

# MICRO VCM TEST REQUEST AND DATA SHEET PER ASTM E-595-07

(Requestor please read, then furnish all information above asterisks.)

Requested by: **Ian R Mayoh** Phone: **00447766164454** **ian.Mayoh@ventec-europe.com** Date: **15/08/2013**

Material Identification (product name, number, description, classification, etc.):  
**VT-901, Tg250 (PI GPY) Polyimide PCB Laminate**

Manufacturer of Material (Name, City and State Address): **Ventec Electronics (Suzhou) Co., Ltd. 168 Xiangyang Rd., New District, Suzhou, P.R.C. 215009**

Material application (general usage, i.e. adhesive, coating, potting, etc.): **Base material for manufacture of high reliability Printed Circuit Boards**

J. O. Number/Project Name: \_\_\_\_\_ Request Infra-Red Spectra?  YES  NO  
 Originator Source/Code (other than Code 541): \_\_\_\_\_

Indicate processing required by GSFC Materials personnel. Include the recipe, cure(s), and special instructions to be performed.  
**None**

If material is to be tested in the "as received" condition, without further processing required, indicate in full the past history, recipe, cure(s), post cure(s), nomenclature of components, etc.

**This is newly manufactured polyimide resin based pcb laminate, fully cured during the manufacturing process and meets the requirements of IPC4101C slash sheets /40 /41 /42. The material was fully manufactured in our Suzhou facility, per the above address. Post manufacture, the copper cladding has been etched off otherwise there has been no further processing.**

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 CVCVM test specimen preparation and description: **Cut up & placed in boats**

Bar Position-CVCVM Test Number	<b>34009 (22)</b>	<b>34010 (23)</b>	<b>34011 (24)</b>
Initial mass, holder and specimen, gm	0.341386	0.331028	0.308550
Mass of holder, gm	0.035211	0.036166	0.033921
Initial specimen mass @ 50 %RH, gm	0.306175	0.294862	0.274629
Final mass, holder & specimen, gm	0.339500	0.329221	0.306861
Total mass loss, specimen, gm	0.001886	0.001807	0.001689
Percent TML, specimen	0.62%	0.61%	0.62%
Average value TML	*****	<b>0.61%</b>	*****
Mass after 50 %RH re-soak, 23 C, 24hr, gm	0.340475	0.330031	0.307638
Total mass, water vapor regain, gm	0.000975	0.000810	0.000777
Percent water vapor regain	0.32%	0.27%	0.28%
Average value WVR @ 50 %RH	*****	<b>0.29%</b>	*****
Initial mass, collector, gm	1.782003	1.815231	1.891823
Final mass, collector, gm	1.782027	1.815240	1.891850
Collected mass – CVCVM, gm	0.000024	0.000009	0.000027
Percent CVCVM	0.01%	0.00%	0.01%
Average Value CVCVM	*****	<b>0.01%</b>	*****

**Remarks:** CVCVM (unweighable) on separator plate to \_\_\_\_\_ mm diameter. CVCVM appearance as follows: **X** is not detectable on collector plates.

- thin;  heavy; \_\_\_\_\_ color;  transparent; \_\_\_\_\_ colored liquid;  
 opaque;  matte;  interference fringes;  foggy;  distorts eye reflection;  smooth;  smoky;  splotchy;  partially opaque;  
 clear liquid;  liquid runs in excess; Deposit covers \_\_\_\_\_ % of collector disc.

Specimen appearance after test:

**No Visible Change**

Test started **9/17/13** Test completed: **9/18/13** Period **24** Hrs. Pressure **3.9X10<sup>-7</sup>** Torr

Specimen Temp. **124.8** °C Collector Temp. **24.6** °C Analyst **Dewey Dove & Debbie Thomas**