

KES

**Test Method of Anti Water
for Addition of Engine Oil**

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1. Scope of application

This standard is a method to evaluate safety of water against engine oil addition.

2. Equipment and tool

- (1) Centrifugal separator : Arrangeable of 5000 rpm.
- (2) Beaker : Capacity of 500cc.
- (3) Pipette : Capacity of 10 ml and the minimum notch mark should be 1 ml.
- (4) Stirrer
- (5) Centrifugal separating cylinder : Capacity of 50cc.
- (6) Dry oven : Maintainable to 120 ± 3 °C.
- (7) Electric furnace

3. Manufacturing

- (1) Put 95g of treatment in the 500cc beaker and add 5 ml of distilled water.
- (2) Stir this mixture in the speed of 5000 rpm to make it emulsify.
- (3) Put emulsified treatments in 500cc centrifugal separator, and centrifugal separate for 30 minutes in 2000G.

Estimate G by following this expression.

$$G = \frac{V^2}{R} \times \frac{1}{g}$$

In this expression, V : Speed for outer part (m/sec)

R : Diameter of rotating part.

G : Acceleration of the gravity 9.8 m / sec^2

- (4) Separate oil's upper part and if there's any moisture in the oil, apply heat with test treatment in 120 ± 3 °C, until all moisture vaporizes.