

High current
(Thick copper foil type)

Tracking resistance

High reliability

Applications
High Current
Power Supply System Board, Inverter, converter board (Power Conditioner and Battery of the Solar Power)

Double-sided copper clad

R-1786

For high current applications
Thick copper glass composite circuit board materials

Compatible with high current applications by thick copper foil usage (70μm).

CEM-3 grade material with high reliability
(Tracking resistance CTI ≥600V)

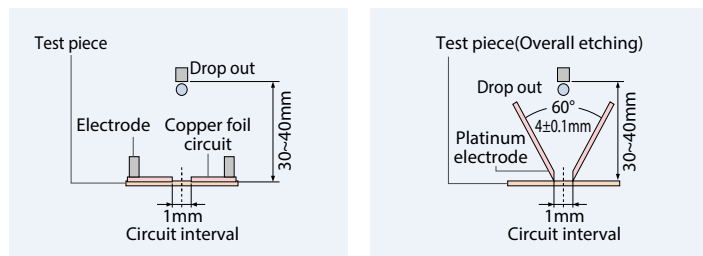
Tracking resistance

Pattern method (circuit method)	Product name / number	IEC method	Appearance of the test piece	
			Standard state	After test
175	CEM-3 R-1786	600		
-	Conventional FR-4 R-1705	240		

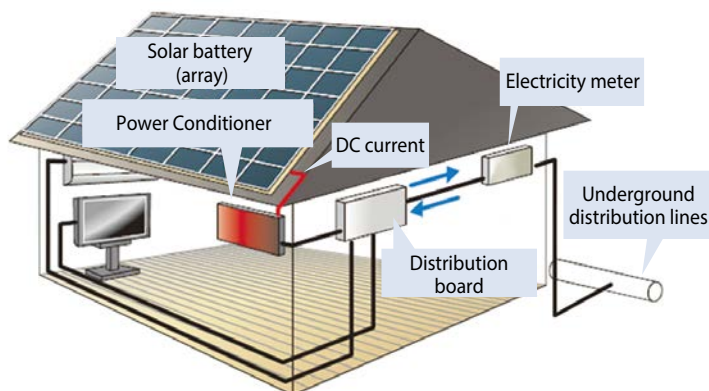
Test method

Drip 50 drops electrolyte (0.1% aqueous solution of ammonium chloride) towards the central circuit current of 1.0A flows in the voltage of 100V ~ 600V (25V interval).

Measure the voltage current flows for more than 2 seconds.



General configuration of solar power (personal residence)



General properties

Item		Unit	Unit	R-1786
Tg		Temp. rising rate:10°C/min	°C	140
Solder heat resistance		260°C solder float for 2min	-	No abnormality
Heat resistance	1oz	A	-	240°C 60min
CTE x-axis	α1	TMA	ppm/°C	25 (20)
CTE y-axis				28 (23)
CTE z-axis	α1	TMA	ppm/°C	65
Dk*	1MHz	C-96/20/65	-	4.5
		C-96/20/65+D-24/23		4.5
C-96/20/65		0.015		
C-96/20/65+D-24/23		0.015		
Volume resistivity		C-96/20/65	MΩ·m	1×10 ⁸
		C-96/20/65+C-96/40/90		5×10 ⁷
Surface resistivity		C-96/20/65	MΩ	3×10 ⁸
		C-96/20/65+C-96/40/90		1×10 ⁸
Insulation resistance		C-96/20/65	MΩ	5×10 ⁸
		C-96/20/65+D-2/100		1×10 ⁷
Water absorption		E-24/50+D-24/23	%	0.08
Flexural strength	Fill	A	N/mm ²	280
Peel strength	2oz	A	kN/m	2.2
		260°C solder float for 20sec		2.1
Alkari resistance		dipping(3min)	-	No abnormality
Flammability		A+E-168/70	-	94V-0

The sample thickness is 1.6mm.

The figure in parentheses is for the thickness of 0.8mm.

<Test method> JIS C6481 * IPC TM-650 2.5.5.9

The above data are typical values and not guaranteed values.