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**ANTI-ICING
 ADDITIVE
 TEST KIT**

**BULLETIN 145
 (03-20)**

MODEL B/2HB™ ANTI-ICING ADDITIVE TEST KIT

This complete kit provides a quick, easy method for determining the volume percent (%v.) of anti-icing additive (FSII) in jet turbine engine fuels.

INEXPENSIVE TO OPERATE

Requires only:

- 200 ml sample of fuel to be tested
- An ounce of potable water
- One man's time for 12 minutes

CONVENIENT - LIGHTWEIGHT

Refractometers that were manufactured before July 2003 have two scales: one was for DiEGME, the other for EGME. The EGME scale has now been eliminated because that additive is no longer used in aviation fuels.

TEST TO ASTM D5006

A small amount of water is used to remove the additive for testing.

NEW DESIGN

We now have a new visual optical refractometer, a high-quality device made by a Japanese optics company at a lower cost than previous direct reading refractometers!



NOTE: The graduated scale is labeled DiEGME and it reads the true volume percent directly. **No correction or mathematics needed.**



HOW TO ORDER

SC-B/2HB-C-4	Complete visual refractometer kit
SC-B/2HB-C2	Visual refractometer only
SC-B/2-F1	Replacement separator funnel

DIGITAL REFRACTOMETER



Using the same extraction apparatus and method. Operator error is minimized and the test is faster. You can buy it separately or in a kit. The test method instructions are included.

Part Number	SC-B/2HB-3D
Complete Kit	SC-B/2HB-C-3D

FAST ▪ SAFE ▪ SURE

IMPORTANT INSTRUCTIONS

This test kit provides the necessary equipment for determining the volume percent (%v.) of anti-icing additive, known as AIA, FSII, PRIST®, or DiEGME in turbine engine fuels.

VISUAL REFRACTOMETER TEST METHOD

Digital refractometer test method instructions differ and are included with the unit.

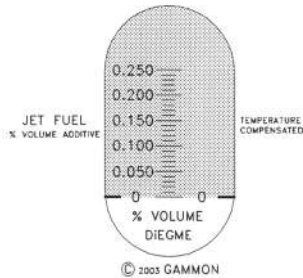


Figure 1

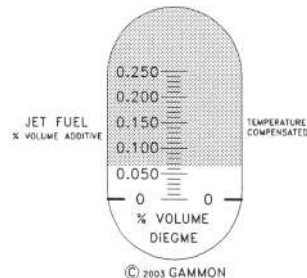


Figure 2

- STEP 1** In a clean and dry container, procure a 200 ml sample of the fuel to be tested.
- STEP 2** Set up the ring stand. Fill one of the aluminum dishes half full of water (tap water is satisfactory)
- STEP 3** For the optical refractometer, open the cover of the refractometer window, make certain it is clean, and apply one or two drops of water to it from the aluminum dish. Close the cover and look through the eyepiece to observe the location of the shadow line on the graduated scale. The eyepiece can be rotated for clarity. Adjust the set screw (in the middle of the nameplate) so that the shadow line intersects the zero line of the scale. See Figure 1 for a typical condition of a correctly zeroed instrument. Clean the cover and window.
- CAUTION:** Do not turn the adjusting screw until you read and understand the manual for this refractometer. Turning the adjusting screw improperly can damage the instrument and void the warranty.
- STEP 4** Using the graduated cylinder, transfer exactly 160 ml of the fuel to the separator funnel that you have placed in the ring stand.
- STEP 5** Using one of the piston pipettes, add exactly 2 ml of the same water to the separator funnel from the aluminum dish. Cap the funnel and shake vigorously for five minutes. Then place it in the ring stand to let the water settle to the bottom.
- STEP 6** When some water has collected at the bottom, carefully rotate the separator funnel drain cock so that a trickle of settled water can be taken in a clean, dry, aluminum dish.
- STEP 7** Using the same technique as in Step 3, transfer one or two drops from the aluminum dish to the refractometer prism; close the cover and observe the position of the shadow line. Figure 2 shows a typical test result for fuel containing 0.065% DiEGME.
- STEP 8** Properly dispose of the liquids. Wipe and dry all items. Treat the refractometer as an optical instrument and avoid damage to the lens and prism.