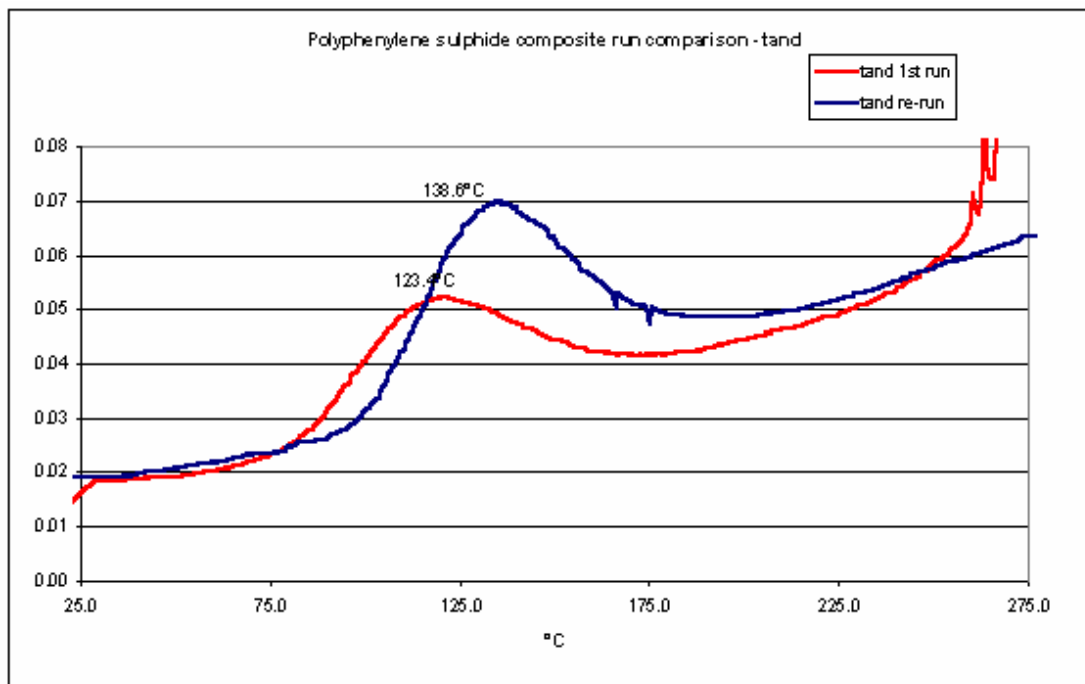




19. Polyphenylene Sulphide Composites-Quench cool study

Instrument: Tritec 2000 Dynamic Mechanical Analyser
Sample: Glass Filled Composite
Geometry: Single Cantilever Bending
Frequencies (Hz): 1.0
RMS Strain: .03%
Thermal profile: 5°C/min thermal scans
Purge: 25ml/min N₂



Comments:

The data illustrated here shows the results obtained on two runs on the same sample. At the end of the first run, the oven cover was quickly removed and the sample immersed into iced water by rotating the Tritec head vertically downwards and raising the ice bath around the sample using the Fluid Bath attachment.

The higher tan delta in the second run shows that more amorphous phase is present in the sample after the quenching exercise.

This data shows a unique capability of the Triton DMA. The ability to quench cool in situ and with relative ease allows process imitation within the instrument to a greater degree possible compared to other commercial instrumentation.

