

COOL ROADWAYS FACT SHEET



"Cool" pavements reflect more solar energy than traditional dark pavements or are permeable to water to allow for cooling by evaporation.



Pavement makes up about one third of the surface area of an average city and are absorbing a lot of solar energy and heating our cities.

5 - 20°F



Pavements with cool treatments can be substantially less hot than traditional pavements and contribute to cooler air temperatures. Cooler temperatures reduce heat stress, improve air quality, and build resilience to heat among urban residents.

BETTER ROADS



Pavements with cooler surfaces last longer than traditional dark pavements, cut outdoor lighting needs, and reduce stormwater temperatures.

PART OF THE URBAN COOLING SOLUTION

Paired with trees and other measures, cool pavements are a key part of an integrated approach to improving the resilience of urban communities to heat.

COOL PAVEMENT OPTIONS FOR ROADS

**COOL
SEALCOATS
AND SLURRIES**

CONCRETE

**PERMEABLE
ASPHALT**

**REFLECTIVE
OVERLAYS**

**PAVEMENT
REJUVENATORS**

**REFLECTIVE
COATINGS**

**LIGHTER COLOR
AGGREGATE**

**PERVIOUS
CONCRETE**

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COOL ROADWAY FAQ



WHAT ARE COOL PAVEMENTS?

Cool pavements reduce surface and nearby air temperatures, either by increasing the amount of solar energy reflected by the surface or making the surface permeable to water to cool by evaporation.

HOW MUCH COOLING?

Cool pavements reduce surface temperatures by 5-20°F. Air temperature reductions are possible when cool pavements are installed at scale.

OTHER BENEFITS?

Cool pavements are more durable, reduce outdoor lighting needs, and reduce the temperature of stormwater runoff. Cool pavements improve air quality by reducing ozone formation and, in some cases, by neutralizing airborne NOX.

COSTS?

Material costs vary widely, ranging from under \$5.00 to approximately \$20 per square yard.

REOPENING ROADS?

Curing times vary by product and weather conditions, but can be anywhere from under an hour to a little over a day -- Very similar to traditional products.

GLARE?

While cool roofs and white roofs are used interchangeably, the same is not true for pavements. Most cool pavements are medium to light grey in color - similar to a fresh concrete sidewalk. Glare is rarely, if ever, a complaint.

ENERGY IMPACT?

Energy benefits and costs of cooler pavements depend on the scale, siting, and location of implementation but is generally positive. A cost benefit analysis conducted by the city of Los Angeles concluded that adding a reflective slurry to its pavements would yield an estimated annual energy savings of \$5 million.

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