



Diesel Fuel Water Content & Clarity Test

FCT-100

Two tests in one · Field PASS / FAIL · Results in less than 5 minutes

BASED ON ASTM D4176 · Diesel fuel and heating oil · Non-toxic

A field PASS or FAIL test for suspended water and solid contamination. Keep the jar as a record. Mark the date and sample source with a permanent marker.



Clear and bright

Rectangles #1 and #2 visible — PASS.



Tinted / suspect

Hold to the light. Swirl and check the vortex.



Fails the clarity test

Haze or hidden rectangles — FAIL. Polish the fuel.

Before You Start

- Remove the capsule from the jar and hold it aside for Test 2. Do not pour fuel on top of the capsule.
- Do not open a capsule until you are ready to test. Open capsules pick up moisture from the air and give a false reading.
- Non-toxic — but DO NOT PUT THE CAPSULE IN YOUR MOUTH.

Test 1 — Fuel Clarity

- 1 Take a bottom-of-tank sample when you can. Fill the jar past the top indicator rectangle #5.
- 2 Hold the sample up to the light. Look for haze. Swirl to make a vortex and inspect the bottom for free water and solids.
- 3 If you see free water, stop. The fuel has already failed — skip Test 2.

PASS

Clear and bright fuel. Rectangles #1 and #2 clearly visible through the sample.

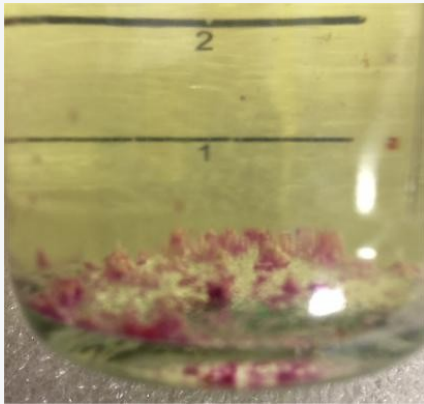
FAIL

Cloudy fuel. Rectangles #3, #4, and #5 not clearly visible — solids or suspended water. Fuel polishing required.

Test 2 — Suspended Water

FCT-100

Only run Test 2 if Test 1 did not already fail on free water. Pink in the powder means water.



Water is shown by pink

Powder settles on the bottom. White is low water. Pink spots or hot pink is a fail.

- 1 Open the capsule and pour the powder into the test jar.
- 2 Put the lid on and shake for 10 seconds.
- 3 Hold the jar upright and watch the powder settle.
- 4 Read the color at the bottom: white powder, pink spots, or hot pink throughout.
- 5 Compare the settled powder to the color scale below.

White powder

Low / no suspended water at the detection level of this kit.

Pink spots · 10–49 ppm

Water is present. Investigate the tank and plan maintenance.

Hot pink · 50+ ppm · FAIL

Action required. Remove the water and polish the fuel.

What the Result Means

All engine manufacturers have a zero tolerance for water and for particulates over 2 microns. This kit is a field indicator, not a laboratory assay. A FAIL means polish the fuel and find the water. Pair FCT-100 with the DS-1 bacteria / mold slide if the fuel has been sitting.

< 5 min

Time to Result

ASTM D4176

Clarity Method

10–50+ ppm

Water Scale

Pass / Fail

Field Decision

DS-1 Companion

Microbe Follow-up

Disclaimer

This test offers only a general indicator of fuel quality. It is not a substitute for laboratory analysis.