Refraktometer







Directions for use

REFRACTOMETER FOR TESTING RADIATOR COOLANT, WINDSHIELD WASHER FLUID, BATTERY ACID AND THE QUALITY OF ADBLUE®

• Battery acid tester

- Battery acid scale A

The scale indicates the density of the battery acid in kg per litre. Scale A indicates the ranges for **RECHARGE**, **FAIR** and **GOOD**.

AdBlue[®] Evaluation

scale B

- The urea concentration of AdBlue® is 32.5 % by weight
- Display values between 33.2 and 31.8 % by weight are within the tolerance range to ISO 22241-1 (observe manufacturers's specification)

• Anti-freeze tester

- Coolant scale C, glycol (G12++) at left, glycol (G13) at right
- Windscreen washer fluid scale D (quideline)

The instrument incorporates a display, subdivided into 3 scales, from which the values for the respective fluids can be read off (see illustration)



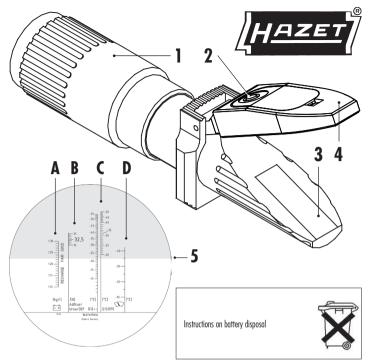
Take particular care when testing the battery acid. Do not let it come into contact with the eyes or skin — this could be harmful. Clean the prism with clean water und dry it with a soft cloth after every test procedure!

• Test procedure:

- Check that the prism (3) and lid (4) of the instrument are clean.
- With the pipette supplied, place a drop of the fluid you wish to test on the prism (3).
- Close the lid (4); this will disperse the fluid.
- Turn the eveniece (1) so that it is properly focused.
- Read off the value on the corresponding scale a pronounced LIGHT-DARK dividing line (5) is displayed.
- In case of bad light conditions, turn on LED-lighting (2).
- On the completion of each test, carefully clean the prism with a dry cloth.

Note: Due to variations in the formulations of windscreen washer fluids, the result of this test represents an average value for a variety of alcohol-based anti-freeze mixtures. The accuracy of the test instrument display can be checked with distilled water. The LIGHT-DARK dividing line must coincide with the WATERLINE.

If the check reveals inaccuracies, return the instrument to your dealer or directly to the manufacturer.



°Celsius	°Fahrenheit
- 10 °C	+ 14°F
- 15 °C	+ 5°F
- 20 °C	- 4°F
- 25 °C	- 13 °F
- 30 °C	- 22 °F
- 35 °C	- 31 °F
- 40 °C	- 40 °F
- 45 °C	- 49 °F

 $\mbox{Note:}$ \mbox{AdBlue}^{\otimes} is a registered Trade Mark of the VDA, German Association of the Automobile Industry.

°Fahrenheit = °Celsius x 1,8 + 32

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