

## Partial Discharge Test

on reverse side foils of PV modules  
according to IEC 61730

22 May 2006

Company / Examined foil:

<b>COVEME S.P.A.</b>		
<b>PAI137</b>		
Polyester (PET)	125 my	cell side
Adhesive	3 my	
Aluminium (Al)	9 my	outer side

Number of measurements: 10

<b>Extinction voltage</b>		Deviation from the mean value (%)
Min. value in (V)	640	-7,4
Mean value in (V)	691	
Max. value in (V)	769	11,3

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.)

<b>Maximum permissible system voltage</b>	<b>620 VDC</b>
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Testzentrum Energietechnik



Regenerative Energien

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