

SF QUALITY CONTROL SYSTEM

SUNfarming Quality Control System

- SUNfarming quality controllers regularly check the production and do final inspection of the modules in our partner factories
- In cooperation with the TÜV Rheinland and PI Berlin, SUNfarming analyzes each container on a random basis and carries out additional quality checks
- through comprehensive and detailed online monitoring SUNfarming ensures long term quality
- insured transport with a German forwarder from manufacturer warehouse to final destination

1. Flashtest (STC)

- the flash test measures the maximum performance of the module under optimal conditions (Standard Test Conditions)
- SUNfarming only purchases modules with plus tolerances
- SUNfarming randomly takes out test modules of each SUNfarming container and carries out STC-performance tests in external test institutes like the PI Berlin
- in each partner factory, SUNfarming has a reference module calibrated by TÜV for the calibration of the manufacturers flash machine

2. Electroluminescence Inspection (EL)

- SUNfarming ensures that there are 100% double EL inspections in the production lines before and after lamination
- SUNfarming regularly orders EL tests in independent test institutes

3. Low irradiance (LI)

- SUNfarming regularly carries out low irradiance tests in external test institutes so that the modules not only perform well under 1,000 W irradiation, but also bring optimal yields at 700 and 400W irradiation

- SUNfarming regularly determines the degree of EVA gel content by an external test institute to make sure the cross-linking between of the EVA is long-lasting
- the gel content should be above 67%
- the gel content of SUNfarming quality modules is above 75%

5. Potential Induced Degradation Test (PID)

- additionally SUNfarming modules are regularly PID tested by independent test institutes

6. Peel Test

- SUNfarming regularly orders peel tests in external test institutes to check the force which is necessary to separate the encapsulation material from the other materials like cell, glass, back sheet

7. Mandatory certificates/ warranties for SUNfarming Partnership

- Re-insurance of the linear performance warranty can be purchased on demand
- Registration according to WEEE / Elektro G by e.g. take-e-way or PV Cycle
- IEC 61215, IEC 61730, UL 1703 and CE certification
- ISO9001 : 2008 Quality management system
- ISO14001 : 2004: Standards for Environmental Management System



8. Additional certificates

- additional certification by TÜV Rheinland for ammonia resistance and salt mist corrosion resistance
- increased maximum surface load capacity up to 6000 Pa certified by TÜV Rheinland



- High performance modules made of poly- and monocrystalline silicon cells
- Manufacturers product warranty for 10 or 12 years
- 25-30 years linear performance warranty of the manufacturer
- Re-insurance of the performance warranty can be purchased in demand
- Certificates IEC/EN 61215, IEC/EN 61730-1,2, UL1730, CE
- All modules are plus tolerated
- constant quality control during production and in the warehouse by the manufacturer and SUNfarming
- Independent quality control of each SUNfarming container by TÜV Rheinland or PI Berlin before shipping
- Junction boxes are fully waterproof (IP)
- plug-in (MC4 compatible)

