



SMART Brief

T E C H N I C A L B U L L E T I N

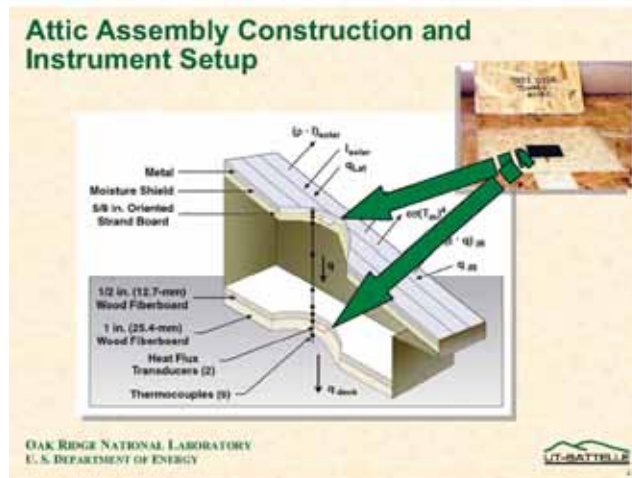
DATE: 8 January 2009 **No:** SB-16-010809-Rev-111609
TO: Contractors & Distributors **Page** 1 of 2
FROM: Metro Technical Services Division
SUBJECT: METRO ABOVE SHEATHING VENTILATION (ASV) BENEFITS

ASV- Above Sheathing Ventilation

Based on the original 12-month long, full-scale, outdoor test performed at Oak Ridge National Laboratory (ORNL) and in conjunction with the Department of Energy (DOE) at Knoxville TN, during 2005, the attached pages have been excerpted from the overall report. "The Effects of Infrared-Blocking Pigments and Deck Venting on Stone-Coated Metal Residential Roofs", by, William A. Miller PhD, dated January 2006

Background

Stone-Coated steel roofs manufactured by Metro Roof Products due to their design and install process automatically provide an Above Sheathing Ventilation (ASV) space directly above the solid or spaced sheathing on residential or light commercial construction. It's this air-space that has been proven to provide excellent insulation benefits to the structure and based on the ORNL ASV Testing (referenced above). Roof systems like Metro's with an 'Above Sheathing Ventilated' space (ASV) provide energy efficiency equal to a 25% total solar reflectance baseline asphalt shingle.



Conclusion

This means consumers and builders alike can now use a roof system (Metro Shake, Tile or Roman Tile profiles) that incorporates a 3/4" air-space above the sheathed roof deck, as a truly energy efficient roof.

Refer to: <http://www.energy.ca.gov/2008publications/CEC-400-2008-001/CEC-400-2008-001-CMF.PDF>
(For more detail download the SMART-Brief # 010809-Appendix)

Metro Roof Products SMARTBrief Technical Bulletins are for use by all Metro Roof Products customers. Each SMARTBrief is coded with a reference number and can be used to support various trade practices that are acceptable to, and have met Metro Roof Products quality standards in effect at the time. Metro Roof Products reserves the right to amend or update these SMARTBrief Technical Bulletins at any time.

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California Building Climate Zones



Legend

| Climate Zones | |
|---------------|----|
| 1 | 9 |
| 2 | 10 |
| 3 | 11 |
| 4 | 12 |
| 5 | 13 |
| 6 | 14 |
| 7 | 15 |
| 8 | 16 |

Other Features

- S City
- R Roads
- County Line
- Water Body

Building Climate Zone Description

"Building Climate Zones" or California Climate Zone Descriptions for New Buildings California is divided into 16 climatic boundaries or climate zones, which is incorporated into the Energy Efficiency Standards (Energy Code). Each Climate zone has a unique climatic condition that dictates which minimum efficiency requirements are needed for that specific climate zone. For an example, Climate zone 12 is bounded by other surrounding climate zones such as 11, 16, 13, 4, 3, and 2 and each with its unique weather characteristics. In Climate Zone 12 it is required for construction to install an R-38 in the ceilings, R-19 in the walls and high efficiency glass. Other climate zones may use less and have other efficiency requirements.

The Climate Zone Description Manual was developed from weather tapes information, which are modeled in approved simulation program to include modeling of new commercial and residential buildings. Such simulations established a base line to be cost effective with energy code. Therefore The Climate Zone Description Manual describes each climate zone boundaries and list most California cities with its associated climate zone number. For Example; Sacramento is Climate Zone 12, San Francisco is Climate Zone 3 and Lake Tahoe is Climate Zone 16. The climate zone must be first determined before any new or renovation construction is began in order to ensure the proper efficiency energy features are used for that specific Climate Zone.