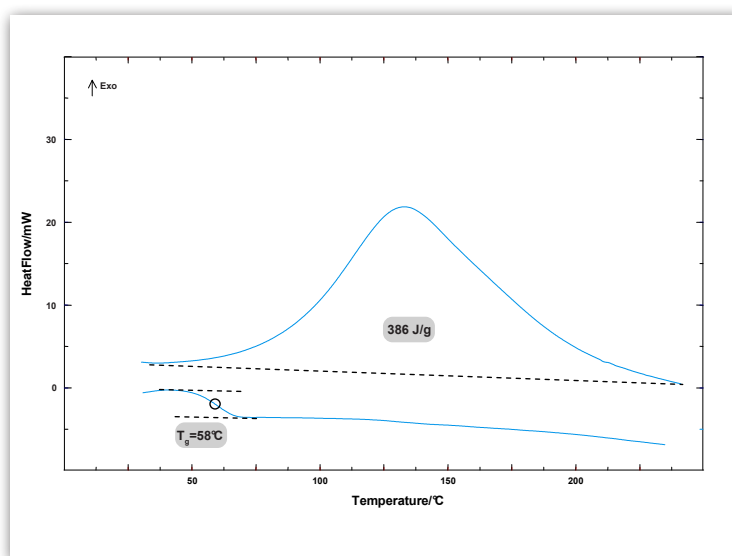


## Curing of an epoxy resin

### INTRODUCTION

The control of curing of epoxy resin is a very common test in the field of polymers : it enables the evaluation of the curing rate of a resin and to determine its glass transition. SETLINE DSC & DSC+, with their great facility to perform such analyses, are particularly well-adapted tools.



### EXPERIMENT

**Sample:** epoxy resin  
**Experimental conditions:** 25.2 mg  
**Crucible :** Al  
**Experimental procedure :** Two successive heatings at 10 K/min.

### RESULTS AND CONCLUSION

During the first heating, the curing of the resin leads to an exotherm. By integrating this isotherm it is possible to do comparative measurements with a resin with a known curing rate and then to determine the curing rate of the resin. During the second heating, the glass transition ( $T_g$ ) of the cured material is observed at 58°C.

### INSTRUMENT

SETLINE DSC / DSC+

-170 to 700°C



- EASY TO USE WITH ROBUST SENSOR TECHNOLOGY ensuring quality, consistent and reliable data
- AVAILABLE WITH HIGH PRESSURE CRUCIBLES up to 500 bar at 600°C
- REASONABLY PRICED INSTRUMENT & SENSOR for easy, cost effective replacement
- LOWER COST OF OWNERSHIP through simplified maintenance and a Replacement Parts Guarantee
- TECHNICAL & APPLICATION SUPPORT for fast expert help with any questions
- CALISTO 2.0 EXCLUSIVE SOFTWARE for intuitive and easy data handling