

TÜV Rheinland Energie und Umwelt GmbH  
 51101 Köln

Renewsys Encapsulating Energy  
 Plot No 56, Sector 15, CBD Belapur East,  
 Navi Mumbai 400 614,  
 Maharastra, India

Konstantin Strohkendl  
 Tel. +49 221 806-2444  
 Fax +49 221 806-1350  
 Mail Konstantin.strohkendl@de.tuv.com  
 Web www.tuv.com/pv

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**Declaration**  
**- 21218373 -**

**Modul typ:** Prototype A

- **Glass:** Centro Solar 1655x991x4 mm
- **Cells:** Indo Solar 3,5 W 2BB
- **Ribbons:** Brucker Spaleck 2,0x0,15 mm Ecu+ SnPbAg 62/36/2
- **Fixing Tapes:** Tesa 4129 auf Rolle a 66 m, Breite 19 mm
- **Backsheet:** DunSolar Dunmore PPE+ 0,36mm x 1000mm
- **EVA** CONSERV A 360 – 14 FC

**Modul typ:** Prototype B

- **Glass:** GMB SILK Solar Glas 3,2 mm Interfloat
- **Cells:** Q.CELLS Q6LPTP6-G2 4,04 Wp mc-Si; Q.CELLS Q6LMXP3 4,43 Wp sc-Si
- **Ribbons:** Brucker Spaleck 62/36/2 Sn/Pb/Ag 0,15\*1,7 mm
- **Fixing Tapes:** Scotch 8306
- **Backsheet:** DunSolar DS0046 PPE+ 34 µm
- **EVA** CONSERV A 360 – 14 FC

**Basis of testing:** IEC 61215:2005 "Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval"

**Test result:**

Test Series	Tested and Passed
Damp Heat	Prototype A&B
UV Exposure, Thermal Cycling (50), Humidity Freeze	Prototype A
Thermal Cycling (200), Impulse Voltage Test	Prototype A
Hot Spot Test	Prototype B

For the assessment of the encapsulation material in the test modules initial and final control measurements were performed before and after the environmental stress test. 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 as defined in IEC 61215:2005 were met. No major visual defects as defined in IEC 61215 section 7 were found.

Cologne, June 2012

Business Field Solar Energy

ppa.



Dipl.-Ing. W. Vaaßen

i. A.



Dipl.-Ing. K. Strohkendl



Carbon Neutral Company

TÜV Rheinland  
 Energie und Umwelt GmbH

Am Grauen Stein  
 51105 Köln

Tel. +49 221 806-2477  
 Fax +49 221 806-1350  
 Mail eneratest@de.tuv.com  
 www.tuv.com/solarpower

Managing Director  
 Eckhard Lippold

Amtsgericht Köln HRB 56171