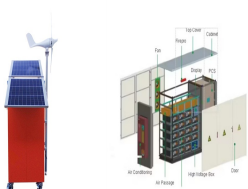


POLYPROPYLENE DMA STORAGE MODULUS



As an example, Fig. 8 shows the evolution of storage modulus and damping factor after different peak load initiation stresses for the sample in the 90° direction (R90). As shown ???



PP: polypropylene; TCF-PP: textile-grade carbon-fiber-reinforced-polypropylene; DMA: dynamic mechanical analysis. from publication: Characterization of textile-grade carbon fiber ???



Introduction. Thermoplastic and thermoset solids are routinely tested using Dynamic Mechanical Analysis or DMA to obtain accurate measurements of such as the glass transition temperature (T_g), modulus (G'') and damping ($\tan \delta$). ???



Dynamic mechanical analysis was first developed in the early to mid-1900s for determining the viscoelastic properties of plastics over a range of temperatures and test rates. Viscoelasticity is the property of a material that ???



Storage modulus E' ??? MPa Measure for the stored energy during the load phase The loss factor $\tan \delta$ and the according Young's modulus of various materials, deduced via DMA at a temperature of 30 °C. Table 2: Abbreviations of terms ???

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?????????(modulus)?? 1/4 loss factor(tan??)??? ?????????? ?? 1/4
 ?????? ?????????????????? (temperature-frequency dependant).
 ?????????????? ?? ?????? ?? 1/4 ?????? ? ??? ??????????????????
 0.1MPa?????? 10MPa????????? ???



Depending on the edge geometry used, the polypropylene fabric
 withstands a load amount by a factor of 3.3 to 8.9 higher than the
 nonwoven polypropylene, the nylon fabric withstands a load amount



The DMA technique has been widely used to calculate storage modulus
 (E''), loss modulus (E''), and loss factor ($\tan \delta$) [1] [3] [5] [9] . Many studies
 have been performed around the globe studying different contributions
 that ???