

Abstract Submitted  
for the TSF06 Meeting of  
The American Physical Society

**Physical and Tribological properties of fluorine functional group containing epoxy resin cured with polyamine** WUNPEN CHONKAEW, WITOLD BROSTOW, KEVIN MENARD, University of North Texas — A fluoro-epoxy monomer was synthesized and blended with commercial diglycidyl ether of bisphenol A in the ratio of 2.5 to 20 %. The products obtained were cured with polyamine hardener at 25°C. The dynamic mechanical and physical properties, such as curing behavior and thermal stabilities, were investigated and compared with pure commercial epoxy system. For the tribological behavior, the scratch depth and friction determination were performed. We have found that the friction of all blend systems is lower than for the pure commercial system. However, only blend systems with low percent of the fluoro-epoxy monomer show the improvement in scratch resistance.

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Date submitted: 08 Sep 2006

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