Development of Cool Colored Roofing Materials
Project Advisory Committee Meeting
Collaboration of Ferro, Industrial Partners, LBNL & ORNL
Sponsored by: California Energy Commission
March 03, 2005

Reflective Pigments Designed to Keep Things COOLER

Typical Applications
- Cool Roofing
- Building Exteriors
- Automotive
- Plastic substrates
- Coil Coatings & Extrusions
What's been the response to "Cool Roofing" in the Marketplace?
Cool Colors™ & Eclipse®
IR Heat & Energy Saving Pigments

March 2003 Google Search

Google

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Cool Roof

Web · Images · Groups · Directory · News

Searched the web for Cool Roof.

Results 1 - 10 of about 718,000. Search took 0.07 seconds.

Category: Business > Industries > ... > Membrane Roofing

Cool Savings Program - Cool Roofs

... As of March 1, 2003, the Cool Savings with Cool Roofs Program is no longer accepting new applications for cool roof rebates. ... Links to Cool Roof Information. ...

www.consumerenergycenter.org/coolroof/ - 9k - Cached - Similar pages

Sponsored Links

Cool Roof Installations
California & Nevada Roofing Repairs, Maintenance & Cool Roofs www.dinyari.com
October 2004 Google Search

Over 1 M Hits

Cool Roof Rating Council
The Cool Roof Rating Council provides radiative property data on roof surfaces to improve the energy efficiency of buildings while positively impacting the ...
www.coolroofs.org/ - 9k - Cached - Similar pages

Cool Roofing Materials Data Base
Cool Roofing Materials Database. Lawrence Berkeley National Laboratory. Environmental Energy Technologies Division. Energy-efficient ...
eetd.lbl.gov/coolroof/ - 5k - Cached - Similar pages

Sponsored Links

Roof Coatings, Elastic.
Roofs, Walls, Decks Stops Leak Fast Rubber Paint and Acrylic Premium.
http://www.amesresearch.com

Cool Roof Installations
California & Nevada Roofing Repairs, Maintenance & Cool Roofs
Less than 6 months later – 2.4 M Hits

Google

Search results for Cool Roof

Product search results for Cool Roof

Photo: Cool Tin Roof - $20.00 - ShutterPoint Photography
Custom UVS Heat Shield - $49.95 - Autogeek.net
Power Cool Plus - Electric Roof Mount Attic Ventilator - $150.00 - michaelholigan

Cool Roof Rating Council
The Cool Roof Rating Council provides radiative property data on roof surfaces to improve the energy efficiency of buildings while positively impacting the...

www.coolroofs.org/ - 9k - Feb 23, 2005 - Cached - Similar pages

Cool Roofing Materials Data Base

February, 2005
History and Development

• Work began in 1999
• Immediate interest from metal roofing industry
• Ferro approached ORNL & LBNL with concept
• PAC formation
• Testing of Cool-Colored metal roofing products
• Promotion into other market segments
Areas of interest

- Metal Roofs and Sidewalls (Coil Coatings)
- EPDM, Single Ply, and Tile Roofing
- Asphalt Shingles (Largest Roofing Market sector)
- Decking (Wood, Concrete and Plastic Composite)
- Concrete (Roof tile, Swimming Pool Deck, Flat Tile)
- Vinyl Siding for homes
- Window frames (profiles)
- Automotive parts
- Cedar Shakes
What are some positive aspects of the technology?
Higher Reflectance in the IR Region
Provides Lower Surface & Absorption Temps

TESTED PER ASTM D4803-97

Temperature probe on back of metal panel showing heat difference going into building.

Over 47F Cooler

significant heat reflected from the surface of the “Cool Colors & Eclipse” Brown Coating
Cool Colors & Eclipse
IR Heat & Energy Saving Pigments

Durability – Fade Resistance
Xenon-arc exposure for 5000 hours

![Graph showing Durability and Fade Resistance for different pigments.](image)
What Needs to be done

- Large Scale demonstrations showing $ and KWH savings
- Software to estimate the Cooling Energy Savings
- Value of technology to lessen Peak Energy Demand
- Monitor Color and Reflectivity change over time
- Work with labs on reflectivity improvement
- Monitor thermal performance over time
- Develop predictive software for Cool Coating Design