

Application of SiO₂ and TiO₂ coatings to Solar Panels in Abu Dhabi

Overview

This trial has been established in order to evaluate how solar panels benefit from being coated with SiO₂ and TiO₂ coatings.

Procedure.

3 solar panels were randomly chosen as test sites.

Each panel was cleaned in order to remove soiling. It should be noted that the soiling was well established and difficult to remove.

After 3 solar panels were cleaned the application of SiO₂ and TiO₂ took place (Please refer to the images) The SiO₂ was applied by wiping. TiO₂ was applied by spray.



“Control”
Cleaned but not
coated.

Panel coated with
SiO₂

Panel coated
with TiO₂

This image shows the location of the panels within the facility.



Continuation of the trial

Prior to the application of the coatings all felt confident that the coatings would enhance the performance of the panels.

The baseline hypothesis being that the SiO₂ coatings would create a surface which was easier to clean and may contribute to reduced adhesion of particulates.