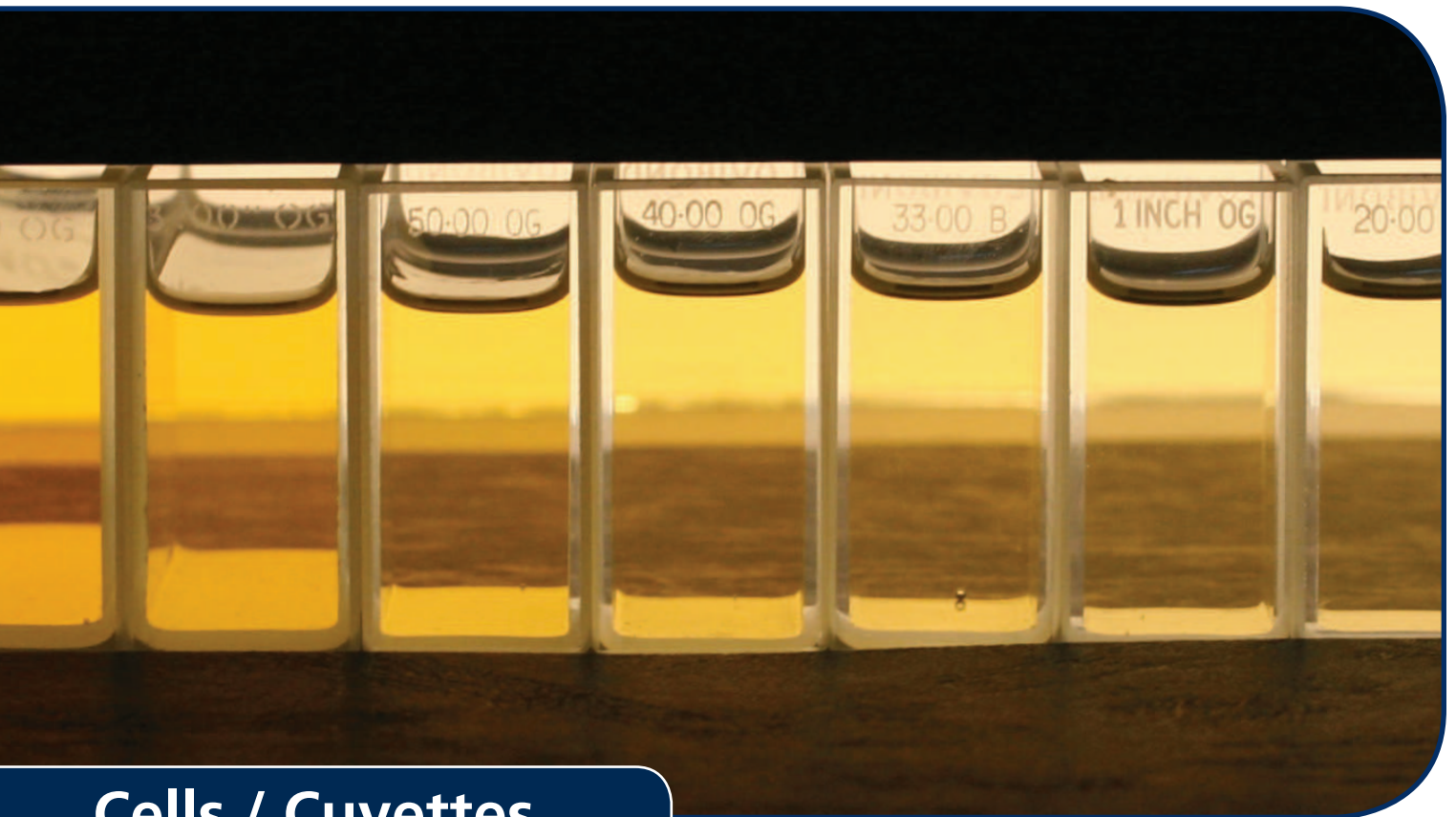


Lovibond® Accessories

Tintometer® Group



Cells / Cuvettes

- High Quality Optical Cells
- Precision Technology
- Heat Fused - Durable and Strong
- Suitable for Heated Samples
- Bevelled Edging - Easy Placement
- Blemish Free

www.lovibond.com



General

Lovibond® optical cells are used in all types of spectro-photometers, fluorimeters, absorptiometers and colorimeters throughout the world. The accuracy of the results obtained from these instruments must in part depend on the accuracy of the cell used.

Lovibond® cells are manufactured by a specially developed fusing process which makes them resistant to acids and chemical attack. Only highest grade materials are used and all Lovibond® cells are thoroughly checked for quality and accuracy.

Applications for Lovibond® Cells



Beers, Malts & Caramels



Chemicals



Coatings



Edible Oils & Fats



Food & Beverages



Household Products



Medical and Clinical



Petroleum Oils & Waxes



Pharmaceuticals



Plastics



Sugar, Syrups & Honeys



Textiles



Environmental Water

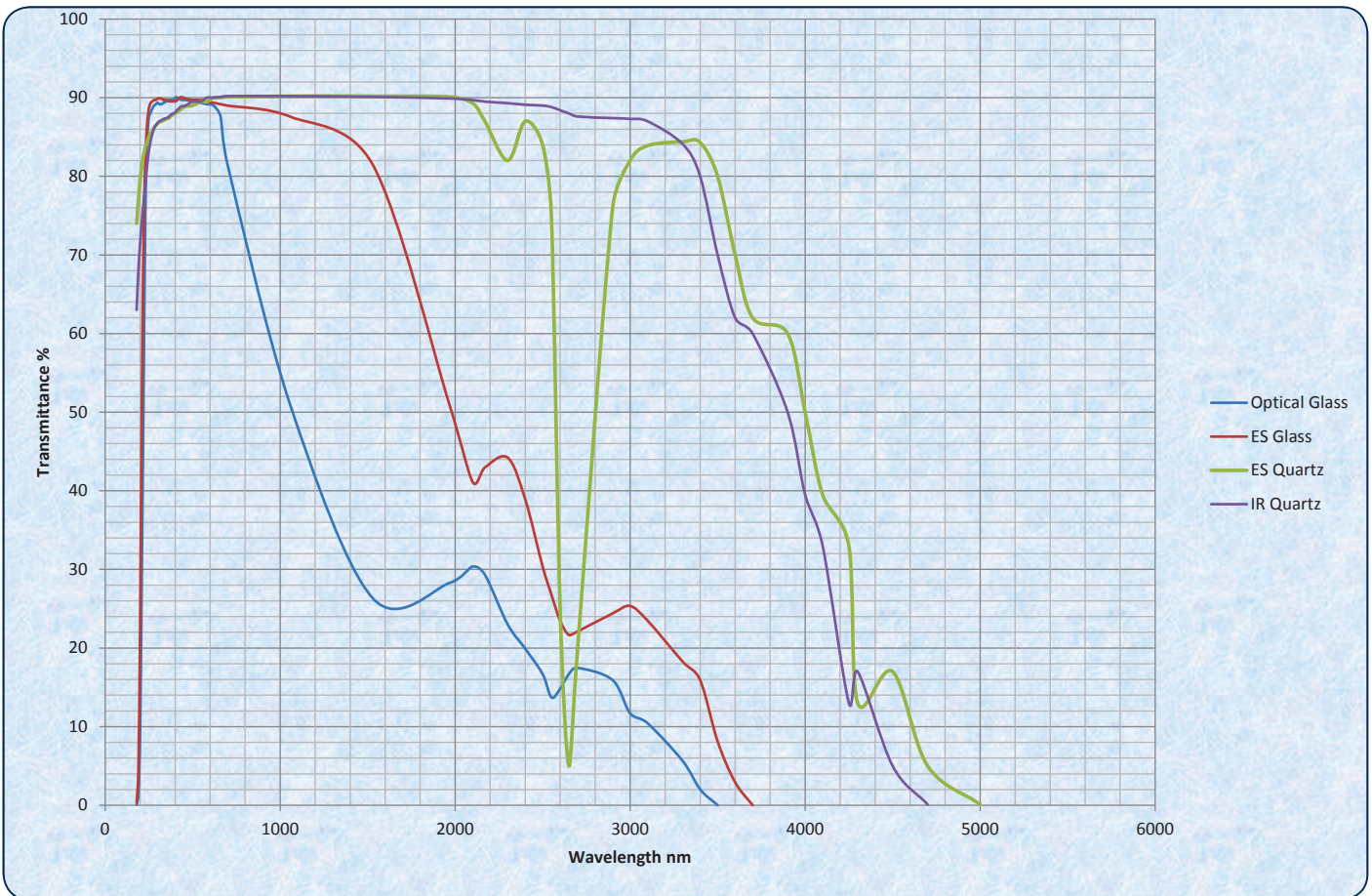


Industrial Water



Potable & Waste Water

Transmission Curves



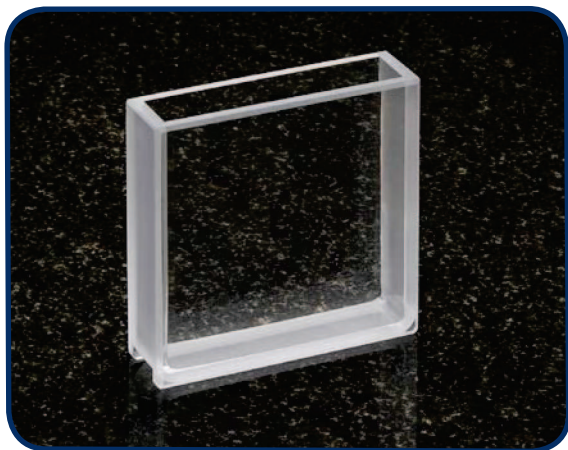
Liquid Reference Standards

The advantage of liquid reference standards is that they can be used with the supplied cell to check any liquid measuring instrument, not just Lovibond® instruments. This means the operator can verify inter-instrument agreement between different instruments. At the same time, it is possible to check the application and how the samples are being prepared and presented to the instrument, in other words, make sure there are no finger prints on the cell or, in the case of heated samples, no thermal currents in the sample liquid.



Confidence in Colour Measurement

For regular conformance checking, Certified Reference Solutions are supplied with full traceability to internationally recognised standards, either ISO/IEC 17025:2000 (ASTM Color, Saybolt and Gardner Colour) or the ISO 9001:2000 quality system (Pt-Co Units). This confirms that they have been manufactured and inspected under the control of The Tintometer Ltd's ISO 9001:2000 quality system.



Materials

Optical Glass¹ or
Borosilicate² Glass
(depending on the composition of the cell - for all requirements in the visible range)
ES³ Quartz Glass with 80% transmission at 200nm
Quartz - for the I.R. range

Code

OG
B

ES
IR

- ¹ Cells made from Optical Glass conform to British Standard 3875.
- ² Borosilicate glass has a very low coefficient of thermal expansion, making it resistant to thermal shock and therefore less likely to crack when heated and cooled. It is recommended for use with hot samples.
- ³ The transmission range for Extrasil ES quartz is from 170 - 2,500nm. In this range, Extrasil ES quartz transmits at over 80%.

Note, the dimensions provided for the individual cells on the following pages represent the external dimensions.

Matching

If required, cells can be matched for transmission in sets of two and four at extra cost as follows:

CELL		WAVE LENGTH	TOLERANCE %
OPTICAL GLASS	OG	365 nm	0.5
ES QUARTZ GLASS	ES	200 nm	0.5
QUARTZ IR	IR	2730 nm	1.5

Pricing available on request.

Special Cells

Lovibond® Special Cell Department is available for making any cell to customers' own requirements providing that such a cell is technically possible. Quotations for special cells will be sent on receipt of drawings or sketches giving relevant details of material and exact measurements.

Packaging

All Lovibond® Spectrophotometer cells are supplied in attractive presentation cases. Other types of cells are suitably packed and shipped according to size and quantity ordered.

Care and Cleaning of Cells

It is important to recognise that Lovibond® optical cells are delicate scientific apparatus and great care should be taken in cleaning them before and after use. Contamination by dirt can lead to relatively large instrumental errors. The cell windows can be stained by leaving the cell filled with certain samples. The following methods of cleaning are recommended.:

1) The cell should be brought to the boil slowly from cold and boiled for 15 minutes in a 2% solution of detergent in distilled water, rinsed thoroughly in distilled water and finally in ethanol before allowing to dry. Any deposit on the faces should be removed by washing in 5% hydrochloric acid before rinsing in water.

2) Staining can be removed by immersing the cell in freshly prepared chromic acid and leaving overnight. The cell should then be rinsed and dried per above. Cells should not be allowed to dry out at any intermediate stage.

NEVER attempt to clean a cell by pushing cloth down inside it because the leverage may crack the face. When the cells are not in use, store in fitted cases so as to protect the windows from accidental damage.