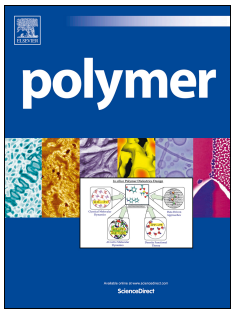
Accepted Manuscript



Mechanical and thermal behavior dependence on graphite and oxidized graphite content in polyester composites

P. González García, R. Ramírez-Aguilar, M. Torres, Edgar A. Franco-Urquiza, J. May-Crespo

PII: S0032-3861(18)30573-1

DOI: 10.1016/j.polymer.2018.06.069

Reference: JPOL 20706

To appear in: *Polymer*

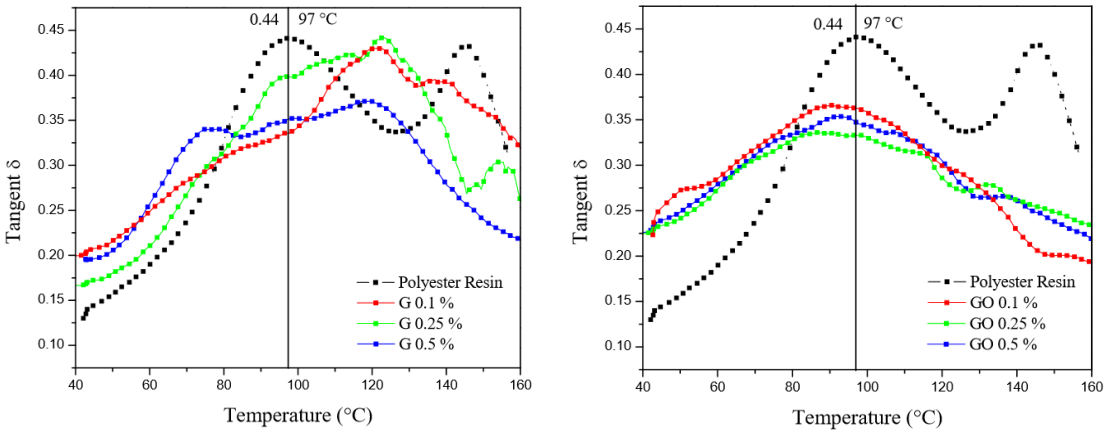
Received Date: 3 April 2018

Revised Date: 30 May 2018

Accepted Date: 24 June 2018

Please cite this article as: García PGonzá, Ramírez-Aguilar R, Torres M, Franco-Urquiza EA, May-Crespo J, Mechanical and thermal behavior dependence on graphite and oxidized graphite content in polyester composites, *Polymer* (2018), doi: 10.1016/j.polymer.2018.06.069.

TAN DELTA FOR POLYESTER RESIN AND POLYESTER COMPOSITES (G-GRAPHITE AND GO-GRAPHITE OXIDE)



DESCRIPTION

It is possible to observe a maximum peak at 97 °C and a second peak around 145 ºC for the polyester resin. However the presence of graphite fillers seems to inhibit the formation of the second peak. When the fillers are introduced into the thermoset polymer, the glass transition temperature curve changes its shape and it is considerably shifted. However, graphite oxide tends to agglomerate, which causes a reduction in the molecular movement of the polyester chains.