

KES

Method for Determining
Oxidation of Lubricants

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1. Scope of Application

This standard shall prescribe about usage and method for determining oxidation of driving lubricants by using infrared Spectro Photo Meter.

2. Apparatus and Implement

- (1) Infrared Spectro Photo Meter
- (2) Fixed Cell : 2 E13
- (3) Scanner : 5 ml
- (4) Beaker : 100 ml

3. Reagent

Toluene, 1st grade is selected as reagent.

4. Measurement Condition

- (1) Scan Time : 6 minutes
- (2) Gain : 1.5
- (3) Cell : KRS-5 (Fixed Cell)
- (4) Cell Thickness : 0.1 mm
- (5) Light Source : 2

5. Operation

- (1) Put the new oil into the containing side and used oil⁽¹⁾ into the sample containing side by using the scanner. Then, fix the cell.

Note⁽¹⁾ If the oxidation of sample is too high not to measure the transmittance, measure the oxidation by diluting certain amount of toluene and record.

Example : The case of diluting with the ratio of sample 1 : Toluene 1

$$\text{Oxidation(\%)} \times 2$$