

Press Release – Berlin 14/05/2014

## PI-Berlin Provides Certified Protection Against PID

The accredited test laboratory for solar modules Photovoltaik-Institut Berlin AG (PI-Berlin) announces ‘PID Block’ – a new programme for the confirmation of superior PID-suppressing properties of encapsulation materials. Hereby, the materials undergo insightful and specifically designed test sequences developed by PI-Berlin. These tests also provide information on the extent to which new materials in the PV module compound may even prevent the occurrence of PID, regardless of other module components or external influence factors.

“Potential Induced Degradation (PID) in solar modules is an increasingly observed field defect, which can drastically reduce the electrical energy yield of PV modules”, explains Dr. Juliane Berghold. “Over time, the performance of affected modules may drop by a double-digit percent range. Sometimes, PID may even lead to a total failure of the modules.”

PI-Berlin tests on the level of material issues and certifies encapsulation materials that are able to effectively suppress PID depending on the system configuration – regardless of the solar cells used, the installation site of the modules and the voltage stress exposed to them. Suitable encapsulation materials are able to compensate for the other factors, and, therefore, effectively prevent PID or at least reduce it significantly. To receive certification, the material must complete a two-part test programme developed by PI-Berlin on the basis of field experience and in-house R&D activities. These include both PID tests at the module level using PID-susceptible cells and further analysis of the encapsulation technology at the material level.

Demanding criteria for the volume resistivity of the materials must be met at different environments and after aging tests.

The PI-Berlin certificate will only be awarded if a material has passed all the tests and the manufacturer is able to demonstrate certified quality management. The Dow Chemical Company is the first manufacturer of PV encapsulant films to achieve certification for two encapsulation materials from their ENLIGHT™ Polyolefin Films product portfolio.

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Image Material and a pdf of the press release can be found at the following link:

[http://pressedownload.pr-krampitz.de/2014\\_05\\_14\\_PM\\_PI\\_Berlin.zip](http://pressedownload.pr-krampitz.de/2014_05_14_PM_PI_Berlin.zip)

## Significant Field experience

PI-Berlin has gained significant field experience with PID, carried out extensive R&D activities in the area, and has investigated and identified key factors influencing PID. It has been shown that the module encapsulation materials play an essential role for the occurrence of PID in the field, in addition to environmental conditions and the system configuration.

## About the Photovoltaik-Institut Berlin AG

Photovoltaik-Institut Berlin AG (PI-Berlin) offers comprehensive testing services and qualified certification in the areas of PV module technology and PV power plant construction. Besides module tests according to IEC, PI-Berlin's own test developments (PID+, Peel, EVA, EL) are now officially accredited. To ensure the quality along the entire value chain – from the raw material to the PV power plant – PI-Berlin has compiled efficient quality service packages. The continuous development of test methods is ensured by its in-house R&D division. In addition to the laboratory in Berlin, PI-Berlin operates another accredited testing laboratory in Suzhou (PI-China).

## Contact

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## Further reading

[www.pi-berlin.com](http://www.pi-berlin.com)