### PAPER PHENOLIC LAMINATE



#### ■特性

- 非難燃性類型材料
- 尺寸變化、彎曲度小
- 優越的打孔性
- 符合 UL 746E 規範及 RoHS 要求
- 中國製造

#### ■用途 APPLICATIONS

● 收音機、收錄音機、時鐘、數字處理機、電腦鍵盤等。 Radios, Radio-cassette recorder/players, Clocks, Word processor, Personal computer keyboards, etc.

### ■ 19 II

- Universal material for non-flame retardant
- Dimensional change and warpage are small
- Excellent pnuchability
- Meet UL 746E and conform to the request of RoHS

ETL-XPC-601

(N TYPE)

(For HB Grade Laminate)

• Made in China

**■**CHARACTERS

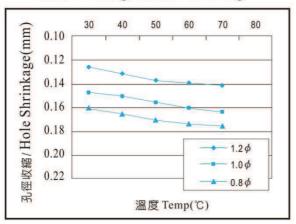
### ■一般物性 GENERAL PROPERTIES

試驗項目 Test Item		單位 Unit	處理條件 Condition	品管規格值 Guarantee Value	實測標準值 Standard Value
體積阻抗 Volume Resistivity		Ω-cm	C-96/20/65	Above 1 X 10 <sup>12</sup>	1 X 10 <sup>12</sup> ~1 X 10 <sup>13</sup>
			C-96/20/65+C-96/40/90	Above 1 X 10 <sup>11</sup>	5 X 10 <sup>11</sup> ~5 X 10 <sup>12</sup>
表面阻抗 Surface Resistance	接著劑面	- Ω	C-96/20/65	Above 1 X 10 <sup>10</sup>	$1 \times 10^{11} \sim 1 \times 10^{12}$
	Adhesive Surface		C-96/20/65+C-96/40/90	Above 1 X 10 <sup>9</sup>	1 X 10 <sup>10</sup> ~1 X 10 <sup>11</sup>
	積層板面		C-96/20/65	Above 1 X 10 <sup>9</sup>	5 X 10 <sup>9</sup> ~5 X 10 <sup>11</sup>
	Laminate Surface		C-96/20/65+C-96/40/90	Above 1 X 10 <sup>8</sup>	5 X 10 <sup>8</sup> ~5 X 10 <sup>9</sup>
絕緣阻抗		Ω	C-96/20/65	Above 1 X 10 <sup>10</sup>	1 X 10 <sup>11</sup> ~1 X 10 <sup>12</sup>
Insulation Resistance			C-96/20/65+D-2/100	Above 1 X 10 <sup>7</sup>	5 X 10 <sup>7</sup> ~5 X 10 <sup>8</sup>
介電常數(1 MHz)			C-96/20/65	Less than 5.5	4.3~5.0
Dielectric Constant		_	C-96/20/65 +D-24/23	Less than 6.0	5.3~5.8
散發因子(1 MHz)		_	C-96/20/65	Less than 0.05	0.035~0.046
Dissipation Factor			C-96/20/65 + D-24/23	Less than 0.08	0.050~0.060
焊錫耐熱性(260°C) Solder Heat Resistance		sec	А	Above 10	30~40
銅箔剝離強度	- 銅箔(35μm)	kgf/cm	А	Above 1.5	1.80~2.20
Peel Strength	1		S (260°C, 10 sec)	Above 1.5	1.80~2.20
彎曲強度 Flexural Strength		kgf/mm <sup>2</sup>	Α	Above 10	12~16
吸水率 Water Absorption		%	E-24/50+D-24/23	Less than 1.8	1.00~1.30
耐熱性 Heat Resistance		_	А	190℃ 30 min no blistering	190~195°C 30 min no blistering
難燃性 Flame Resistance (UL 94 method)		sec	A& E-168/70	94 HB	94 HB
耐藥品性 Alkali Resistance		_	Immersion in 3% NaOH 40°C (3 mins)	無異常 No abnormality	無異常 No abnormality
加工沖孔性 Punchability		_	А	Suitable temp. 50~70 ℃	GOOD
耐漏電破壞性 CTI (IEC 60112)		Volt	Α	≧600	≧600

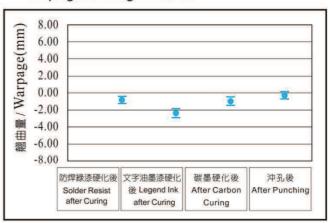
<sup>◎</sup>以上數據試片厚度 1.6mm (Note: Test specimen thickness is 1.6mm)

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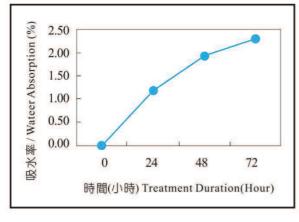
# ■打孔後孔徑收縮 Hole Shrinkage after Punching



# ■刷電路板加工時之彎曲 Wrpage During Process



# ■板材吸水率經時試驗 Moisture Absorption



## ■焊錫中耐熱之溫度特性 Characteristic of Solder Heat Resistance

