

A Universal Transmission Cell for Analysis of Liquids and Mulls



The Omni-Cell™ System is a novel approach to the analysis of liquid samples in transmission spectroscopy - one cell is suitable for all applications.

The cells are compatible with all FTIR Spectrometers, as well as older dispersive systems. They can be configured easily for use as demountable liquid cells, permanently sealed liquid cells, or as mull cells.

Transmission is well established as a technique for analysing samples in the infrared. The choice of window material, pathlength, and window configuration are determined by the sample and wavelength range of interest. Samples can be analyzed neat or diluted with an appropriate solvent.

For quantitative analysis, the sample is often analyzed in a cell with a known pathlength. A guide to the selection of the correct pathlength for various concentrations is shown opposite.

Solid samples can be analyzed using the mull technique. The solid is mixed with a mulling agent, such as Nujol, to form a mull. The mull is then analyzed between circular windows

Analytical Concentration	Typical Pathlength
>10%	0,05mm
10% - 1%	0,1mm
1% - 0,1%	0,2mm
<0,1%	>0,5mm

Applications:

- Demountable Cells:
 - General Purpose.
 - All liquids.
 - Quantitative analysis.
- Sealed Cells:
 - Volatile liquids.
 - Quantitative applications.
 - Low viscosity liquids.
- Mull Cells:
 - High viscosity liquids.
 - Gels and pastes.
 - Oils and greases.
 - Solids suspended as mulls.

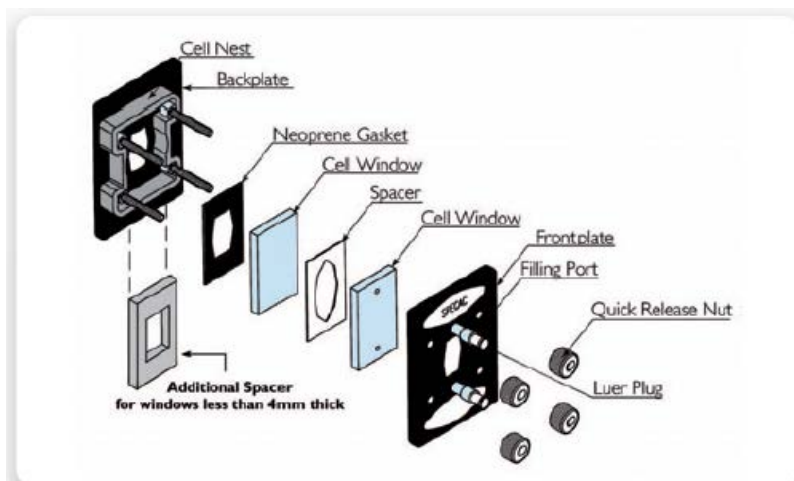
Features:

- Quick to assemble and change windows.
- Windows and Spacers compatible with older cells.
- FTIR and Dispersive compatibility.
- Quick release clamping mechanism.
- Low cost and reliable.
- Wide choice of window materials.

Demountable Cell

This is a general-purpose cell for all liquids.

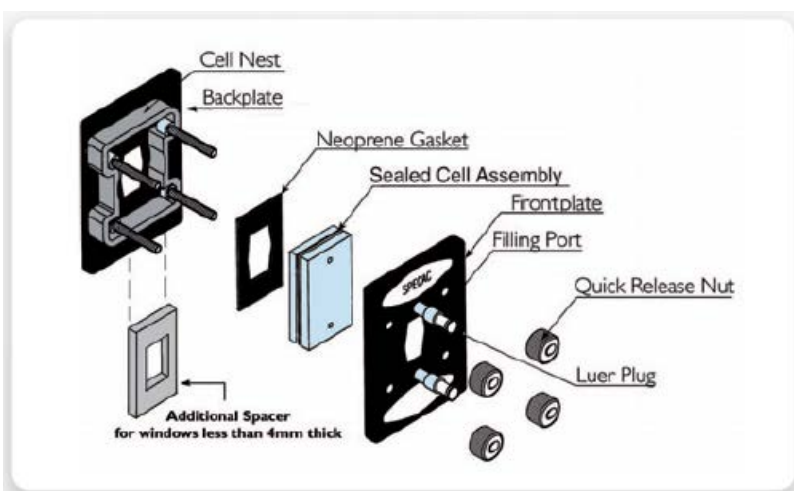
It has the advantage of being easy to dismantle for cleaning, and for changing windows and spacers.



Sealed Cell

The window pair and spacer are amalgamated as an assembly.

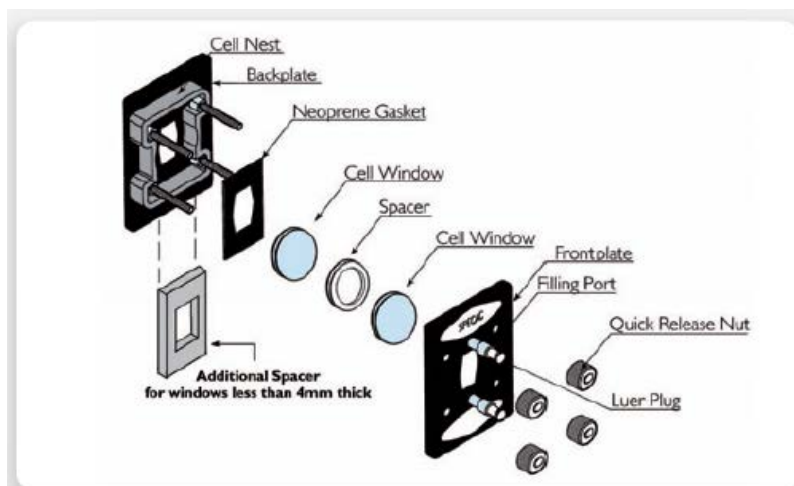
The advantages of this cell are a constant pathlength for quantitative analysis and suitability for use with volatile liquids.



Mull Cell

The Mull Cell does not use the standard liquid filling ports. The sample is placed directly onto one of the circular windows and the other window is then placed on top.

The advantage is that very viscous liquids, gels and pastes can easily be analyzed.



euro labo

Solutions d'échantillonnage
pour l'Analyse Infra-Rouge

Tél. : 01 42 08 01 28
Fax : 01 42 08 13 65
Site : www.eurolabo.fr
Mail : contact@eurolabo.fr