

Sampling Accessories for Raman Instruments

This leaflet describes the sampling accessories that can be used with the following Raman instruments:

- RamanStation 400/400F Raman Spectrometers
- RamanMicro 200/200F Raman Microscopes
- RamanMicro 300 Raman Microscopes

The accessories include:

- Tablet Holder Sampling accessory
- Powder Holder accessory
- Multi-well sample plates

The various sampling accessories enable you to place an array of tablets, powders or liquid samples on either the motorized stage in the sample compartment of the RamanStation, or on the motorized stage of the Raman microscopes. Using the Spectrum software, you can select the positions of your samples on the plates, then use the imaging system to collect multiple images from your samples without supervision. Alternatively, you can navigate to specific samples of interest and collect your data manually.

Tablet Holder Sampling Accessory

The tablet holder sampling accessory (part number L1320278) consists of a baseplate with a pierced grid that you use to arrange a selection of tablet cups (Figure 1). The tablet holder accessory has a 7 x 11 grid.

The accessory comes with tablet cups in three sizes that can be used to hold tablets in nine standard sizes.

For uncoated circular tablets of a standard size, it may be sufficient to place your samples in the tablet cups. Typically, however, you glue each sample tablet to a disposable sample disc, flatten and polish the area of interest, and then place this prepared sample in a suitable tablet cup. There is no need to use tablet cups of the same size, or to arrange them in a particular pattern on the baseplate. You can select the position of your tablet cups in the software.

You can also use tablet molds designed for the PerkinElmer Tablet Autosampler in conjunction with the 22 mm tablet holders. Refer to *Pre-defined and Custom Tablet Molds* on page 5 for more information.



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Produced in the UK.



Figure 1 Tablet Sampling Accessory

NOTE: You may find it convenient to remove the handles from the accessory as this will help avoid damage to the camera snout. If you choose not to remove the handles, you should take particular care when loading and unloading the accessory to and from the instrument.

Powder Holder Sampling Accessory

The powder holder accessory (part number L1320280) has a baseplate that contains a 6 x 9 array of wells. Each well can contain one powder sample cup.



Figure 2 Powder Sampling Accessory

NOTE: You may find it convenient to remove the handles from the accessory as this will help avoid damage to the camera snout. If you choose not to remove the handles, you should take particular care when loading and unloading the accessory to and from the instrument.

Filling Sample Cups

A cup loader is supplied with the powder holder accessory that makes loading the powder cups easier.

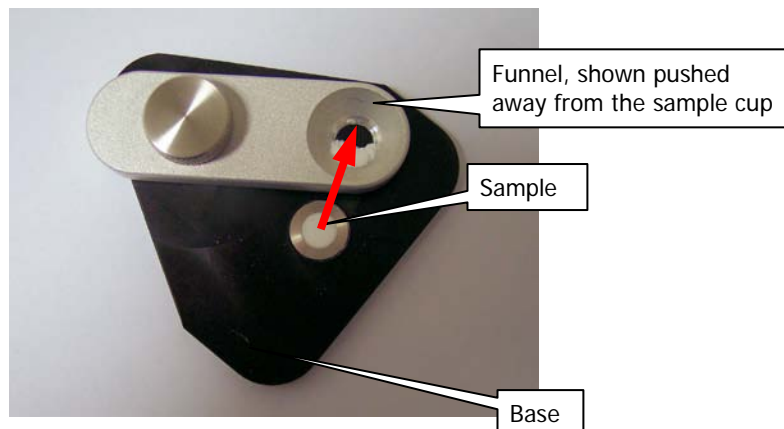


Figure 3 The Sample Cup Loader

1. Place the hole in the cup loader base over an empty powder cup.
The base of the cup loader is the same thickness as the height of a powder cup. The diameter of the hole is the same as the diameter of the powder cup.
2. Align the cup loader funnel with the powder cup.
3. Use the spatula provided to fill the powder cup, and then gently push the loader funnel away from the sample cup.
The powder surface should be flat and even.
4. Carefully lift the loader off the sample cup.
You can now pick up the sample cup using tweezers.
5. Place the powder cup in a well on the powder accessory baseplate, and note its position.
6. Discard any excess powder from the cup loader.

There is no need to place the powder cups in particular wells on the baseplate. You can select the position of your powder cups in the software.

NOTE: If you disassemble the sample cup loader for cleaning, ensure that the spring washer under the thumbscrew is not lost or damaged.

Multi-well Sample Plates and DSC Pans

A wide range of multi-well samples plates are available, enabling you to work with samples supplied as liquids or in micro-tablet form. DSC pans can also be used as sample holders for Raman analyses.

NOTE: If you are using the accessory on the motorized stage on the microscope, you must insert the multi-well plate holder (L1321675) onto the stage before adding the plate.

Using your Sample Accessory with Spectrum Software

Refer to the SOPs in your Raman instrument or Raman microscope *Getting Started Guide* for details of how to select your sample holder in the Spectrum software.

Shipping Lists

Tablet Sampling Accessory for Raman (L1320278)

Item	Part Number	Quantity
Tablet Holder Baseplate Assembly	L1320279	1
Sample Discs, 9 mm	L1860538	3 x pack of 100
Sample Discs, 13 mm	L1860539	3 x pack of 100
Sample Discs, 20 mm	L1860540	3 x pack of 100
Tablet Holder Cups, 11 mm	L1862001	30
Tablet Holder Cups, 15 mm	L1862002	15
Tablet Holder Cups, 22 mm	L1862003	9
Tweezers	L9002225	1

Powder Sampling Accessory for Raman (L1320280)

Item	Part Number	Quantity
Powder Holder Baseplate Assembly	L1320281	1
Powder Cups	L1862656	54
Powder Tray	L1241418	1
Loading Tray (for six powder cups)	L1862666	1
Loading Tray Base	L1862667	1
Powder Cup Loader (for one powder cup)	L1860548	1
Micro Spatula, 10 cm	04967843	1
Spatula, 19 cm	09200017	1
Tweezers, Fine Point, Stainless Steel	L9001976	1
Large Pencil Brush	04947633	1

Multi-well Sample Plates and DSC Pans

For details of the multi-well plate types and DSC pans that are available, and their part numbers, please contact your PerkinElmer sales representative or go to www.perkinelmer.com/search. Look for “microplates” or “DSC pans”.

Pre-defined and Custom Tablet Molds

You can use the 22 mm tablet holder cups supplied with the Tablet Sampling Accessory to hold the predefined tablet molds, or custom tablet molds.

Use the predefined tablet molds to securely mount circular tablets.

Pre-Defined Tablet Molds Starter Kit (L1245026):

Item	Part Number	Quantity
Tablet mold, 8 mm	L1241571	3
Tablet mold, 9 mm	L1241572	3
Tablet mold, 10 mm	L1241573	3
Tablet mold, 11 mm	L1241574	3
Tablet mold, 12 mm	L1241575	3

If your tablets are not circular, you can make secure tablet molds using the Custom Tablet Molding Kit.

Custom Tablet Molding Kit (L1245025):

Item	Part Number	Quantity
Tablet Mold Base	L1241556	10
Tablet Mold, 6 mm	L1241557	5
Tablet Setting Pin, 6 mm	L1241555	5
Tablet Mold, 4 mm	L1241558	5
Tablet Setting Pin, 4 mm	L1241559	5
Custom Tablet Molds Resin Kit	L1245024	1
Beaker, 100 ml, tri-corner	09200012	1
Syringe, 1 ml, disposable	09200010	1
Syringe, 10 ml, disposable	09200011	1
Syringe nozzle, gray	09200013	1
Spatula, 7.5 in	09200017	1
Large Pencil Brush	04947633	1

NOTE: You can also order tablet molds customized to the dimensions of your tablets. For information about this service, consult your PerkinElmer representative.

Consumables

Consumables and Replacement Parts	Part Number	Quantity
Sample Discs, 9 mm	L1860538	pack of 100
Sample Discs, 13 mm	L1860539	pack of 100
Sample Discs, 20 mm	L1860540	pack of 100
Tablet Holder Cups, 11 mm	L1860535	pack of 50
Tablet Holder Cups, 15 mm	L1860536	pack of 25
Tablet Holder Cups, 22 mm	L1860537	pack of 12
Tablet Molds, 8 mm	L1241594	pack of 5
Tablet Molds, 9 mm	L1241595	pack of 5
Tablet Molds, 10 mm	L1241596	pack of 5
Tablet Molds, 11 mm	L1241597	pack of 5
Tablet Molds, 12 mm	L1241598	pack of 5
Powder Cups	L1860541	pack of 24
Custom Tablet Mold Resin Kit	L1245024	1

SERS Consumables

Item	Part Number	Quantity
SERS gold colloid – 50 nm particles	L1329300	20 ml
SERS gold colloid – 100 nm particles	L1329307	20 ml
SERS gold colloid – 200 nm particles	L1329308	20 ml
Aggregating agent – MgSO ₄ 0.16 M in milli Q water	L1329301	20 ml
Standard crystal violet pigment	L1329303	0.25 ml
Disposable micropipettes – 200 µl	L1329304	pack of 100
Disposable micropipettes – 50 µl	L1329305	pack of 100
Disposable micropipettes – 2 µl	L1329306	pack of 100

