

Partial Discharge Test on reverse side foils of PV modules according to IEC 60664-1, IEC61730

10. April 2014

Company / Examined foil:

Madico Inc.	
Reflekt Lean	
Fluorocoating	10 micron
PET	51 micron
Adhesive	5 micron
PO	203 micron

Number of measurements: 10

Remarks: none

Extinction voltage		Deviation from the mean value (%)
Min. value in (V)	1133	-5.2
Mean value in (V)	1195	
Max. value in (V)	1250	4.6

The mean value minus the experimental standard deviation will be used to calculate the max. permissible voltage.

Experimental standard deviation: 36 V

Calculation of the max. permissible operating voltage on the basis of the ascertain values

Basis: IEC 60664-1
 $U_{max} = U_e \times 1,414 / 1,2 \times 1,25$

1.414 Calculation of the peak value

1.2 Safety factor (humidity, temperature, etc.)

1.25 Safety factor (double or reinforced insul.)

Maximum permissible system voltage	1093 VDC
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Responsible for Partial Discharge Testing

i.A.

i.V.

Dipl.-Ing. S. Menzler

Dipl.-Ing. L. Jakisch

 TÜV Rheinland Energie und Umwelt GmbH, Am Grauen Stein, 51105 Köln, Germany