

# COMPA DENS CHECK (IMPA Code: 652823)

## Density, Compatibility and Stability Determination – Triple Test Kit

Fuel is paid by weight and delivered in volume. The key to this critical calculation is DENSITY. The precise determination of a fuel's density is essential when calculating its weight from its volume. The COMPA DENS CHECK enables accurate determination of density in light and heavy fuels as well as lubricants and hydraulic fluids from 0.82 up to 1.05 g/ml, directly converted to the standard temperature of 15 °C.

Almost all heavy fuel oil is blended at some stage. This is an increasing development connected to the lowered sulfur cap and increased demand of low sulfur fuels. During blending or on subsequent storage, reactions can occur that result in sludge formation. The aromaticity or solvent capacity of the fuel oil can be too low and an asphaltene precipitate will occur. Filter blockage, reduced fuel injector performance, poor combustion, and even damage to piston rings and liners may occur.

Fuel blends should get checked for stability upon delivery. Bunkers of different supply should be kept segregated whenever possible and being checked for compatibility before getting mixed in the same tank. The test method applied by COMPA DENS follows ASTM D4740-04(2014).



Test Kit COMPA DENS CHECK  
incl. accessories

## ► FEATURES

### Density:

- Measuring range: 0.82 - 1.05 g/ml
- Measuring time: about 2 min.
- Oil sample: 120 ml
- Accuracy: +/- 3 %

### Stability/ compatibility:

- Measuring range: all heavy fuels + MGO
- Measuring time: about 20 min.  
according to ASTM
- Oil sample: stability - 100 ml/  
compatibility - 2 x 50 ml
- Accuracy: go / no go

## ► BENEFITS

- Quick and adjustable heating
- Accurate and reliable analyses
- Four various hydrometers with automatically converted density value from 50 °C to 15 °C
- Directly observable compatibility/ incompatibility test-results
- Easy to handle even for untrained personnel



Degree of soot contamination

light	medium	heavy
Fuel dilution		
no	no	no
Remaining detergent-dispersive power of lube oil		
good	good	good



Degree of soot contamination

moderate	moderate	no
Fuel dilution		
light	moderate	heavy
Remaining detergent-dispersive power of lube oil		
poor	poor	poor

## SPOT CHECK

### Quick Insolubles Test

The **SPOT CHECK** is a quick and cost-efficient test method to determine contamination of engine lube oil with insolubles and in particular to routinely monitor the soot load. Regular testing enables detection of any occurring changes in the oil condition providing valuable indications on irregularities and impending malfunction of an engine. Thereby the costs of engine failures, major damages and uncontrolled downtimes can be avoided.

Just drip one drop of engine lube oil on SPOT CHECK paper and let it dry out. The oil flows through the capillary structure of the chromatographic paper and the picture of the resulting spot will indicate:

- Degree of soot contamination
- Fuel dilution
- Remaining detergent-dispersive power of lubricating oils.