

december 2007

Tek talk
"hot off the roof"

**E·las·tek®**
CERTIFIED COOL ROOF COATINGS

ELASTEK WISHES YOU AND YOURS
THE HAPPIEST HOLIDAYS &
CHEERS FOR THE NEW YEAR!!



Elastek-sponsored city and state champion Southwest Rams move on to the Nationals!



In their first time playing under the lights on artificial turf at Tucson High, the Tucson city champ Elastek Southwest Rams outscored the Phoenix city champs. This group of 8-11 year olds, their coaches led by Gilbert Hernandez, and families immediately kicked into high gear to raise funds to travel to Florida to compete in early December. The families really get behind this group, and the coaches do a terrific job of grooming these young players to play for Sunnyside High School in years to come. We're really proud of our champions and rooting for them all the way!

Rooftop changes don't necessarily void Elastek warranty

By Rick Ulrich

At the recent Alternative Energy Expo, we encountered a new question regarding our warranty: Do certain changes or additions done on an Elastek coated roof automatically void our roof coating warranty? Typical here are such things as the replacement, addition, or malfunction of solar water heating units, photovoltaic panels, HVACs or coolers, gas and electric lines, satellite dishes, and so on.

The good news is that our roof coating warranty is not automatically voided by any of these or similar activities. However, any damage to an Elastek roof coating caused by rooftop activity would void the warranty in that area. Unaffected areas of roof coating would continue to be warranted against normal wear failures.

Roof coating failures may occur due to equipment leaks, objects laid on the roof that can become bonded to the roof coating, inadequate flashings, or penetrations made through the coating.



Changes or additions to a roof don't automatically void roof-coating warranty

Roof coating damage is common on roofs subject to frequent service traffic. **Please note that roof coating damage that is repaired promptly can restore the coating warranty.**

Bottom line: A roof coating application that qualifies for warranty is in full effect unless and until there is a failure directly traceable to rooftop activity.

Not all roof surfaces are created equal

By Jerry Rockwell

There are a large variety of single-ply roofing membranes. They vary from modified asphalt to rubber and plastics. Some are available in white and a large variety of colors, and some are only available in black.

Single-ply membranes such as EPDM and modified bitumen (SBS) are modified rubber or asphalt. These membranes must be coated with a reflective roof coating to prevent UV damage. Granulated SBS does not suffer immediate UV damage, but to prevent any such damage as the roof ages, we recommend coating it as well. The application of roof coating to these materials will also greatly increase energy savings.

Hypalon is a single-ply membrane made from polyethylene based materials, practically designed to be coated. PVC, a vinyl plastic, also accepts roof coating very well.

Some single-ply membranes need special preparation before coating. EPDM must be exposed for a minimal time period and then cleaned with a rinseable primer. EPDM that was exposed for six months and then cleaned had much higher adhesion test results than new EPDM. SBS modified bitumen should also be exposed to the sun for a minimal time period. Once the material has been exposed for at least 15 days, but no longer than 30 days, it should be cleaned using TSP Substitute. The SBS adhesion test data was higher after exposure. Adhesion data is based on testing performed by Elastek.

TPO (thermoplastic polyolefin) is a single ply membrane that we do not recommend coating at this time. APP modified bitumen can be coated under the right conditions. Roof coating usually has poor adhesion to this material so an adhesion test is suggested to determine coating capability.

We recommend coating most single-ply membranes with Solar Tek Extreme (with the exception of TPO and APP). This will provide the best adhesion and protection from the elements for years to come.

It's not rocket science: ceramic spheres are back

By Rick Ulrich

Long before we began our business 15 years ago someone decided to put tiny ceramic spheres in an elastomeric roof coating and call it an insulative coating. Because the space shuttle used ceramic tiles on its ablative shield, a few coating manufacturers have made regular reference to "space shuttle technology." In fact, years ago Elastek made ceramic coatings for several customers who sold them as great energy savers.

The concept has died and been revived numerous times, as someone new discovers the concept...I notice it is back again.

Microspheres are round, smooth, hollow particles that can be made of glass, ceramic, or resin and are available in a variety of sizes. Particles used in our ceramic coatings were glass and averaged about 45 microns, so small they can barely be seen. Most insulation works by creating dead-air space, usually with foam or fiberglass materials one-to-six inches thick. Given the size of microsphere particles

and the thin film thickness of an elastomeric coating, the amount of trapped air in a coating will be microscopic too.

At a recent technical meeting, I had the opportunity to talk with a scientist responsible for again testing the insulative sphere concept for a major manufacturer. It appears likely that a much thicker coating will be required to create sufficient dead-air space and larger spheres to increase air trapped and lower microsphere costs. High quality spheres seem to increase initial solar reflectance slightly, but in our tests the slightly grainy coating surface quickly attracted more dirt than smooth coatings... thus reducing reflectivity.

You can expect that "ceramic coatings" — typical elastomeric coatings with some spheres replacing calcium carbonate in the formulation — to be lighter than standard roof coatings and far more expensive. Those seeking real rooftop insulation are better served by looking into spray polyurethane foam or foam insulation board.

Up on the rooftop with Harless

It's a white Christmas in Tucson...at least from an aerial view

By Harless Oscislowski

When Santa approaches Tucson he's going to need sunglasses to filter out the reflective roofs all around. I spend time on many Tucson roofs with area contractors, recommending products, application methods, and reviewing applications for performance. I can assure you that many Tucson roofing contractors are doing their best to help businesses and homeowners save energy costs and protect their roofs.

Here are a few recent roofs I've reviewed. I'm happy to report that they have all been Elastek-approved for any reindeer landings.



At the American Cancer Society building on North Swan Avenue, Navarro Roofing completed this bright white roof with three coats of Solar Tek Extreme applied over 90-pound granulated cap. An APOC modified asphalt emulsion was applied prior to roof coating. Juan Navarro, owner, and his son Hernon (above) did a beautiful job (below).



GW Pedersen & Son Construction topped off several roofs in the medical complex adjacent off West Anklam this Fall. Rich Pedersen (above) first applied a coat of our High Tek Basecoat prior to spray applying Solar Tek Extreme for a spectacular white finish (below).



Western Coatings Symposium focuses on saving energy and new technology

By Rick Ulrich

The Western Coatings Symposium and Show focuses on the needs and interests of western US coating manufacturers and suppliers like Elastek. This year's biennial show was held in Las Vegas October 21-24 at the Flamingo Hotel.

Steve Mink and I found our time spent at this smaller show to be more productive than the larger national and international events. We attended a few of the many technical presentations. The themes that shaped this year's program were saving energy, sustainability, and new technology.

We are looking for major improvements in the long-term reflectivity ('energy savings') of white reflective coatings. It also seems likely that various types of elastomeric roof coatings combined with roofing fabric will lead to more high performance, built-in-place roof membranes.

Costs for raw materials used in coatings are predicted to increase during the coming year as both key ingredient costs are affected by oil and natural gas prices which, in turn, are further increased by the rising energy costs of shipping. A double whammy!

The price offset, we hope, will be better, more durable coating products that last longer and perform better. We've learned that resin suppliers are pushing for even better technology in roof coating and we should see the difference soon.



Elastek takes part in first annual Livin' La Vida Verde

By Bonnie Lewis

Elastek hosted an outdoor booth at the Livin' la Vida Verde Green Festival held at Mission Manor Park, on October 27. The event sponsors included Sunnyside School District, Sustainable Tucson, and the Arizona Association for Environmental Education.

The Elastek display was educational in nature with our large charts, pop-up banners, and literature.

TekTalk

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