

# Environmental Tests and Characteristic Evaluations for PV Modules and Materials

## Summary

ANAC can provide customers with Environmental Tests and Characteristic Evaluations for PV Modules and Materials.

**Table of Environmental Tests**

Object		Test item	
Name	Size, cm	Name	Condition
Module	80~160 × 80~100	High-humidity/temperature test	85°C×85%RH
		Dew condensation icing test	-40°C⇔85°C/85%RH
		Temperature cycling test	-40°C⇔85°C
Single cell module	About 30×30	High-humidity/temperature test	85°C×85%RH
		Dew condensation icing test	-40°C⇔85°C/85%RH
		Temperature cycling test	-40°C⇔85°C
Material	Several ~ Several 10s	High-humidity/temperature test	85°C×85%RH
		Dew condensation icing test	-40°C⇔85°C/85%RH
		Temperature cycling test	-40°C⇔85°C
		Accelerated weathering test (Light source lamp: sunshine carbon arc ,UV carbon arc , Xenon arc, Super xenon,UV fluorescent, metal- halide )	UV radiation intensity : 0.4~1000W/m2 Temperature : ~ 110°C Humidity : 30-98%RH Presence of rainfall

**Table of Characteristic Evaluations**

Object		Test item		Testing machine
Name	Size, cm	Name	Condition	Name
Module	80~160 × 80~100	I-V in light	Irradiation light	Solar simulator
		I-V in dark	-	DC current source
A part of module	80~160 × 80~100	Electroluminescence	Current/Voltage	EL image camera
		Thermography	Current/Voltage	Thermography camera
Single cell	About 30×30			

※ Testing condition can be arranged according to customer's requests.

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