

# WHY METRO?



## Stone-Coated Steel Benefits

**STONE-COATED STEEL**— A roof for a lifetime without the worries!. Proven internationally in virtually all climates, stone-coated steel from Metro is the right choice. With four (4) unique and attractive profiles to choose from—

**MetroSHAKE®** simulates the deep wood grain of a shake roof without the fire danger.

**MetroROMAN®** Tile creates the look of two (2) piece tile roofing without the excess weight.

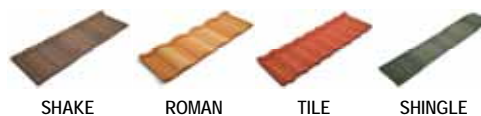
**MetroTILE®** in a low-profile design to suit any architecture.

**MetroSHINGLE®** a sleek cleanly designed shingle panel that blends with every home

**METRO Stone-Coated Steel Roofs** — Are extremely lightweight 150lbs/Sq., UL-Listed, carrying a Class-4 UL Impact Rating—the highest hail rating available for roofing products. Metro's limited warranty provides coverage against hail penetrating the steel panel, 120-mph winds for 50-years against corrosion,

*- Smart protection from a Smart Roof!*

- 19-Colors to choose from
- Oil-Free 18-Grade Fine natural granite stone chip
- Lightweight 1.5lbs/Sq ft.
- Batten-less or batten install
- Widest range of stone-coated accessories only from Metro
- ASV-Above Sheathing Ventilation due to 3/4" air space beneath panel



Smart Roofs for Smart People®

Metro Roof Products 3093 'A' Industry St., Oceanside CA 92054,  
PH (760) 435-9842 FX (760) 435-9412 www.metroroofs.com

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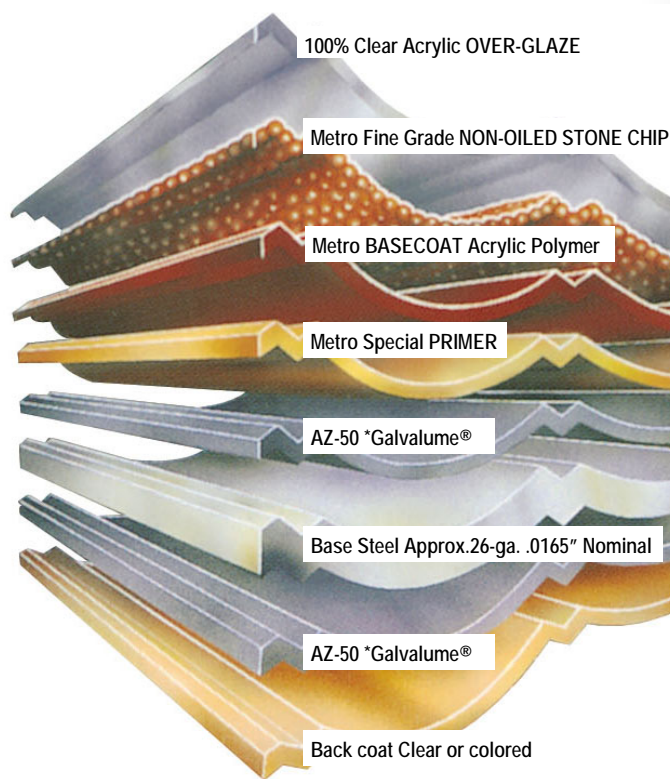
## STEEL

**STEEL isn't just steel anymore** — Today, steel is the most recycled product on earth and Metro suppliers use state-of-the-art production facilities to ensure that high quality, long-life steel goes into every roof we sell.

**METRO Steel** — We use the performance proven and highly corrosion-resistant AZ-50 hot-dipped Aluminum—Zinc alloy coated (top & bottom) steel. This type of coating is traditionally branded as \*Galvalume® steel, and is specially designed for exterior construction where the best corrosion resistance is demanded.

**THE Metro difference** — After our steel supplier applies the AZ-50 coating, Metro Steel undergoes additional treatment, where they apply a proprietary designed primer, on the top-side of the steel coil. It is this unique primer that enhances and promotes long-life adhesion of Metro's specially formulated acrylic polymer basecoat that is applied at our factory during the panels coating process, where finely graded & non-oiled stone-chip is applied to the steel pressings.

The result is a long-life roof panel in either Shingle, Shake or Tile designs to suit any architecture, that's warranted for 120-mph winds, Class-4 Hail resistance and for 50-years against corrosion.



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\* Galvalume® is a registered trademark of BIEC International.



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## STONE CHIP

**STONE coated steel roofing**— Has been protecting structures around the world for nearly 50-years. With a heart of steel and a solid coating of stone chip it can withstand virtually whatever nature wants to throw at it.

**METRO Stone** — Is specially graded, natural granite in an extremely fine grade, angular faceted chip to increase coating coverage per-square inch. If we can apply more granules per-square inch to each panel, the longer the life the coating will be.

**THE Metro difference** — We didn't stop at a fine grade of chip, we pursued experimentation with our supplier to develop an industry first — a stone chip that's **OIL-FREE**. A critical element when using water miscible acrylic-polymer technology. It is this unique OIL-FREE condition of the Metro fine 18-grade stone chip that separates us from the competition and ensures the best adhesion of stone chip coated panels on the market.

The result is a long-life roof, in either Shingle, Shake or Tile designs to suit any architecture, that's warranted for 120-mph winds, Class-4 Hail resistance and for 50-years against corrosion.

**METRO** —  
(Approx. 18-grade size granules in a special NON-OILED condition)

**RESULT**  
Tight stone-coat matrix with very small crevices between granules that protect basecoat from harmful UV rays.



**COMPETITION** —  
(Approx. 14-grade size Granules coated with MINERAL OIL)

**RESULT**  
Oil & water based acrylic don't mix. Larger crevices between granules that allow harmful UV to degrade the basecoat adhesive.



*Stone-Chip images were magnified 100X using a "Wild-Heerbugg" Microscope — Model M420 with a light source of "Introlux 6000".*



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*References to stone-chip grade are approximate and merely indicate an average range of chip grading size.*

*\* Metro Stone Chip is produced by ISP in a dry Non-OILED condition.*



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## SMART Acc.

**SMART Roofs for Smart People™** — Metro offers a full line of SMART accessories that are easy to install yet functional, blending perfectly with a Metro roof. Whether it's the easy to install and fully integrated SMART-Vent, ventilator panel or the unique SMART-Jacks & SMART-Sleeves for roof-pipe penetrations, all are stone-coated and add up to the best accessory line in the business.

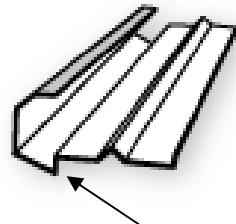


**METRO Smart Design** — The team behind the SMART accessories has a wealth of roofing and engineering experience and its this dedication to making products that work, that drives the innovative development. Metro's SMART design can also be found on such standard items as its Shingle & Shake RAKE Channel's that incorporate the



installer friendly 'Locator-Lip'. This 'locking-lip' design is also on the new series of Panel Riser metals (Stone-Coated) that is most noticeable on Metro Roman Tile installs at the fascia.

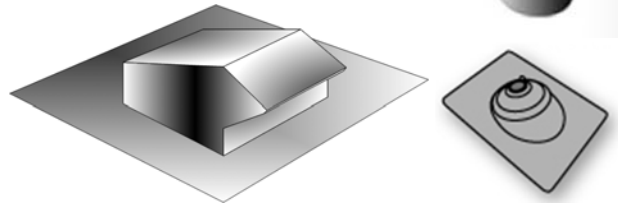
### Rake Channel



'LOCATOR-LIP' locking point



**THE Metro difference** — We continue to develop new & exciting accessory items to work perfectly with Metro roofs. The result is a long-life roof, in either Shingle, Shake or Tile designs to suit any architecture, that carries a 50-year limited corrosion warranty to protect your investment.



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## SNOW & ICE

**STONE Coated Steel Roofing**— Has been protecting structures around the world for over 50-years. With a heart of steel and attractive stone coating it can withstand virtually whatever nature has to offer including cold climates.

**THE METRO Panel** — Design works perfectly in severe cold-climates where ice-damming is a problem, the shape of Metro-SHAKE®, Metro-TILE® & Metro-ROMAN-TILE® provide an “Above Sheathing Ventilated” (ASV) space across the roof deck and its this horizontal and vertical air-space blanket that has proven to provide exceptional cold climate performance especially in areas where high snowfall and ice damming is a problem. Calgary, Alberta, Canada is a classic example due to the seasonal Chinook winds that can create 60-degree + temperature swings within a 24-hr period. Thousands of homes in some of America’s coldest climates such as Utah, Colorado, Minnesota, Wisconsin & the Dakota states enjoy excellent cold weather performance because of the Metro panel design and the ASV that limits icicles and ice damming as shown above.



**THE Metro Difference** — A long-life roof, in either a Shingle, Shake or Tile profile to suit any architecture in virtually any climate, warranted for 120-mph winds, Class-4 Hail resistance, 50-years against corrosion, all while protecting your home and standing up to mother nature in some of the worst snow & ice climates in north America, confirming your Metro roof is truly a - *Smart Roof for Smart People*.

*Ensure your contractor is reputable and is familiar with cold climate roof design, intake & exhaust ventilation, and in severe cases, use of counter-batten & panel-batten grid systems to limit ice-damming and other cold-climate related issues.*

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## BATTEN-LESS

**BATTEN-LESS Panels**— Metro offers its Shake & Tile profiles in an innovative design, allowing them to exceed the wind-uplift strength of panels installed with battens. The uniqueness is in the panels back-flange, angled nose sections and twice as many fasteners in an ‘X’ pattern as a battened panel. It’s these Metro Batten-Less attributes that in December of 2005 during <sup>(1)</sup>Wind-Uplift testing at UL in Chicago proved that batten-less panels can out-perform Metro’s battened systems for uplift resistance. In one test UL’s Uplift test chamber was pushed to an all time high of 307-psf uplift force. The test report reads;

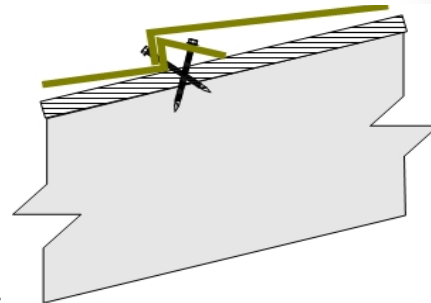
*“Prior to and during the attainment of the 307-psf pressure, there was no sign of fastener pull-out or damage to any of the panels. The roofing system did not fail, the maximum capacity of the apparatus was reached.”*

The most stringent wind-uplift region of the US is in Dade County FL and their Product Control Approval known as an NOA defines the Maximum Design Uplift Pressure a product can withstand after applying the standard safety factor of 2 to the tested pressures. <sup>(2)</sup>**153.5-psf** is Metro’s Dade NOA pressure the **highest of any stone-coated steel panel on the market today**. Its this sort of performance that clearly answers ‘Why Metro?’

METRO Batten-Less ‘X’ Pattern

**BATTEN-LESS Difference** — Homeowners receive an immediate benefit by going ‘Batten-Less’ - making the Metro panels easy to walk on and earthquake strong due to their interlocking design and direct to the roof deck installation.

The unique double fastening ‘X’ pattern of fasteners is what allows the **Metro Batten-Less panel** to be currently, the <sup>(3)</sup>**highest uplift rated stone-coated steel roof panel in the industry**. Perfect for the extreme high-wind coastal requirements of Florida.



*‘X’ Pattern fastening of Metro Batten-Less panels installed with Ring Shank nails. 2-3/8” X .131” dia.*



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<sup>1</sup> Metro High Wind Uplift tests 07/26/06, UL Proj.# 06CA38220 using UL-1897 & 580 test formats.

<sup>2</sup> Dade Co., Florida NOA # 06-0911.05 Approved 11/09/06.

<sup>3</sup> Based on recent UL tests as of July 2006 (see 1. above)



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## HAIL

**HAIL YES!** — Installing a Metro stone-coated steel roof in any profile (MetroSHAKE®, MetroTILE®, MetroROMAN® or MetroSHINGLE®) gives you the added assurance you are protecting the structure with one of the best possible roof materials warranted & designed to withstand annual hail storms.

**METRO Stone-Coated Steel Roofs** — Are UL-Listed, carrying a Class-4 UL Impact Rating—the highest available for roofing products. Metro's limited warranty provides coverage against hail penetrating the steel panel substrate completely or splits / cracks at the hail-stone impact point.



**THE Metro difference** — Metro panels (MetroSHAKE®, MetroTILE® & MetroROMAN®) interlock left to right and vertically and due to their modular exposed fastener design allow for easy removal and replacement of individual panels within a roof section, making repairs a simple process. This design feature has been an asset in some high wind prone areas where trees have impacted into roof sections and the Metro roof was easily repaired without the need to disrupt entire roof sections. Some insurance companies regionally provide discounts on annual premiums if you install a Class-4 Impact Resistant rated roof, be sure to check with your local insurance broker.

The result is a long-life roof panel in various profiles suitable to virtually any architecture, that's warranted for 120-mph winds, Class-4 Hail resistance and for 50-years against corrosion, - *Smart protection from a Smart Roof!*



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UL-Listed R-19204—TGAM—Impact Resistance Class-4 tested



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## WIND

**High Wind**— Metro roof systems with standard installation are covered under the 120-mph wind warranty. This is enough for most areas of the country but not all. The most stringent uplift pressure for residential roofs is in Dade County FL and is the “150-mph Exp-’C’, Zone-3 ‘Corner’ which requires this section of a roof to withstand <sup>(1)</sup>109.9-psf uplift force.

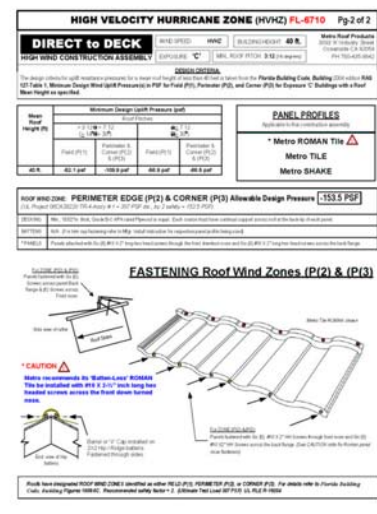
**Metro—Tested to Extremes**—<sup>(2)</sup>Wind-Uplift testing at UL in Chicago proved that Metro batten-less panels can out-perform our battened systems for uplift resistance. In one test UL’s Uplift test chamber was pushed to an all time high of 307-psf uplift force. The test report reads;

*“Prior to and during the attainment of the 307-psf pressure, there was no sign of fastener pull-out or damage to any of the panels. The roofing system did not fail, the maximum capacity of the apparatus was reached.”*

Its this sort of performance that clearly answers ‘**Why Metro?**’

**Metro SMART wind Design-** To support the Metro team of contractors, we now have two (2) options for permit applications in High Wind areas, commonly referred to as HVHZ areas (High Velocity Hurricane Zone). Copies of the Metro’s HVHZ approvals can be found on our website at the following link. (<http://www.metroroofs.com/highwind.html>) . In both approvals Miami-Dade NOA #

06-0911.05 and FL # 6710 the contractor can select either a Batten application or a Direct-to-Deck install. For steep pitched roofs the Batten application allows a grid system for the installers to walk on while the Direct-to-Deck batten-Less method ensures high-wind security using the double ‘X’ pattern of fasteners.



FL- High Wind Design Detail Sheet



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<sup>1</sup> Florida Building Code 2004 Edition, RAS 127-Table 1 Min Design Wind Uplift Pressure P1, P2, & P3. with a Mean roof height-40ft..

<sup>2</sup> Metro High Wind Uplift tests 12/19/05, UL Proj.# 05NK26978 using UL-1897 & 580 test formats.





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## WARRANTY

**Limited 50/25 Warranty**— Metro covers all its stone-coated steel roofs with a full 50-year warranty on the panels against corrosion or manufacturing defects and a 25-year warranty on the surface coating against loss of stone-chip.

**Warranty Pro-Rating**- The 50-year section is NON Pro-rated for the first twenty (20) years and then pro-rates on a straight-line basis over the remaining thirty (30) years. The appearance section is also NON Pro-rated for the first twenty (20) years and then pro-rates on a straight-line basis over the remaining five (5) years. To view a complete copy of the warranty visit the Metro website at the link below [http://www.metroroofs.com/images/smartmail\\_v4.pdf](http://www.metroroofs.com/images/smartmail_v4.pdf).

Explain how Metro stands behind its product.

**Registering & Transferring your Metro Warranty**– We have made it easy to both register and transfer your Metro warranty. Its all on-line at [www.metroroofs.com](http://www.metroroofs.com) or use the link below. [http://www.metroroofs.com/images/smartmail\\_v4.pdf](http://www.metroroofs.com/images/smartmail_v4.pdf). Unlimited Transfers can be performed using the on-line system or if you would rather mail it in we can accept that too.

Either way you're well covered both by a long-life Metro roof and its accompanying limited 50-year warranty.

#### KEY POINTS

- Metro has operated under single family ownership for over 60+ years
- Three factories to service the global market and offset potential supply issues
- Only Stone-Coat supplier to offer Non-Oiled stone chip that enhances adhesion



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Check with your local Metro rep or the Metro website ([www.metroroofs.com](http://www.metroroofs.com)) for the most up-to-date version of the Metro 50-Yr limited warranty.



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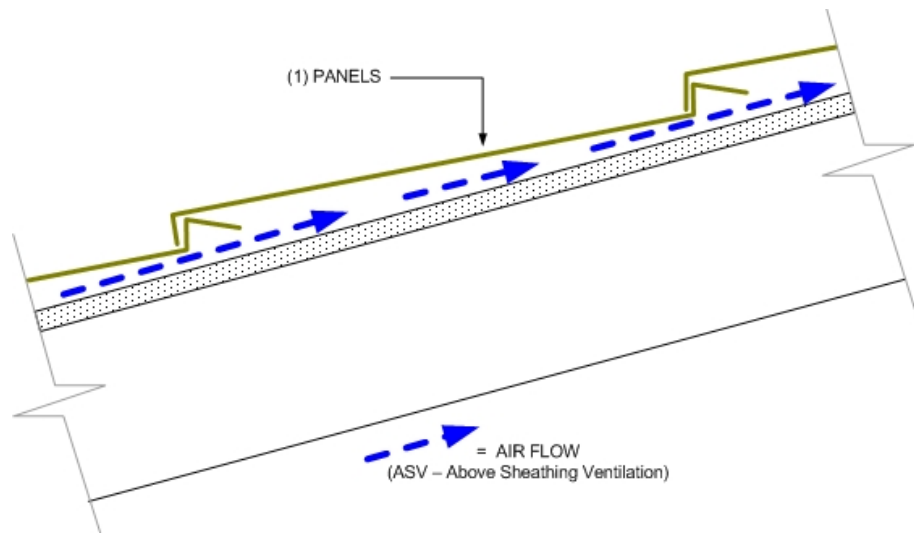
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## SMART-Ventilation ASV



**SMART-Ventilation ASV = Above Sheathing Ventilation** — MetroTILE®, MetroSHAKE®, MetroROMAN® panels meet California's Title-24 Energy Code due to their built-in design that creates an Above Sheathing Ventilated (ASV) space above the spaced or solid sheathed roof deck.

The ORNL (Oakridge National laboratory) recent study in TN, Jan-2012) concluded that Metro panels that create a minimum 3/4-inch (ASV) air space is equivalent to a roof with cool colors (25% solar reflectance), irrelevant of the Metro roof color.



**THE Metro difference** — Contractors can now provide energy savings benefits to their customers simply by installing the Metro panels (Tile, Shake & Roman), creating an ASV configuration.



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Refer to Metro SMART-Brief-Technical Bulletin—024-120425 for more info. Check with your local Metro rep or the Metro website ([www.metroroofs.com](http://www.metroroofs.com)) for the most up-to-date info regarding this energy saving benefit. Refer to: <http://www.metroroofs.com/images/ASV.SolarReflectance.pdf> &/OR <http://www.energy.ca.gov/2008publications/CEC-400-2008-001/CEC-400-2008-001-CMF.PDF>



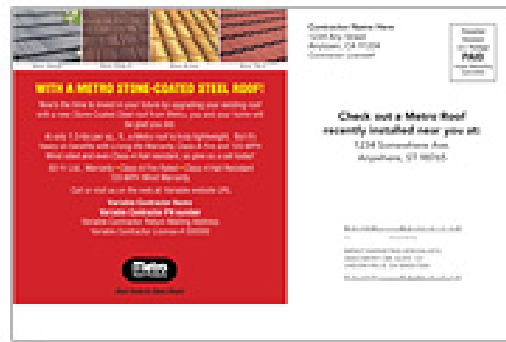
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## SMARTmail Radius Mailer

**SMARTmail Radius Mailer**— Metro offers its contractor's a unique personalized and very targeted lead generation program. It centers around the Metro Mailer (11" Wide X 6" High) shown below.



**THE Metro difference** — Contractors can select the quantity to mail but find 250-pcs is realistic number for local neighborhoods costing about \$250.00 for professionally designed mailers circulated around their recent Metro install. **This is a personalized 4-color JUMBO mailing**, a real bargain and well worth every contractor to add it to their to-do list for every Metro sale they make. The Order Form is on our website <http://www.metroroofs.com/SmartMailer.cfm>. The payment for this mailer is by credit card and the on-line form has all the necessary details to charge the credit card. Sign-up today and become the local Metro SMARTmail expert to separate yourself from the competition.



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