

Low-Temperature Miscibility of Ethanol-Gasoline-Water Blends in Flex Fuel Applications (TU Denmark)

TU Denmark (ISAF XVII, China, December 2008): The miscibility of ethanol/gasoline/water blends at $-25\text{ }^{\circ}\text{C}$ and $-2\text{ }^{\circ}\text{C}$ was investigated experimentally. Furthermore, the maximum water content was found for ethanol Flex Fuel blends, which must be fully miscible with a gasoline-rich flex fuel blend. The results strongly indicate that blends containing azeotropic ethanol/water (95.6 mass% ethanol) could be used as flex fuel blends together with gasoline at ambient temperatures of $-25\text{ }^{\circ}\text{C}$ and $-2\text{ }^{\circ}\text{C}$, without phase separation occurring..... (view the full paper)