

## Transmission

## Pearl™ Liquid Analyser

The Pearl™ is a high specification liquid transmission accessory designed for laboratory spectroscopic sample analysis in the near and mid Infrared.

The Pearl™ accessory contains Specac's innovative Oyster™ Lift and Tilt cell assembly, which holds the sample in a horizontal plane. The top Oyster™ cell is simply lifted and tilted to one side to allow for fast and easy application of the sample, and for cleaning between samples.

For more volatile samples, there is an injection access port in the top Oyster™, so the cell assembly does not have to be fully opened. At all times, the sample can be viewed through the two windows, allowing the user to ensure that no bubbles have been trapped.

The Oyster™ cell can be cleaned very easily and quickly using tissue and an appropriate solvent.

The Pearl™ has been designed to provide a more accurate pathlength than can be achieved using a traditional liquid transmission accessory, with pathlengths repeatable to significantly better than 1µm thanks to the innovative 'Lift and Tilt' mechanism. Oyster™ cells have the unique feature of being offered as either parallel or wedged cells to eliminate troublesome fringing.

Pearl™ can be fitted with ZnSe or CaF<sub>2</sub> windows which can be interchanged in seconds. Oyster™ cells are available in five pathlengths, 50µm, 100µm, 200µm, 500µm and 1,000µm.

The Oyster™ cell mechanism is so easy to use that it makes the Pearl™ accessory suitable for handling highly viscous samples such as oils and greases.



### KEY BENEFITS

- The easiest to use FTIR liquid sampling system available
- Faster, more accurate and more repeatable than traditional liquid cells
- Wedged cell option to eliminate troublesome fringing completely
- Different pathlengths and window materials changed in seconds
- Handles viscous materials with ease

### KEY APPLICATIONS

- In-service oil analysis
- Quantitative and qualitative analysis
- Adulterated edible oil analysis
- Highly viscous samples such as greases

### THE BENCHMARK™ BASEPLATE SYSTEM

Specac believe that your accessory should be able to be quickly and easily switched from instrument to instrument in your laboratory. To facilitate this, we have developed the Benchmark™ Baseplate system as an interface between the accessory and instrument, and to which the accessory can be fitted with a single thumbscrew fixing. The Benchmark™ Baseplate is unique to the instrument model being used (a baseplate is supplied with the Pearl™ Accessory), and can be left in the sample compartment, if required, for use with other Specac Benchmark™ compatible accessories. You should specify your spectrometer when ordering your Pearl™

Transmission

**Pearl™ Liquid Analyser**

Ordering information

**Pearl™ base unit**

- Blue: **GS31000-A**    ■ Black: **GS31000-B**    ■ Green: **GS31000-G**    ■ Orange: **GS31000-O**
- Purple: **GS31000-P**    ■ Red: **GS31000-R**    ■ Yellow: **GS31000-Y**

**Oyster™ - complete**

Window material	Wedge	Pathlength				
		50µm	100µm	200µm	500µm	1000µm
ZnSe	Parallel windows	GS31211	GS31212	GS31213	GS31214	GS31215
ZnSe	Wedged windows	GS31221	GS31222	GS31223	GS31224	GS31225
CaF <sub>2</sub>	Parallel windows	GS31311	GS31312	GS31313	GS31314	GS31315
CaF <sub>2</sub>	Wedged windows	GS31321	GS31322	GS31323	GS31324	GS31325

**Oyster™ - top**

Window material	
ZnSe	GS32200
CaF <sub>2</sub>	GS32300

**Oyster™ - bottom**

Window material	Wedge	Pathlength				
		50µm	100µm	200µm	500µm	1000µm
ZnSe	Parallel windows	GS33211	GS33212	GS33213	GS33214	GS33215
ZnSe	Wedged windows	GS33221	GS33222	GS33223	GS33224	GS33225
CaF <sub>2</sub>	Parallel windows	GS33311	GS33312	GS33313	GS33314	GS33315
CaF <sub>2</sub>	Wedged windows	GS33321	GS33322	GS33323	GS33324	GS33325



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