

Solid Dielectric Task Force – Minutes October 13, 2008 – Calgary

Chairman - Chris Ambrose
Secretary - F. Soulard

- 1) The meeting was called to order at approximately 3:50 PM.
- 2) The roster was circulated with the request that any needed additions or corrections be made.

There were 14 members present, one excused member, and 16 guests.

Larry Putman has requested to become a member of this TF and has been accepted.

- 3) The members and guests made their traditional self-introductions.
- 4) The IEEE slides on patents and inappropriate discussions were presented.
- 5) The minutes of the last meeting were briefly presented, then accepted.
- 6) The task force theme from the October 2005 meeting was reviewed.
- 7) The progress to date since the last meeting was presented by Chris Ambrose, with information on how to access the private web site for the SDTF

<http://grouper.ieee.org/groups/sdtf/>

<http://grouper.ieee.org/groups/sdtf/private/>

username: sdtf-pr

password: <omitted > - contact the SDTF chair for password

- 8) Presentations were made by:
 - a) Powell – Transportation Vibration test Mil Spec method;
 - b) G&W - Vibration
 - c) ABB - Vibration, Cycling temperature test
- 9) A discussion ensued that vibration is not a material issue, specific to solid dielectrics, but a general product issue, although it can be applied to a product standard

Multi-condition of stress test on dielectric is specific to encapsulated equipment

It was noted that IEEE 386 also covers the multi test.

The Task Force agreed that we should be looking as tests and procedures which specifically apply to Solid Dielectric materials, which brought up the next issue –

- 10) The Task force agreed that we need to have a better definition of what we mean when we refer to “Solid Dielectrics”, or, more specifically, what we DO NOT MEAN

The Task Force agreed that we will specify that in this case, Solid Dielectric will refer only to polymeric materials (preliminary definition below) and will specifically exclude porcelain or glass insulation.

The Task Force believes that IEC 60815-3, page 10 offers a good starting point.

- 11) The meeting was adjourned at 5:30 PM.

Additional follow-up work completed:

- A) Based on comments from # 10 above, Chris and Mietek developed the following proposed definition:

Solid Dielectric insulation, as used in this case, consists of polymeric dielectric materials, such as silicone rubbers, EPDM rubbers, cross-linked EVA, epoxy resins, and polyurethanes, as primary insulation for the live (energized) parts.

- **This definition specifically excludes ceramics, porcelain, glass, air, SF6, and oil as primary dielectric materials.**
- **In this definition, primary insulation means that this insulation material is used as a main insulating medium providing the dielectric function of the equipment.**

- B) Chris requested Matt supply to the Task force a copy of IEEE Std 98-2002 – Standard for the Preparation of Test Procedures for the Thermal Evaluation of Solid Electrical Insulating Materials.

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