



# **DMA characterization of “overheated” CTD101K plates cured in open and closed mold**

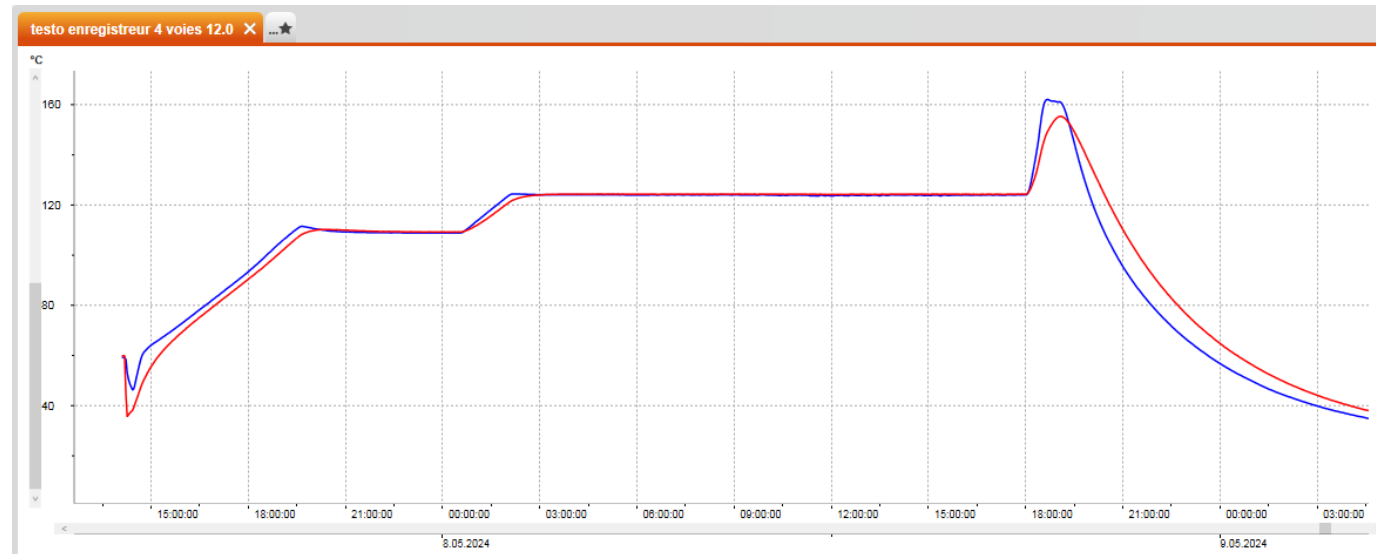
## **Polymer laboratory meeting**

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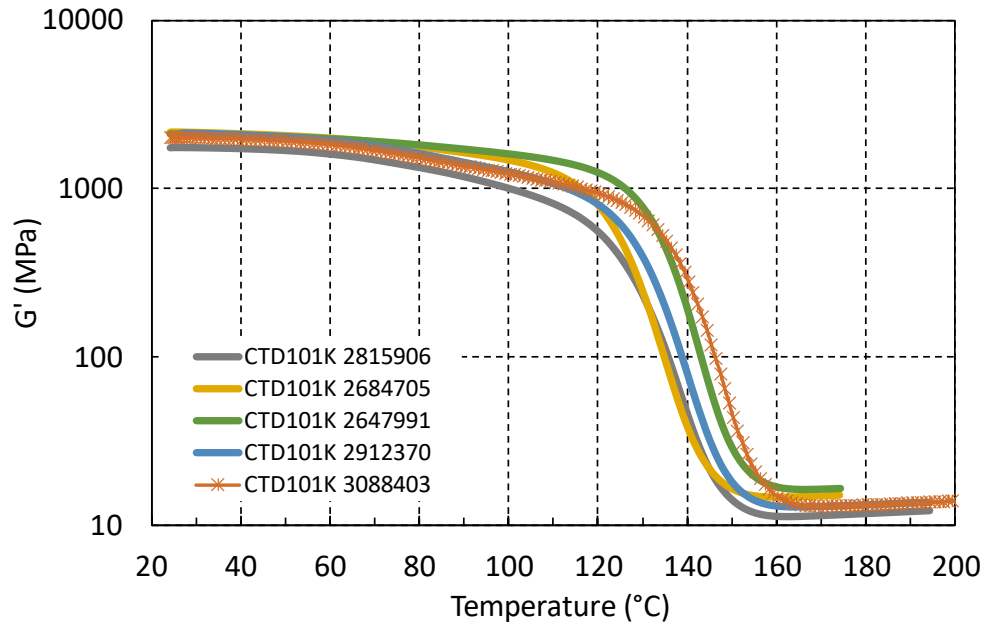
16/05/2024

# Experiment

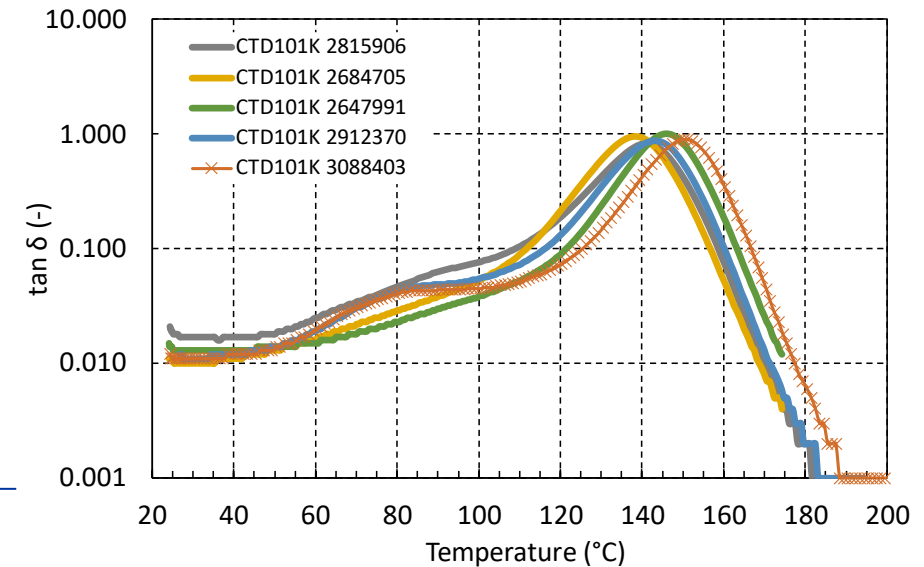
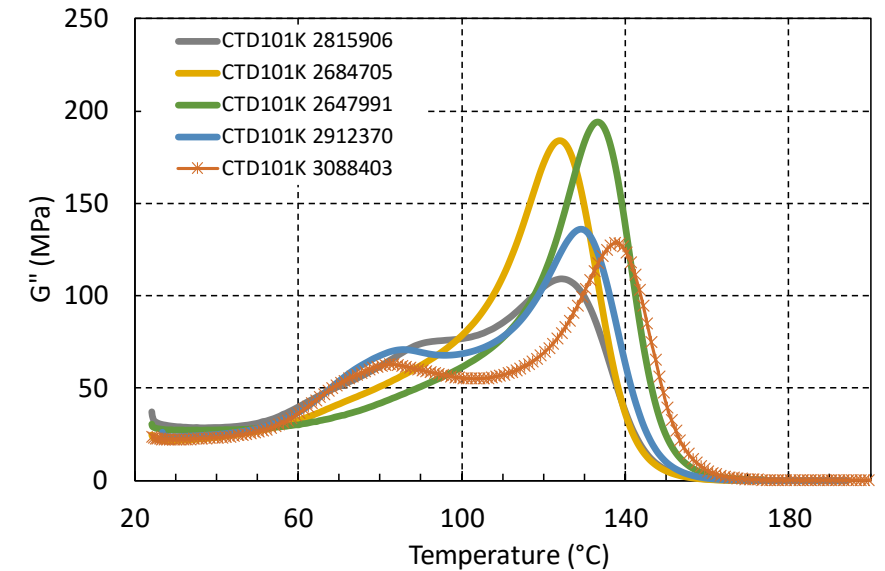
- Cedric produced 2 CTD101K plates to assess the effect of a temperature spike at the end of thermal curing
- One of the plates was cured in an open mold and the other via vacuum impregnation (closed mold) to also compare the effect of curing configuration



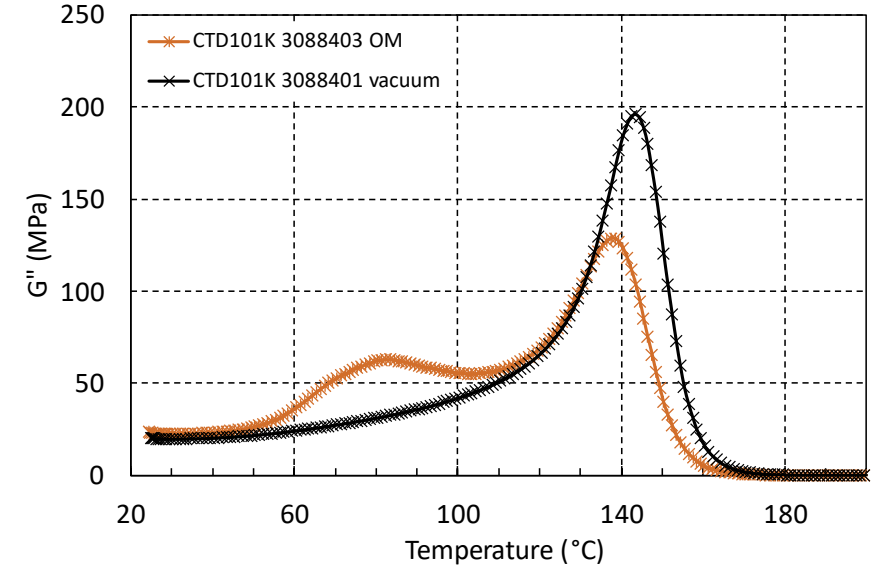
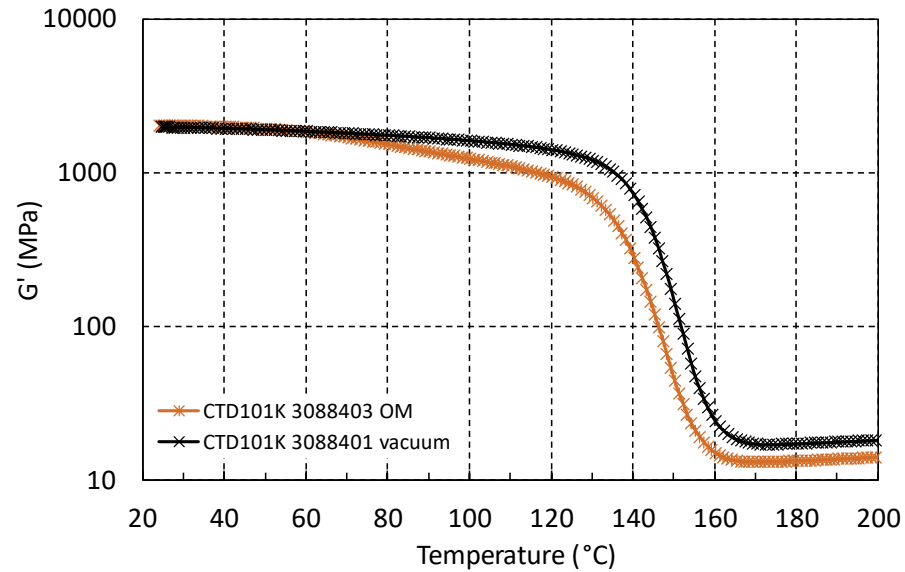
# DMA comparison with other CTD101K batches



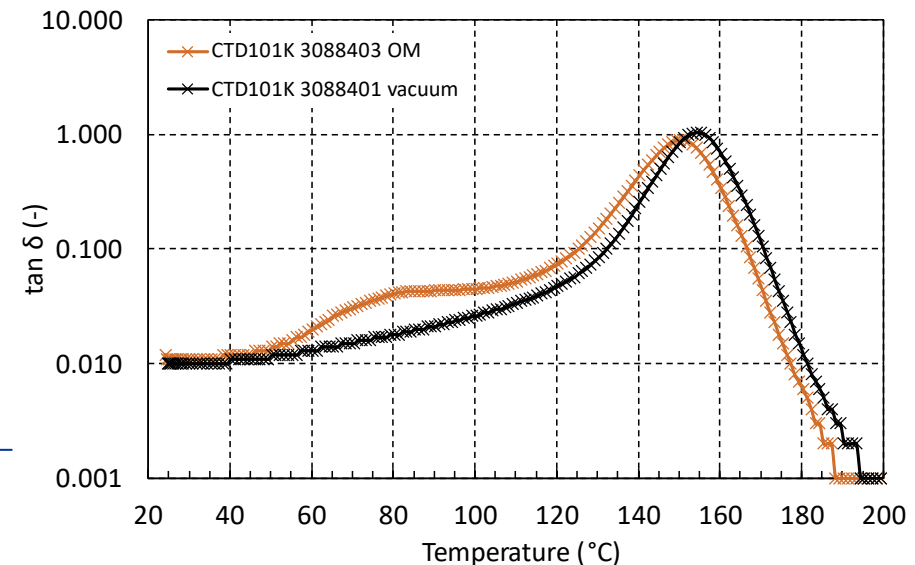
- The DMA temperature sweep of the “overheated” CTD101K sample is comparable to other previously produced and tested plates



# DMA comparison between open and closed mold curing



- Curing in a vacuum impregnated closed mold configuration seems to lead to a more complete curing
- This is potentially related to interaction with oxygen when cured in an open mold



# References

DMA report for assessing curing of CTD101K with temperature spike at the end of the thermal curing

<https://edms.cern.ch/document/3091154/1>

DMA report comparing effect of curing in open and closed mold

<https://edms.cern.ch/document/3090189/1>

Sample plate production report of open mold cured CTD101K

<https://edms.cern.ch/document/3088403/1>

Sample plate production report of close mold (vacuum impregnated) cured CTD101K

<https://edms.cern.ch/document/3088401/1>



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