

Diamond Compression Cell and Microfocus Beam Condenser



DC-2 Diamond Compression Cell



A Universal diamond compression cell specially designed for FTIR microscopes and the Specac Microfocus Beam Condenser

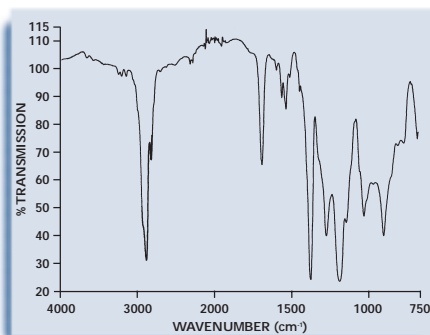
The new DC-2 is a unique diamond compression cell using proven high temperature diamond-to-metal bonding technology for maximum strength and durability.

The cell consists of two Hastalloy plates containing a pair of diamond windows that enable samples to be compressed to an ideal thickness for transmission measurements. This means that pre-preparation is minimal and the samples are ready for direct analysis on an FTIR microscope stage.

No tools are required, making loading both quick and simple. The screw down compression system gives non rotating uniform pressure across the sample and the large clear aperture is ideal for multiple sample loading.

The significant strength advantage offered by our unique diamond mount is the reason we can minimise the thickness of the diamond and achieve the highest throughput for this type of micro transmission cell.

**Polymer Fragment from Thumb Tack
16 scans 4cm⁻¹ DTGS**



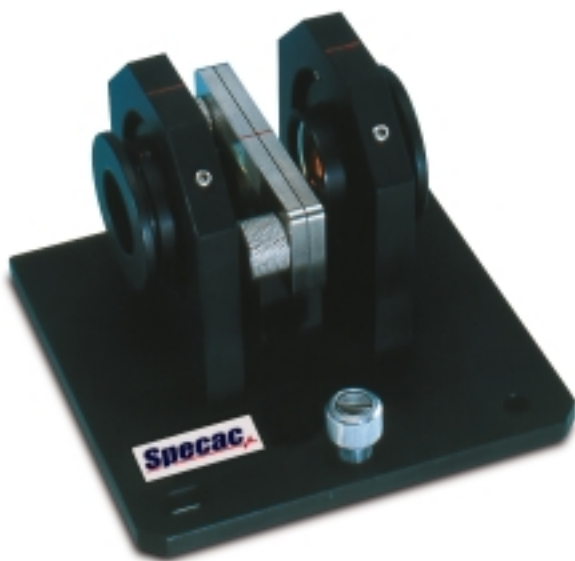
Features

- Type IIa flat diamond windows
- High temperature diamond-to-metal bonding into tungsten carbide
- Large clear aperture 1.5mm
- Hastalloy body construction
- Universal use with FTIR microscopes and Microfocus Beam Condenser
- High working pressure, high throughput

Applications

- Compression to optimum transmission thicknesses of polymers, rubbers, minerals
- Microanalysis of brittle, elastic semi-rigid fibers particles and fragments

Microfocus Beam Condenser



The Microfocus Beam Condenser is a rugged high performance 4x beam condenser specially designed for use with the new DC-2 Diamond Compression Cell.

In combination, this system can be used for the analysis of virtually all solid samples by transmission. The beam condenser uses lens focussing which requires minimal

adjustment for maximum ease of use, and the compact design ensures minimum pathlength through the accessory.

The Microfocus is baseplate mounted for optimal support and stability using the standard Specac Benchmark series baseplates.

Features

- Only 2 optical components
- Minimal pathlength through accessory
- Non hygroscopic lens system
- High throughput over wide working range
- Suitable for use with DTGS detectors
- Optically matched with DC-2 Diamond Compression Cell
- Condensing power 4x
- Snap-in compression cell location
- Baseplate mounted

Applications

- Micro transmission analysis of;
- Particulates
- Fibers
- Paint fragments
- Minerals
- Hard polymers
- Rubbers

The system is compatible with all FTIR spectrometers. Snap-in location ensures the compression cell is easily and reproducibly installed in the Microfocus.

ZnSe lenses are standard and KRS-5 lenses are available as an option for extended wavelength work.

Ordering Information

Main Product

2550	DC-2 Diamond Compression Cell
2551 Series	DC-2 kit (specify instrument and lenses)
Includes:	DC-2 Diamond Compression Cell Microfocus Beam Condenser Forceps Stainless steel sample needle Sample preparation knife Blades (10) Blade remover (2)
2560 Series	Microfocus Beam Condenser (specify instrument and lenses)
Includes:	Microfocus Beam Condenser Baseplate

Options

2570	KRS-5 lens kit for use with Microfocus Beam Condenser
2571	ZnSe lens kit for use with Microfocus Beam Condenser

Spares and Consumables

2508	Sample forceps
2509	Stainless steel sample needle
2510	Sample preparation knife with blades (10) and blade remover

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