Asphalt and Concrete Protection

The City of Los Angeles LACI Cool Pavement testing and demo are important pieces of evidence to support the understanding of ThermaCote® as a tool used in the mitigation of the Urban Heat Island Effect. The results from the LACI testing show that ThermaCote® is capable of withstanding the wear and friction caused by tires on a roadway over time. The act of coating a surface or substrate with ThermaCote® helps that surface to resist absorption of heat caused by changes in temperature or exposure to direct sunlight. In this demonstration, ThermaCote® was able to coat asphalt roadways in the City of Los Angeles and the results concluded that our coating is successful in resisting damage, skids, slips, and heat transfer. Being able to implement a product like ThermaCote® in Los Angeles, and other urban environments will help support the infrastructure of our cities by reducing the amount and depth that heat can infiltrate each substrate. The ThermaCote® coated substrates are able to mollify heat gain from radiation, convection, and conduction. Our purpose is to provide our customers with efficient solutions to address energy loss and safety concerns, corrosion problems and personnel protection through products which as well improve other building and engineering disciplines. We do what is needed to develop tailored and sometimes very specific application solutions for our customers, to fit their requirements.

In concurrence with reducing the Urban Heat Island Effect, ThermaCote® adds traction for streets and parking structures without the addition of aggregate materials. This means that when applied in a smooth coat, ThermaCote® is still able to provide traction. When tested in wet conditions, ThermaCote® improves the safety of regular asphalt and concrete surfaces and is proven safe for vehicular and pedestrian traffic in accordance with the slip and skid resistance standard of California (ASTM C1028 and California Test 342). ThermaCote® is not slippery when wet!

Thermacote adheres to almost any clean and dry substrate. While we recommend pressure washing and cleaning for application on roofs, walls, and other substrates, it is not necessary that road surfaces be washed as thoroughly. In fact, prior to installing ThermaCote® on drive or parking surfaces, it is encouraged that the substrate is prepped minimally by using forced air and sweepers to clean off

freestanding debris. There is no need for the surface to be pressure washed or cleaned to a specific degree before installation. In fact, ThermaCote® does not use water in its free form at all for the preparation or installation process on roadways. At ThermaCote, Inc. we understand that fresh water is a precious commodity and should be conserved when possible. When the application team is prepped and ready to start spraying, they can breathe easy because, at 5.3 g/l, ThermaCote® has an exceptionally low Volatile Organic Compound makeup and is certified for indoor air quality within classrooms and offices. Many coatings release dangerous VOC's into the atmosphere when they begin off-gassing, drying, or curing after application which can cause dangerous releases to the environment which and affect health. Traditional paints or road sealants will be applied at a prescribed thickness while wet, with the knowledge that the dry film will be much thinner after it has cured. In many cases, up to 2/3 of the coating will be dissipated into the surrounding atmosphere and environment. ThermaCote® is composed of over 80% solids which means that, not only will the thickness remain more accurate wet to dry, there is also very little loss of material into the environment.

ThermaCote® is able to maintain high levels of emissivity regardless of road debris and exposure to tires, weather, or other naturally occurring elements, including dirt and pollution. There is minimal maintenance required after the initial installation. Between standard street sweeping and the occasional rainfall – ThermaCote® is able to maintain its full benefits. If areas of abnormal use, staining, or spillage occur, ThermaCote® can be scrubbed with a light detergent and/or touched up without impacting the surrounding coating.

In addition to roadways and parking structures, ThermaCote® excels when used as a coating for concrete bridges, overpasses, and support structures. Our coating has a CE mark which certifies that ThermaCote® is compliant to all current standards of health, safety, and environmental laws throughout the European Union and, although not currently a standard, it is currently regarded by the United States Federal Transit Administration as a mark that defines products which "do not induce significant impacts to planned growth or land use for the area, do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts."

Attached are test results that supplement the above detail of the positive correlation between ThermaCote® and traction performance. The test results for the ThermaCote® performance under tests 19-752-123/124 and 19-512-61/62 based on the City of Los Angeles, Department of General Services, Standards Division is the most recent representation included. Other documents that have been included are: The Pendulum Test Method under ASTM E 30-93 (2008) which is considered the International Roads Standard for anti-slip on road surfaces in wet conditions; the Assessment for Sustainable Slip Resistance (SSR), with results before and after wear; and finally a condensed write up of *Traction Results on ThermaCote*® which encompasses results from the US Road Standard, International Road Standard, International Airport Runway Standard, Australia's Ant-Slip standard for swimming pool decks and surrounding areas, and McDonald's 'Slippery When Wet – Ramp Test'.