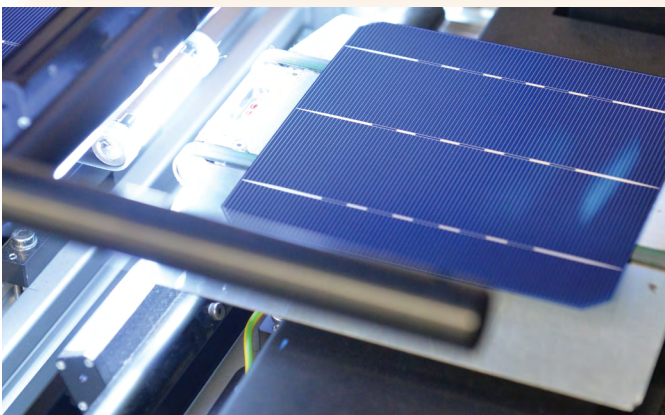


RIGOROUS TESTING

An Overview of SunEdison's Comprehensive Testing Procedures

SunEdison's internal reliability testing goes beyond industry standards to deliver durable, long-lasting modules.



Stress Testing

Silvantis modules must endure a suite of accelerated stress tests to demonstrate durability.

▶ Temperature Cycling

Simulates daily and seasonal swings in temperature to ensure Silvantis modules tolerate a lifetime of expansions and contractions.

▶ Damp Heat

Exposes modules to a combination of intense heat and moisture to test internal integrity.

▶ Humidity Freeze

Applies extreme thermal variations to the module under high humidity to test lamination strength.

▶ Potential Induced Degradation (PID)

Stresses modules at 1,000 V under conditions more than three times as rigorous as the industry standard test to ensure consistent PID-free performance under high voltage.

▶ Static/Dynamic Mechanical Load and Impact

Demonstrates module durability under high forces of wind loads, snow loads and hail impacts.

▶ Corrosive Environments

Reproduces corrosive conditions from salt mist in coastal areas and ammonia from agricultural exposure.

▶ UV Exposure

Confirms that module components do not degrade under sustained UV radiation.

Testing Beyond Industry Standards

SunEdison designs and tests solar modules to exceed certification requirements.

STRESS TEST	INDUSTRY STANDARD	SUNEDISON TEST	SUNEDISON DURABILITY
Temperature Cycling (-40°C to +85°C)	200 Cycles	400 Cycles	2X
Damp Heat	1,000 Hours	2,000 Hours	2X
Humidity Freeze	10 Cycles	30 Cycles	3X
PID	60°C/85% RH 96 Hours	85°C/85% RH 300 Hours	3X
Load Stress	Static Load	Static and Dynamic Load	2X
Electrical Validation	Third Party Standard	Third Party Standard, Hot Spot Analysis, 100% Electroluminescence	✓
Corrosive Environments	Not required	Ammonia and Salt Mist Exposure Testing	✓

International Certifications

Silvantis modules hold the following international certifications:

IEC 60068-2-68: Dust and sand resistant

IEC 61701: Salt mist corrosion resistant Level 1 and Level 6

IEC 62716: Ammonia corrosion resistant

IEC 61215: Long-term operation in a variety of climates

IEC 61730: Ensures electrical and mechanical safety

UL 1703: Installation and operational safety

For more information about SunEdison visit www.sunedison.com