

## Refraktometer: Optischer Frostschutz- und Batteriesäureprüfer mit AdBlue®-Beurteilung

GB

Refraktometer: Anti-freeze and battery acid tester  
incl. AdBlue® quality test

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Refractomètre: Testeur d'antigel et d'acide de batterie  
avec évaluation AdBlue®

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Rifrattometro per protezione antigelo e acido delle  
batterie con metodo di valutazione AdBlue®

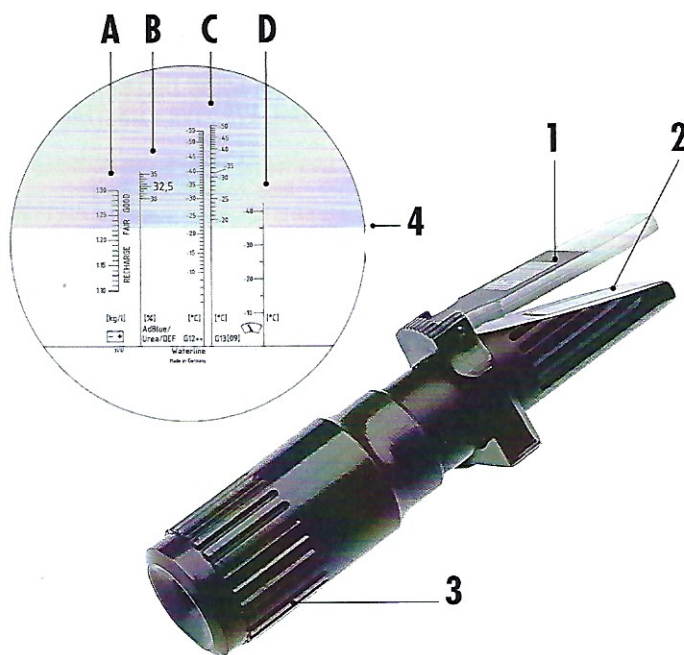
E

Refractómetro con evaluación del AdBlue® para la  
comprobación del anticongelante y del ácido de la batería

NL

Refractometer voor de beoordeling van antivries  
en accuzuur met behulp van AdBlue®





| °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     |

°Fahrenheit = °Celsius x 1,8 + 32

**Hinweis:** AdBlue® ist eine eingetragene Marke des VDA, Verband der Deutschen Automobilindustrie e.V.

**Note:** AdBlue® is a registered Trade Mark of VDA, Verband der Deutschen Automobilindustrie e.V.

**Remarque:** AdBlue® est une marque déposée de la VDA, Association allemande de l'industrie automobile.

**Nota:** AdBlue® è un marchio registrato della VDA (Associazione dell'industria Automobilistica Tedesca), associazione registrata.

**Nota:** AdBlue® es una marca registrada de VDA, Asociación Alemana de la Industria Automotriz.

**Aanwijzing:** AdBlue® is een geregistreerd handelsmerk van VDA, de Duitse Vereniging van de auto-industrie vzw.



## 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 33.3 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 (guideline)

The instrument incorporates a display, subdivided into three 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 prism and lid with clean water and dry it with a soft cloth after every test procedure!

- **Test procedure:**

- Check that the prism (2) and lid (1) of the instrument are clean.
- With the pipette supplied, place a drop of the fluid you wish to test on the prism (2).
- Close the lid (1); this will disperse the fluid.
- Turn the eyepiece (3) so that it is properly focused.
- Read off the value on the corresponding scale at the LIGHT-DARK dividing line (4).
- 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 direct to the manufacturer.