

CERTIFICATE OF CALIBRATION

ISSUED BY H & D FITZGERALD LTD.

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CERTIFICATE NUMBER **12345**



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Approved signatory **H. Fitzgerald**
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Client **ABC Testing Ltd., Any Town, Some County.**
Hydrometer # **01/234567** Calibrated **03 April 2018**
Type **BS 718 M100 medium surface tension**
Scale markings **1.00 to 1.10 g/ml at 20°C**

The hydrometer was calibrated by hydrostatic weighing in a reference liquid of known density using equipment traceable to National Standards.

Value indicated by the hydrometer g/ml	Correction to be added to hydrometer value g/ml	Surface tension mN/m
1.000	+0.0002	55
1.030	+0.0001	55
1.070	+0.0001	55
1.100	+0.0002	55

Uncertainty of the correction **±0.0005g/ml**

Once the above correction has been added to the observed scale reading, and any necessary meniscus or temperature corrections have been made, the result will be the density in g/ml at 20°C.

The calibration was carried out at $20.0 \pm 0.25^\circ\text{C}$. The equation given in BS718/ISO649/1 was then applied to correct the readings to 20.00°C.

The surface tension values tabulated above are those used in the calibration of this hydrometer..

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of about 95%. The evaluation of the uncertainty has been carried out in accordance with UKAS requirements.

This hydrometer shows signs of being magnetic

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