NEWSLETTER

Tamson Instruments

November 2019

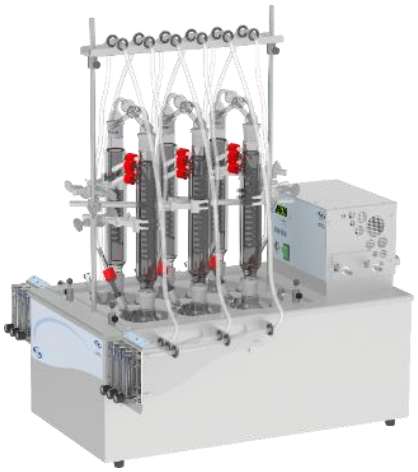
New Oxidation bath for CEC L-109-14

Biofuels are mandated in many markets. Typically diesel fuels in European markets contain up to 7% bio-components (B7) - some closed fleets are using B30. The European Renewable Fuel Directive1 is mandating a minimum of 10% bio-content in transport fuels in 2020. By gradually increasing that percentage, manufacturers can adapt the car engines to the new biofuel. Bio-components in diesel fuel can promote engine oil oxidation, which could promote viscosity increase and deposits.

For this reason, CEC published a new oxidation test method (CEC L-109-14) for engine oils operating in the presence of biodiesel fuel. The motivation for this oxidation test is to provide additional protection for passenger cars and commercial vehicles running on biodiesel by covering a temperature range currently not covered in the available test methods. The objective is to provide protection against the consequences of biodiesel induced engine oil oxidation. The selected test conditions should take the different patterns and engine hardware into account.

For this oxidation test, the sample is blended with 7% of B100. This mixture and 10 mL of an ion catalyst solution are poured in a flask which is heated to 150°C in an oil bath while an air flow of 10 L/h is fed through the sample. The standard test duration is 216 hours with intermediate samples taken after 72, 144, and 168 hours. The change in kinematic viscosity @ 100°C and oxidation level (FTIR) of the sample are evaluated.

Tamson Instruments is the *first* manufacturer providing a six position oil bath for this test method. The robust and well insulated apparatus is standard delivered with six sets of glassware. Stand-rods with clamps to hold the glassware in the same position, six flowmeters, and tubing are standard included in the apparatus. Other accessories required for this test method are supplied by Tamson as well. Please visit https://tamson-instruments.com/astm-equipment/cec-l-109-14 to download the specification sheet or contact us.



Verification fluid for filter blocking tendency tests conform ASTM D2068 / IP 387

Tamson supplies a verification fluid for filter blocking tendency tests according to procedure B of IP 387 / ASTM D2068. It is the only one commercially available which is non-hazardous to ship, saving a lot of transport costs.

It is recommended to use a certified verification fluid with a nominal FBT = 2.00, a certificate stating the precise value is supplied with the verification material. Compared to the only competing brand, we deliver a FBT value close to the nominal value of FBT = 2.

Certificate of analysis is standard included and provided by an independent accredited reference material manufacturer, so the certificate is not provided by the manufacturer of the FBT apparatus. Traceability to the SI Units and the ITS-90 temperature scale is provided for the volume, pressure, temperature and timing measurements via instrument calibration to national and international standards. A non-diesel based formulation is used for this verification fluid, providing an excellent stability of the sample.

Please see also our website: https://tamson-instruments.com/fbt-verification-fluid-for-procedure-b

We keep it cool with an exceptional performance

Powered by Dutch Technology