



**ANTI-REFLECTION &
ANTI-SOILING COATINGS**



ABOUT MITREX COATING

The Mitrex coating process is a solar coating and application system that adds an anti-reflective and anti-soiling silica shield to any solar array. The anti-reflective coating helps the solar module capture more light, increasing energy output from direct axis light by 3.4–3.8% and total energy output by up to 4.7%*. In addition, the unique properties of our anti-soiling coating prevent the build-up of dirt, dust, and other particulates more effectively.

ANTI-REFLECTION & ANTI-SOILING COATING

Independent lab tests and extensive field testing have demonstrated that, compared to modules without AR coating, the Mitrex AR coating delivers up to 3.4 – 3.8% improvement in direct axis power and up to a 4.7%* improvement in total energy. Regardless of the time of day, nothing beats Mitrex coating when it comes to capturing more sunlight and creating more energy.

Receive even more power generation with Mitrex anti-soiling coating, that effectively prevents dirt, dust, and other particulates from sticking to glass. Mitrex reduces soiling rates by as much as 90%, lowering your cleaning costs and further improving energy output. Mitrex products have been extensively safety-tested for durability, are fully recyclable and are backed by our exceptional hardware and energy-generation warranty. Combined with our advanced coating, Mitrex redefines energy generation.

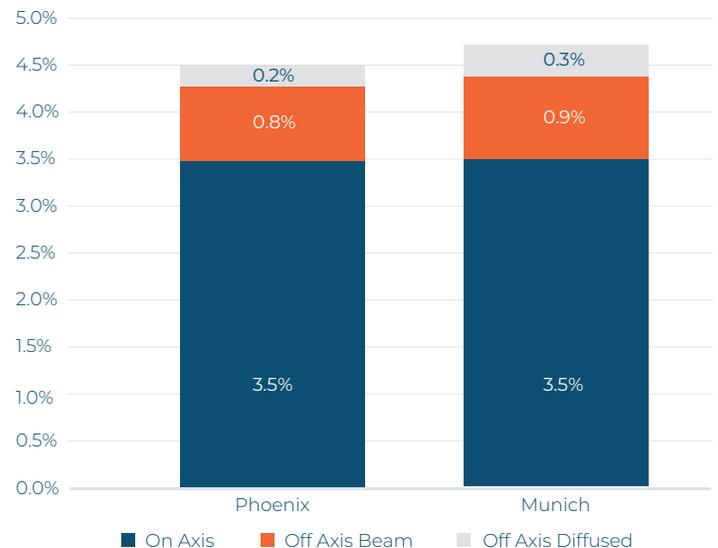
LEARN MORE

Mitrex delivers the highest energy gains of any product on the market. In direct axis light Mitrex outperforms leading competitors by more than 30%. In off-axis and diffused light, Mitrex captures even more solar energy. And with anti-soiling coatings, the energy gains are even greater.

MITREX FIELD TRIAL ENERGY GAINS

LOCATION	DATE	POWER GAIN
Central CA (Sharp)	Aug 2019	4.0% AC
Northern CA (FSLR)	July 2019	4.1% AC
North Carolina (Poly)	May 2019	3.8% AC
Germany		
Central (FSLR)	Apr 2018	4.1% AC
Southern (FSLR)	Nov 2017	4.0% AC
Eastern (Poly)	June 2019	3.7% AC
United Kingdom (FSLR)	Nov 2017	3.6% AC
Italy (Poly)	Sep 2018	3.8% AC

MITREX TOTAL ENERGY GAIN



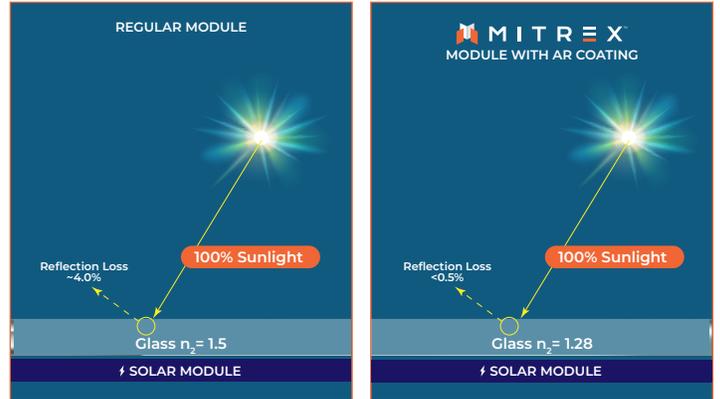
*Energy Gain estimates based on laboratory-certified energy gains applied to a specific solar farm using the PVSystem™ model. Total energy gains may vary based on module type, location, weather, site configuration, and numerous other factors.

HOW IT WORKS

Mitrex anti-reflection coating forms a thin glass (silica) layer over the module, creating a molecular bond with the existing module glass, and resulting in a unique surface structure that increases light collection and repels dirt. This works by providing an incoming photon with a gradual transition from air to glass.

HOW IT WORKS

Mitrex anti-reflection coating is professionally applied using a micro-channel deposition system. With a transfer efficiency of greater than 95%, our proprietary applicator systems practically eliminate waste while applying a uniform, precision 140nm silica layer. In the factory, Mitrex's low-temperature curing enables application on assembled modules and thin-film technology. This enhances our products with industry-leading AR properties as well as industry-leading anti-soiling capabilities.



ROBUSTLY FORMULATED

Mitrex is engineered for strength and durability to survive even the harshest environmental conditions.

HIGHLY ACCELERATED STRESS TEST

	% AR PRE-TEST	% AR POST-TEST	% AR CHANGE
MITREX	3.15	2.84	-0.31
COMPETITOR AR _(A)	2.67	1.68	-0.99

WEST SCRUB TEST

	% AR PRE-TEST	% AR POST-TEST	% AR CHANGE
MITREX _{2,000 CYCLES}	3.24	3.12	-0.12
COMPETITOR AR _(B) _{100 CYCLES}	2.50	2.20	-0.30

DAMP HEAT

	% AR PRE-TEST	% AR POST-TEST	% AR CHANGE
MITREX _{2,000 HOURS}	3.04	3.04	0
COMPETITOR AR _(B) _{1,000 HOURS}	-2.5	-2.0	-0.5

HUMIDITY FREEZE-THAW TEST

	% AR PRE-TEST	% AR POST-TEST	% AR CHANGE
MITREX _{10 CYCLES}	3.49	3.27	-0.22
COMPETITOR AR _(B) _{10 CYCLES}	2.50	2.00	-0.50

ULTRAVIOLET (UV) TEST

	% AR PRE-TEST	% AR POST-TEST	% AR CHANGE
MITREX _{250 HOURS}	3.11	3.11	0
COMPETITOR AR _(B) _{250 HOURS}	2.50	2.50	0

SAND DROP TEST

	% HAZE PRE-TEST	% HAZE POST-TEST	% HAZE CHANGE
MITREX	0.65	0.90	0.25
COMPETITOR AR _(A)	0.70	2.20	1.50

SAND BLAST TEST

	% AR PRE-TEST	% AR POST-TEST	% AR CHANGE
MITREX _{2,000}	3.20	2.82	-0.37
COMPETITOR AR _(B)	?	?	?

(A) Direct Lab Testing of leading AR competitor; (B) Published data from leading retrofit AR coating.

MITREX ARC LIGHT TRANSMISSION GAIN BEATS THE COMPETITION ON AVERAGE BY >25%

Based on:

- In-field spectrometer measurements of competitor ARC's light transmission gain across spectrum from 400nm to 800nm relative to uncoated solar panel cover glass (shown below).
- Publicly available competitor ARC performance data.

