

**2023-2024 Fall MLZ447 Exp#4**  
**Instructions for Thermal Characterization of Polymeric Materials Lab. Report**

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Report submission due by **20.11.2023 - 24.11.2023**  
(on the day of lab. classes for each group)

Turnitin Class ID: 40958733  
Turnitin Enrollment key: Mlz447

Link of experiment video

[https://www.youtube.com/watch?v=NBzxEBpBhDg&list=PLQUb7RtOnw8KR8KgcPrbM8iu7jnc083SO&index=5&t=146s&ab\\_channel=EskisehirMatSE](https://www.youtube.com/watch?v=NBzxEBpBhDg&list=PLQUb7RtOnw8KR8KgcPrbM8iu7jnc083SO&index=5&t=146s&ab_channel=EskisehirMatSE)

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The report should be typed by a computer in English and consist of:

**1. Cover Page (uni logo, dept., course info, group, exp., instructor, ID, name)**

**2. Experimental Procedure**

- a) Materials and equipment
- b) Sample preparation and experimental procedure

**3. Results and Discussion**

- a) Name the thermal events and their approximate temperatures, which can be induced from DSC graph given below.
- b) What is the possible class of polymer whose DSC graph given below (e.g., thermoplastic or thermoset)? Explain the reasons relating to structure.
- c) How  $\Delta H_c$  can be calculated using a raw DSC data? Explain in detail with unit conversions. Remember that DSC graph obtained at first has Y and X axis with units of W/g and  $^{\circ}\text{C}$ .
- d) Why thermal erasing is recommended during DSC analysis? Explain the possible reasons.

