

DYNAMIC MODULI OF FLUOROCARBON COMPOUNDS

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ABSTRACT

Viscoelastic polymers are frequently used to eliminate harmful or annoying noise fields in an environment which contains solvents or gases at elevated temperatures. The frequency range over which the particular polymer performs as a sound isolator, an absorber, or a damper may vary by orders of magnitude. Hence, a polymer family which is resistant to many common solvents and exhibits high loss factors distributed over several frequency decades covering the audio band should find many applications. Fluorocarbon elastomers such as copolymers of vinylidene fluoride and hexafluoropropylene are such a family. Presented in this paper will be the results of an initial examination of the dynamic moduli, consisting of the elastic and loss components, of six different commercially available family members. The magnitude of the peak loss factor is found to vary between approximately 1.1 to 1.4, and its location by more than two decades in the frequency domain.

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PUBLICATION**

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