiant barrier is installed in the attic meeting the radiant barrier requirements.
3. Buildings with at least R-30 ceiling insulation or,
4. Existing ducts in the attic are insulated and sealed and HERS tested.
5. The attic area provides 1 sq. ft. of free ventilation area of attic ventilation for every 150 sq. ft. of attic floor area, and where at least 30 percent of the free ventilation area is within two feet vertical distance of the roof ridge.

If you need more information about cool roofs for your project in Montclair, call the Building Division at (909) 625-9477.

