Technical Definition

Dynamic Mechanical Analysis – DMA



Instructions to participant laboratories

Please read carefully these instructions **BEFORE** starting the tests.

- 1. Five 35x10mm composite specimens are supplied to each participant 4 results must be provided.
- 2. Participants shall ensure all test specimens are dried. Drying conditions : 1 week at 105°C
- 3. All tests shall be performed in accordance with the requirements of PrEN 6032 (1995) and AITM 1-0003 issue 3.
- 4. Tests shall be performed under single cantilever geometry at 1Hz frequency, 15μm total amplitude (peak to peak) and 5°C/min temperature increase.
- 5. Each participant is required to determine the following parameters:
 - Tg-onset

The Tg-onset is defined as the temperature of the intersection of extrapolated tangents to the storage modulus curve before and after the beginning of the glass transition event.

- **Tg-loss** The Tg-loss is defined as the temperature where the diagram loss modulus versus temperature has its maximum.
- **Tg-peak** The Tg-peak is defined as the temperature where the diagram tanδ (damping) versus temperature has its maximum.
- 6. The following information is to be reported:
 - DMA equipment brand and model
 - Sample dimensions and holding technique (if different from standard request)
 - Test results, obtained on each tested sample, of the temperatures as detailed in section 5
- 7. Testing shall commence as soon as test specimens are received. All participant laboratories must supply results by November 15th 2014.
- 8. Instructions for submission of results are detailed on the website:

https://ptpscheme.com/

- 9. To ensure confidential treatment of results in the final report, each participant lab will be provided with a unique identity number at the moment of his registration to the program.
- 10. The sponsors could ask you proofs of your records and analyses, so be sure to conserve data, curves and specimens.