



# News Release

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## **SANYO HIT<sup>®</sup> N-Type Modules Pass Ammonia Resistance Test** *N-Series fulfills requirements of "Ammonia Resistance Test" by TÜV Rheinland*

**Munich, June 28, 2011** – SANYO Component Europe GmbH is pleased to announce that its HIT<sup>®</sup> N-Type modules (HIT-NxxxSE10) have passed all the requirements of the TÜV Rheinland ammonia corrosion test for photovoltaic modules.

Especially in farms with livestock, it is crucial that the glass, frames and connections of the installed solar modules are ammonia-resistant and do not corrode, especially if the modules are in the vicinity of livestock ventilation systems. Barn air contains a high level of ammonia, which in combination with oxygen forms salts. The tested modules of the N-series have shown that even high levels of ammonia do neither affect their efficiency nor make them age prematurely.

The tests have been performed on HIT-N230SE10 modules and are conducted according to the standard IEC 62716 draft C "Ammonia corrosion testing of photovoltaic modules", which considers existing standards for electrical systems, coating corrosion protection and sulphur dioxide contamination of metal surfaces. Experts at the Surface Technology Competence Centre at TÜV Rheinland in Nuremberg developed this method together with solar module testing specialists at the Cologne site. The 20-day test cycle exposes the modules to an extreme environment of 6,667 ppm NH<sub>3</sub>, consisting of alternate cycles of eight hours at 60°C and 100% relative humidity followed by 16 hours at 23°C and a maximum of 75% relative humidity. Compared to other ammonia tests that use ammonia gas, the TÜV Rheinland test uses highly concentrated liquid ammonia, which is even more aggressive.

The measurements included power measurement, insulation testing and visual inspections. The maximum permissible power degradation of 5% was not exceeded. Furthermore, the minimum insulation requirements were met. No major visual effects were found.

For farmers, the economic returns of solar installations often play a key role. Therefore it is crucial that the modules generate a constant yield. SANYO solar modules met all the test requirements of the TÜV Rheinland ammonia resistance test. This test result once again underlines the longevity of SANYO solar modules and shows that these high-performance modules are well suited for use on farm roofs as well.

\* HIT<sup>®</sup> is a registered trademark of SANYO Electric Co., Ltd. The name "HIT<sup>®</sup>" comes from "Heterojunction with Intrinsic Thin-layer" which is an original technology of SANYO Electric Co., Ltd.

## **About SANYO**

In 1980, SANYO was the first company starting mass production of amorphous solar cells. In 1997, mass production of the high efficiency, high output HIT<sup>®</sup> Photovoltaic Modules was started.

The HIT<sup>®</sup> Solar cells (thin mono crystalline silicon wafer surrounded by ultra-thin amorphous silicon layers) are highly appreciated by the market not only by the characteristics of high efficiency and outstanding temperature characteristics but also because of their very high reliability.

In 2004, SANYO Component Europe GmbH, the European sales headquarter was established, followed by the module assembly production site in Hungary in 2005. SANYO Component Europe GmbH is a member of PV CYCLE, the European take back and recycling program for end-of-life-modules.

## **Media Enquiries**

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