

Quelle: MLC Metall

SIKA AT WORK

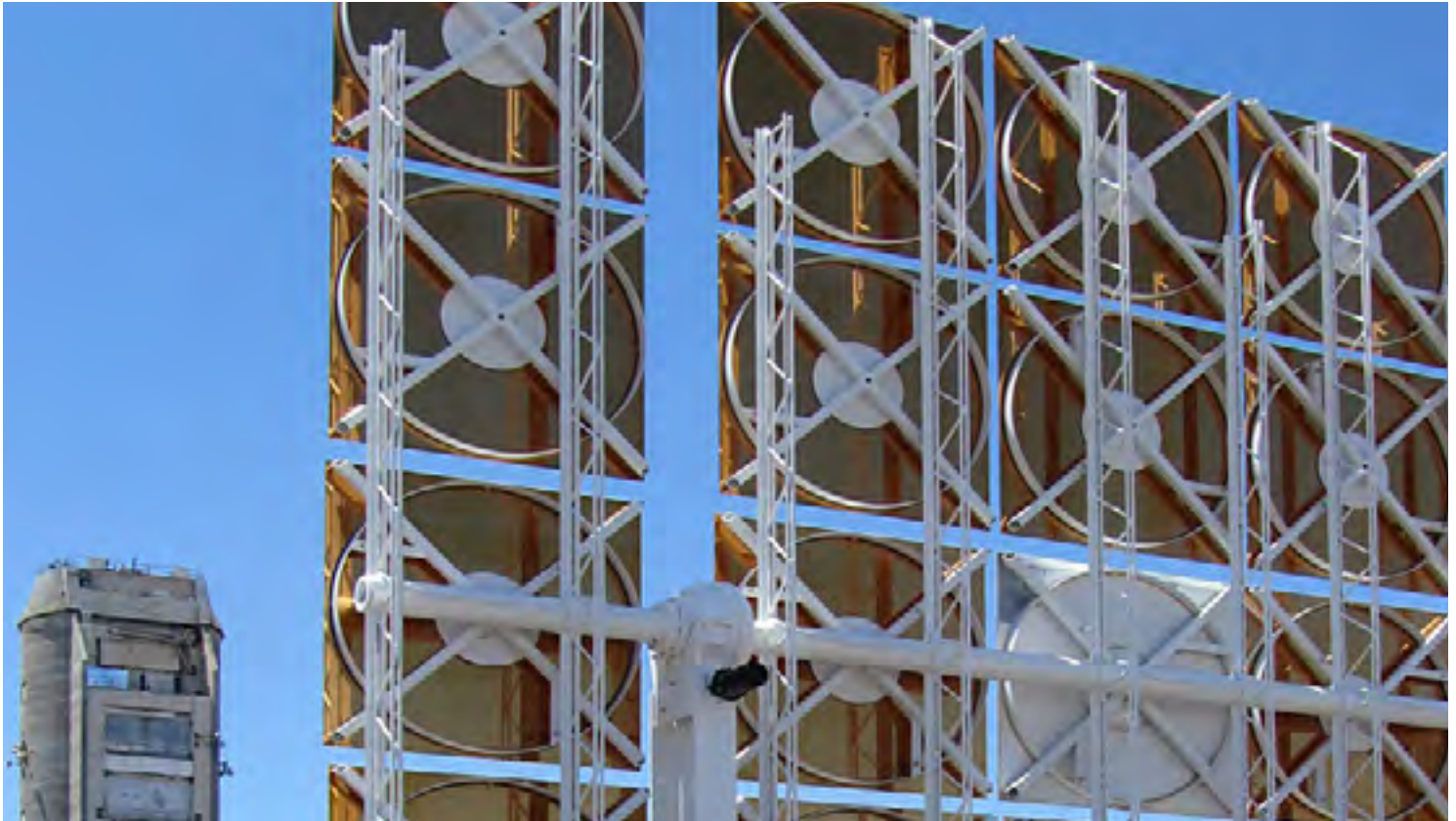
SANDIA NATIONAL LABORATORIES - SOLAR THERMAL TEST FACILITY, USA

SYSTEM REFURBISHMENT WITH Sikasil® AS-785

BUILDING TRUST



SANDIA NATIONAL LABORATORIES, USA



PROJECT DESCRIPTION

Operated by Sandia National Laboratories for the U.S. Department of Energy (DOE), the National Solar Thermal Test Facility (NSTTF) is the only test facility of this type in the United States. The NSTTF's primary goal is to provide experimental engineering data for the design, construction and operation of unique components and systems in proposed solar thermal electrical plants planned for large-scale power generation. Sikasil® AS-785 2-component structural silicone is used in the refurbishment of Sandia's system of heliostat mirrors and facet components used to gather concentrated solar power, that have been in service for over 30 years. Each heliostat has 25 facets. The ring and disc are bonded directly to a glass surface with Sikasil® AS-785. The remainder of the flat back surface is glass that was painted white after the disc and ring were bonded to it.

Sika's Sikasil® AS-785 was chosen following extensive in-house testing and on site Sika technical assistance at the Sandia facility. Sikasil® AS-785 was chosen specifically for the mirror attachment to the supporting center ring of the individual heliostat. Sandia National Laboratories was convinced by Sika's ability to provide a comprehensive technical package and demonstrated "know-how", which included bond joint and configuration calculations and a full technical report on the application methods and surface pre-treatments required to maintain a structural and durable bond over the next decades. A value added ad-

dition was that Sika also advised the Sandia Labs on the correct type of application equipment needed to dispense and meter mix the adhesive for the process. As no frames are needed with this system, the self cleaning of the module surfaces are relieved too. Furthermore a 25% time saving in installation compared to a standard mounting could be demonstrated.

SIKA SOLUTION

Sikasil® AS-785

PROJECT PARTICIPANTS

Project name: Sandia National Laboratories - National Solar Thermal Test Facility
Location: Albuquerque, New Mexico, USA
Owning company: Sandia National Laboratories
Power output: 5 MWp
Start of operation: October 2010

FIND MORE SIKA REFERENCES



www.sika.com/solar-references

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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