

## Feeling blue: Qatar road turned azure to cool city

September 9 2019



Qatar hopes that the blue heat-reflective road coating will help reduce heat in the area

Qatar has turned a busy stretch of road in the capital Doha bright blue as part of an experiment to cool the tarmac surface and reduce the



temperature of surrounding areas.

Temperatures in the desert emirate sometimes reach 50 degrees celsius (122 Fahrenheit) and <u>heat</u> was a major concern when the country was named as host of the 2022 World Cup.

While the tournament will be hosted in the cooler winter months to avoid the hottest period, Doha still grapples with stifling conditions in the summer.

High temperatures can cause car dashboards to crack, paintwork to discolour and plastic trim to melt—encouraging authorities to look for innovative solutions.

A 200 metre (218 yard) stretch of a downtown thoroughfare leading to the waterfront has been coated with a one millimetre-thick blue heatreflective pigment.

Over an 18-month trial period Ashghal, Qatar's public works authority, will test if the new surface effectively brings down the temperature and helps reduce heat in the area around the coated road.

"We do have an environment where there are <u>higher temperatures</u> that occur in the surrounding hinterland and obviously that is uncomfortable," said Alex Amato, head of sustainability at the Qatar Green Building Council.





Temperatures in the desert emirate sometimes reach 50 degrees celsius (122 Fahrenheit)

"Instead of having a black road which absorbs the heat greatly you have a road which will reflect some of the heat away."

Similar cool paving schemes have been trialled elsewhere including in Los Angeles.

Japan, which sees intense heat and humidity in Tokyo in the summer, is hosting a number of high-profile sporting events including this year's rugby World Cup and the 2020 Summer Olympics.

Authorities in the capital have said they will also install reflective road



surfaces across the capital to combat high temperatures. The city will also plant shrubs to help absorb heat through the natural process of photosynthesis.

Tarmac and cement absorb <u>solar energy</u> during the day and release it during the night, meaning cities are hotter than the surrounding countryside as buildings and streets act as a giant heat sink.

It is hoped Doha's eye-catching blue surfaces will absorb less <u>solar</u> <u>radiation</u> and reflect ultra-violet rays, reducing the local temperature for passing pedestrians and motorists.

A digital display alongside the Doha experiment showed the traditional surface was between six and 10 degrees hotter than the covered roadway.

"Maybe we can't alleviate the temperature—the external <u>temperature</u> —throughout the whole of the year, but certainly we can extend that period when people can use those external spaces," Amato said.

© 2019 AFP

Citation: Feeling blue: Qatar road turned azure to cool city (2019, September 9) retrieved 28 April 2024 from <u>https://phys.org/news/2019-09-blue-qatar-road-azure-cool.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.