



STUDY OF THE VISCOSITY OF SOME BIODIESEL – DIESEL OIL BLENDS

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Abstract

Biofuels represent a possibility for renewable resources conversion, storage and distribution. Today, diesel oil is commercialized only blended with biodiesel, and according to the 30/2003 Directive of the EU, 5.75% of the total fuels used in the transportation sector must be represented by biofuels by the end of 2010. Biodiesel can be produced from vegetable oils, animal fats and used oils. Viscosity is one of the most important characteristics of liquid fuels. The viscosity of liquid fuels influences especially the atomization process, the first stage of fuel combustion in a diesel engine. Several models for the prediction of the viscosity of individual fatty acids and vegetable oils are presented in the literature, together with models for predicting the viscosity of diesel fuel and pure biodiesel. Some models were developed to predict the viscosity of mixtures of diesel fuel and selected biodiesel types. In this paper a model for predicting the viscosity of biodiesel – diesel oil blends is presented.

Key words: biodiesel, blends, viscosity

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