

Thermal Barrier Coating Gets the *Green* Light

Finding a cost-effective thermal barrier that is durable and friendly to the environment may seem like a search for the Holy Grail. But some commercial builders, school districts and property owners have discovered that all good things are possible – if you have the missing ingredient. Exactly what that ingredient is no one will reveal, sorry to say, because it is contained in a proprietary formula developed by a Canadian firm determined to protect its secret.

Fortunately, that hasn't stopped trades people from popping the lid on this product's remarkable results: reduced labor and energy costs; effective prevention of heat loss or gain; green report card unsurpassed in this product group; and ideal for extreme coastal or desert weather conditions. All of which are made possible by Cerylium™, the mystery ingredient in the formulation for Ceramic InsulCoat exterior wall and roof products by Envirocoatings.

"There are secrets that they won't let anyone know," said Bruce Atherton, owner of Arrow Painting Ltd., in Victoria, British Columbia. "But people can see the difference. It doesn't crack or peel, it retains its colors, it has so many advantages to it."

Necessity of a Thermal Barrier

Atherton, a painting contractor for 25 years, knows that a thermal barrier is essential for reducing energy costs for the commercial buildings he services. Often that barrier is created using fiberglass insulation. Yet an even greater degree of protection is possible when an Envirocoatings product is applied to the roof of a building already insulated with fiberglass.

And the improvement can be measured in lower energy costs. "You just put it on your roof. It's great. There's a big difference."

According to Atherton, a helicopter hangar at a local airport, a new apartment complex, and even miles of chicken coops have all benefited from the roof insulation product that can be applied on metal or wood. One key benefit is InsulCoat's ability to expand 160% of the original surface size as weather conditions change, an especially important factor when covering a flat roof. This elastic characteristic prevents the barrier from cracking or peeling. And while the price is higher than the cost of a bucket of paint, it will endure nearly five years longer. "Farmers are painting all the roofs with this product to keep the chickens happy. A happier chicken lays more eggs. It must pay off in the long run."



Keeping warmth in is the goal for cold coastal areas. But InsulCoat is also effective when dealing with the opposite problem – keeping scorching heat at bay. Envirocoatings has passed California Energy Commission's stringent Title 24 testing, otherwise known as the cool roof initiative. The testing included accelerated weathering, tensile strength and flexibility at temperatures as low as 0 °F, as well as breathability tests.

Ceramic InsulCoat Properties

Passing the test was actually a formality: InsulCoat standards had already surpassed state requirements. But the milestone is important, Envirocoatings officials say, because some roofing products now on the market have earned the seal of approval from the state's Cool Roof Rating Council (CRRC). But those same products are not yet Title 24 compliant. Also, in 2006 California tightened its limits on VOC levels. While the change caused problems for various painting manufacturers who were forced to reformulate some products, Ceramic InsulCoat products already met the new standards.

Atherton said he is getting more requests for the products, as business people become more aware of the environmental benefits. In fact, proof that interest in the Green movement is growing can be seen in the advertisements for new commercial projects now circulating in the community. Selling points now include "living Green" and slogans such as, "Green is the color of the money you save" when embracing energy conservation. "It's a step in the right direction. They're educating themselves. It makes it easier for me. I don't have to explain so much," Atherton said.

While the lower toxicity is a boon to many businesses, schools and residential complexes, it is also quality-of-life improvement for contractors like Atherton. The products are 100 percent acrylic waterborne coatings and do not include formaldehyde or other chemicals that may cause cancer. No special ventilation is necessary when using the coatings.

Atherton said the Heritage Foundation in Victoria has also given its nod of approval for the Envirocoatings products because they have helped preserve many historic brick buildings. These buildings typically suffer from surface and mortar erosion and fading color due to heavy annual rainfall. And they lack a thermal barrier. Atherton said the clear InsulCoat is ideal because it "brings out the colors in the bricks, and seals the bricks against any water." Also, if bricks literally have begun to rot, creating an unattractive outer face, the thermal barrier products can be covered with a coat of paint.



According to Dream Home Builder Jody Feyas, EnviroCoatings Ceramic InsulCoat and InsulCoat ROOF products are two products that will revolutionize the building industry.

InsulCoat products are a two-coat system. The first coat dries to the touch in 15-30 minutes. The second coat can be applied two hours later. Other products may require up to 24 hours drying time. The short and simple application process translates into big savings in labor costs. Also, the product can be tinted any color for exterior walls. The roof products, however, are limited to lighter tints, because those colors help reflect light, not absorb heat – a key factor in reducing heat buildup on roofs.

The fading factor is also reduced by InsulCoat, which can maintain a bright red, for example, for 5-7 years. Typical exterior coatings must be repainted every 8 months in Victoria, according to Atherton, who says the quality difference is obvious to local residents. "They look at a job, one house next to another, and it's like night and day. The appearance of it is 10 times better than latex. You can tell it right away."

The environmentally astute products also work well on stucco because they go on thick and permeate surfaces. This has made the product popular in Victoria, as well as in the southwestern United States.

"Our products work just as well at 40 degrees below zero in the Northwest territories of Canada as they do in Phoenix in the middle of the summer," said Roland Langset, CEO and president of Prima Developments Ltd., which owns Envirocoatings. "It's a year-round thermal barrier. It'll keep you warm in the winter and cool in the summer." ■

For more information about Envirocoatings visit www.envirocoatings.com; or E-mail info@envirocoatings.com.