

The Microplastics Solutions

For a better life

After careful consideration of the optimal Microplastic analysis workflow and the needs and challenges of the people approaching this topic HORIBA have developed a full solution to assist our existing and future customers by providing all the tools needed, in a single bundle.

A Microplastics Package to help in your daily lab work

The package includes

- A regularly updated booklet
- A filtration kit
- A filtration holder with VRM (Video Raman matching) technology
- Microplastics standards
- A Raman microscope platform
- Our expertise to support you everyday

A Booklet to:

- Provide you an overview of the Microplastics world to fill in any gaps in your knowledge
- Explain and detail the protocols for sample preparation
- Summarize the measurement techniques available and their Pros and Cons
- Understand the tricks & tips for Microplastic analysis
- Keep you updated. The Booklet will be updated once a year with new protocols, information etc...

Standards: A set of tablets containing a mixture of polymer particles (PE, PVC and PS) of known size distribution and number to validate your lab environment and workflow.

Filtration kit: Filtration apparatus to get your Microplastic analysis started (PN: FILT-Kit).

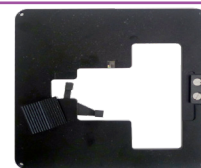
Filters, Filter Holder and VRM: A box of Silicon filters with a holder specifically developed and optimized for efficient analysis of these square filters. (PN: Si-Filters-Box). VRM (Video Raman Matching) stage with NanoGPS technology to confidently locate even the smallest particles.



Filtration Kit



Standards



VRM





Filter box



Filter holder

Choice of two Raman platform

Both Raman microscopes can be equipped with either a standard detector (CCD - Charge Couple Device) or an imaging detector (EMCCD - Electron Multiplied Charge Couple Device). The LabSpec 6 software platform is common to both systems for complete instrument control, data processing and this package also includes the additional apps needed for efficient Microplastic analysis

	XploRA Plus	XploRA + EMCCD	LabRAM Soleil	LabRAM Soleil + EMCCD
	XploRA 		LabRAM Soleil 	
Package Part Number	MicroP-XploRA Plus	MicroP-XploRA Plus/EM	MicroP-Soleil	MicroP-Soleil/EM
Objectives	5X, 10X, 20X, 50X (long working distance), 100X		5X, 20X, 50X (long working distance), 100X	
Safety	IEC 60825-1 / Enclosure Laser safety class 1		Built-in IEC 60825-1 / Enclosure Laser safety class 1	
Gratings, motorized turret	600, 1200, 1800 and 2400 gr/nm		600, 1200 and 1800 gr/nm	
Stage scan range	X: 75mm, Y: 50 mm, Step size: 50nm		X: 75mm, Y: 50 mm, Step size: 5nm	
Build in motorized and fully software controlled lasers	532nm, 785nm			
Detector	Open electrode CCD	EMCCD	Open electrode CCD	EMCCD
SWIFT™ XS high speed imaging		SWIFT™ XS EMCCD ultrafast confocal imaging (typically 50 times faster than conventional point by point mapping)		SWIFT™ XS EMCCD ultrafast confocal imaging (typically 50 times faster than conventional point by point mapping)
Confocal imaging	XY lateral resolution <500 nm XY		XY lateral resolution < 250 nm ⁽¹⁾	
Full Optical Microscope	Full flexibility with Brightfield, Darkfield and visible polarization			
Super-Low frequency cut-off (standard)			< 30 cm ⁻¹ ⁽²⁾ measured on sulfur Built-in motorized filter holder to optimize cut-off according to spectroscopic mode, sample scattering and reflectivity.	
SmartID™			Objectives including automatic recognition by NFC technology ⁽³⁾	
Epifluorescence*	optional	optional		
Microplastics references materials	Blister containing all the following polymers: PE (125-150 µm), PS (250-355 µm), PVC (150-250 µm), a mixed of all the previous polymer types, and a blank.			
 Software	LabSpec 6 is the acquisition, browsing, data and image pre-processing platform which makes your Microplastic tools (EasNav, ParticleFinder, and MVA Plus) ready for any users.			
 Sample navigation	Patented EasyNav™ package including NavMap™, NavSharp™ and ViewSharp™ to quickly find the region of interest and navigating with ease to optimum focus.			
 Particle analysis	ParticleFinder™ for shape, size, morphology and automated Raman chemical analysis of particles, built-into LabSpec 6 software.			
 Multivariate analysis	MVPlus™ for large datasets analysis (up to 4 million pixels), including decomposition algorithms (PCA, MCR) and clustering algorithms (HCA, K-means).			
 Spectral database	KnowItAll® informatics system offers fully integrated software and spectral databases. Provides researchers with multiple tools such as database building, management, mining/ search, analysis, structure drawing, and reporting, all within a single user interface.			
Video Raman matching mode	Sample holder accessory & software powered by nanoGPS technology, for excellent spatial superposition of Raman and video-microscopy observations.			

(1): The ultimate instrument specification requires the optimal environmental conditions and the selection of proper individual configuration and options. The ultimate specifications are not guaranteed values

*: Requires the replacement of the standard 2 position motorized illuminator by the manual version with 6 positions.

(2) The specifications shown here represent the average performance of the instrument. These specifications are typical values, not guaranteed values. The guaranteed specifications, which can be demonstrated at time of acceptance, are configuration dependent and listed in a separate document, provided upon request at time of ordering

(3) NFC functionality included as a standard in all instruments. Restrictions apply in the territories of the USA, Japan and Germany; please contact our local sales office for more information

Find out more: www.horiba.com/microplastics

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