



# High thermal conductivity Glass composite circuit board materials

## 高熱伝導性ガラスコンポジット基板材料

**EcooL**

Double-sided **R-1787**

**Applications 用途**

LED lighting, LED-related equipment, Power supply application, Etc.  
LED 照明、LED 関連機器、電源機器など



Supporting thermal dissipation from PCB material that good for thermal conductivity property and processability because its resin board.

優れた熱伝導性により、基板の放熱を材料から貢献。樹脂基板ならではの加工性や設計のしやすさを実現

**Thermal conductivity**  
1.1W/m·K

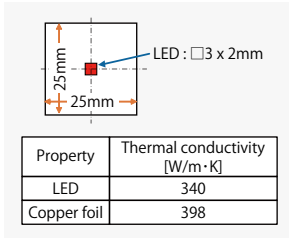
**CTI $\geq$ 600V**

**Excellent processability**

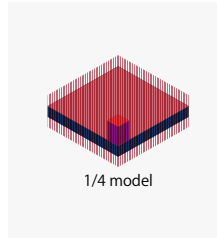
**LED thermal simulation LED放熱シミュレーション**

- Analysis  
To analyze the impact of material thermal conductivity to LEDs rising of temperature by using thermic fluid analysis software "STAR-CD"
- Assumed heat generation :0.4W
- Sample board thickness :1.0mm

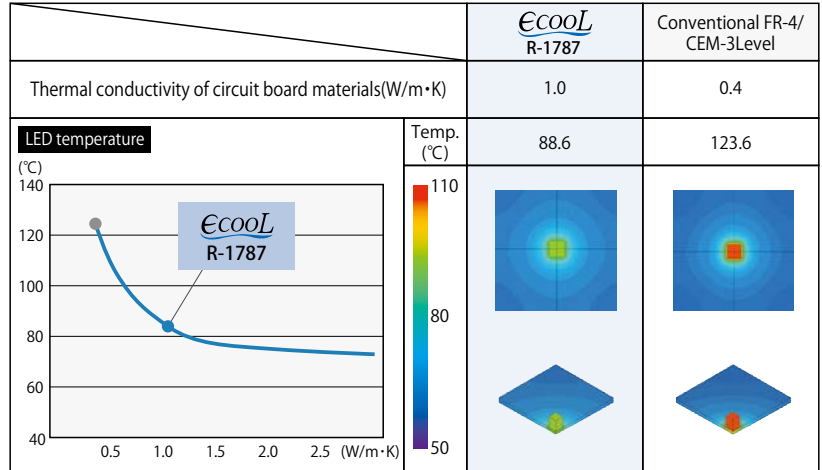
Size of test sample



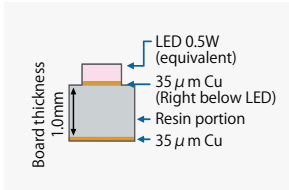
Analysis mesh



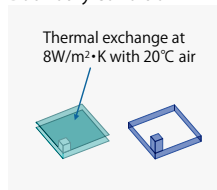
Simulation result



Cross section



Boundary condition



**General properties 一般特性**

Item	Test method	Condition	Unit	<i>EcooL</i> R-1787	Conventional CEM-3 R-1786
Thermal conductivity	Laser flash	A	W/m·K	1.10	0.45
Glass transition temp.(Tg)	TMA	Temp. rising rate:10°C/min	°C	140	140
Solder heat resistance	JIS C 6481	260°C solder float for 2min	—	No abnormality	No abnormality
Heat resistance	1oz JIS C 6481	A	—	230°C 60min	240°C 60min
Tracking resistance	IEC 60112	A	V	CTI $\geq$ 600	CTI $\geq$ 600
Insulation resistance	JIS C 6481	C-96/20/65	MΩ	1x10 <sup>8</sup>	5x10 <sup>8</sup>

The sample thickness is 1.6mm.

The above data are typical values and not guaranteed values. 上記データは当社測定による代表値であり、保証値ではありません。  
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