

From: [Nancy McAtee](#)
To: [Aaron Mccarter](#)
Cc: [Michael Budinski](#)
Subject: Email report-ERA24FA127 (Unknown material found in oil filter strainer)
Date: Monday, December 23, 2024 5:28:32 PM

Aaron,

The strands of an unknown material were found in oil filter strainer from the accident aircraft and submitted to the Materials Laboratory for examination. The unknown black material examined using a Fourier Transform Infrared (FTIR) spectrometer with a diamond attenuated total reflectance (ATR) accessory in accordance with ASTM E1252-98 (American Society for Testing Materials E1252-98: *Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis*). The spectrometer was used to collect and process infrared wavelength absorbance spectrum of the unknown material. The pattern of spectral peaks was consistent with straight chained aliphatic hydrocarbon. A spectral comparison library search was then performed on the unknown material spectrum to facilitate the identification of material. The library search found the unknown material to be a very strong match for polyethylene. Polyethylene is a common polymer material found in fuel lines, gaskets, and electrical wire insulation as well as many other uses.

If you have any questions, please let me know.

Nancy B McAtee
Senior Chemist
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