

Ultima Sampling Kit – With the Highest Performance, Single-reflection ATR and Backup Accessories to Do it All



FEATURES OF THE ULTIMA SAMPLING KIT

- Complete kit for ATR, diffuse reflectance, and specular reflectance
- High-performance accessories eliminate tedious pellet making
- Analysis of liquids, solids, powders, polymers, and thin film samples

In recent years, single-reflection ATR measurements have become quite popular for at least two main reasons – they further simplify sample preparation and also reduce the complexity of traditional FTIR measurements. This is achieved through the reduction of the sampling area (smaller sample volume/size requirement), ease of cleaning and the introduction of more rigid, diamond-protected sampling interfaces, capable of withstanding higher pressures and harder samples. In many cases the single-reflection ATR has become capable of analyzing a wide variety of samples – including rigid solids and hard powders – which are difficult to achieve with a multi-reflection ATR. For these reasons, the single reflection ATR has gained the reputation of being a “universal” sampling device.

This is true 80% of the time. The other 20% (especially when dealing with poor absorbers, some powders and films) still need to be analyzed by other methods. For this reason, PIKE designed an accessory kit built around the MIRacle – Single Reflection ATR, and also included basic diffuse reflectance and specular reflectance accessories. This combination offers one of the most complete range of sampling devices used in FTIR and covers a wide variety of sampling needs. The Ultima Sampling Kit contains the following accessories:

MIRacle – Single Reflection ATR

Designed to analyze a wide variety of solid and liquid samples. It offers a number of unique features including: a universal sampling plate which accommodates liquids, solids and powders, small (1.8 mm) sampling interface making the analysis of small and/or awkward samples easy, and interchangeable sampling plates. All the above options allow for the best selection of an appropriate spectral range, and a configuration which matches the optical, physical and chemical properties of analyzed samples. The patented optical design of the accessory offers the highest optical throughput and sensitivity. The MIRacle is equipped with a pressure clamp, volatiles cover and purge attachments.

EasiDiff – Diffuse Reflectance Accessory

Is an ideal product for the analysis of powders and intractable solids. With a set of convenient tools for sample preparation, this compact, high performance accessory provides outstanding collection efficiency.

30Spec – Specular Reflectance Accessory

Is a great accessory for the analysis of thin organic films deposited on reflective surfaces and a myriad of surface coatings and surface treatments. The 30Spec is slide-mounted and comes with a set of three masks which allow for the isolation of small, predetermined spots on larger samples, and the analysis of small samples.

Please refer to the appropriate section of this catalog to review the theory and detailed description of kit components.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
050-20XX	Ultima Sampling Kit with: MIRacle – Single-reflection ATR with ZnSe Crystal, Universal Configuration for solid and liquid analysis, High Pressure Clamp and Volatiles Cover EasiDiff Accessory with Sampling Tools, two each micro and macro Sample Cups, EasiPrep Sample Preparation Kit, Alignment Mirror, Pestle and Mortar, and KBr 30Spec – Specular Reflectance Accessory with a set of three masks for control of the sampling spot size.

Notes: Please see the FTIR instrument code sheet. Add -DI, -GE, -SI, or -AM to the part number to substitute the following MIRacle crystal plates; Diamond/ZnSe, Germanium, Si/ZnSe or AMTIR.