

PFA Trace Analysis Labware

VITLAB® trace analysis labware is manufactured from PFA (a perfluoroalkoxy copolymer), which is highly resistant to heat and chemical contamination and has surface properties that greatly simplify cleaning. Use this labware for excellent results in ICP-MS, production and storage of trace analysis standards, isotope separations, sample digestions, and more.

With the increasing need in trace analysis labs for ultra-low concentration determinations in the ng/g (ppb) and pg/g (ppt) range, the use of PFA labware has become more and more important. Other materials, when not specially treated, may be subject to interaction between the vessel and the sample, standards, or reagents it contains. This may cause incorrect results with modern trace analysis instrumentation.

All VITLAB® PFA trace analysis labware features visible, accurate, and permanent graduations for precise measuring. PFA labware is suitable for sterilization using heat, gas, and chemical methods for handling sensitive biological solutions.

Excellent temperatures stability—VITLAB® PFA trace analysis labware maintains its stability in temperatures from -200 °C to 250 °C.

Properties

No leachable metals—PFA is manufactured without metals such as calcium, aluminum, iron, magnesium, nickel, copper, manganese or zinc. These metals can leach into samples from other containers, and contaminate samples.

Simplified cleaning—Conventional labware for trace analysis requires time-consuming and expensive cleaning. The hydrophobic and anti-adhesive properties of the exceptionally smooth-surfaced PFA labware simplify the cleaning process, making it ideal for trace analysis.

Superior chemical resistance—PFA is inert with most reagents, including the nitric and hydrochloric acid routinely used in cleaning trace analysis labware. This stability significantly reduces the risk of cross-contamination.

Excellent long-term stability—PFA containers often extend the stability of low (ppb) concentration standards. Such stability reduces the time and cost of renewing trace analysis standard solutions.

Highly translucent—Translucency is important for making accurate measurements using volumetric labware.

Please see page 128 for description of various plastics.

Performing trace analysis?

See the new BRAND® Dispensette® S Trace Analysis bottle-top dispenser for Trace Analysis on page 43.



VITLAB® PFA Labware—pure, cleanable, rugged

Scanning electron microscopy illustrates the advantages of PFA in trace analysis. (Magnification: 8000X)

HDPE – Bottle

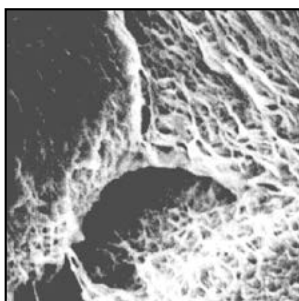
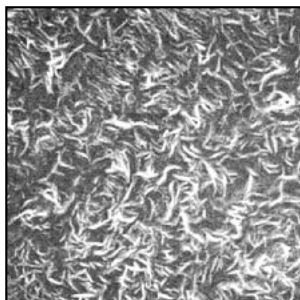
Scanning electron microscopy of this bottle wall shows the roughness of HDPE. The increased surface area of HDPE can lead to carryover of reagent molecules.

PTFE – Beaker

Similar to HDPE, electron micrographs of this PTFE beaker reveal a typically rough surface that can interact with reagent molecules and complicate cleaning.

PFA – Evaporating dish

Even at 8000x magnification, the surfaces of this PFA evaporating dish are very smooth. It is this smoothness, combined with PFA's hydrophobic, anti-adhesive and inert properties, that simplify cleaning.





Volumetric Flasks with screw caps, PFA

- Individually calibrated ring-markings
- Durable markings easy to read—limit cleaning temperature to 60 °C to preserve ring mark
- High-transparency simplifies meniscus verification
- PFA screw caps help protect against outside contamination and leakage
- Meets Class A tolerances per DIN EN ISO 1042
- Autoclavable at 121 °C without affecting tolerances

Volume mL	Tolerance mL	Height* mm	Thread GL	Qty./Pack	Cat. No.	2021 List Price
10	0.04	90	18	1	V107097	\$248.40
25	0.04	115	18	1	V107197	249.60
50	0.06	150	18	1	V107297	255.00
100	0.10	180	18	1	V107397	315.40
250	0.15	235	25	1	V107497	396.00
500	0.25	270	25	1	V107597	456.40

*Height without screw cap



Wide Mouth Reagent Bottles with screw caps, PFA

- Leach-resistant bottles for long-term storage of solvents and standards
- Autoclavable at 121 °C
- PFA screw caps with molded sealing ring for a positive seal

Volume mL	Height mm	Diameter mm	Thread	Qty./Pack	Cat. No.	2021 List Price
250	150	61	S40	1	V109497	\$211.00
500	179	76	S40	1	V109597	291.60
1000	217	96	S40	1	V109697	404.60
2000	245	130	S40	1	V109797	834.20



Narrow Mouth Reagent Bottles with screw caps, PFA

- Leach-resistant bottles for long-term storage of solvents and standards
- Autoclavable at 121 °C
- PFA screw caps with molded sealing ring for a positive seal

Volume mL	Height mm	Diameter mm	Thread	Qty./Pack	Cat. No.	2021 List Price
50	86	37	S28	1	V109297	\$121.60
100	120	45	S28	1	V109397	173.20
250	160	61	S28	1	V108297	201.20
500	190	76	S28	1	V108397	275.40
1000	240	96	S28	1	V108497	380.00

PFA Trace Analysis Labware

Round Bottom Flasks, PFA

- For rotary evaporators and distillation of high-purity chemicals
- With 29/32 ground socket
- Translucent surfaces simplify solvent monitoring
- Autoclavable at 121 °C
- Maximum temperature under vacuum is 50 °C

Volume mL	Height mm	Neck mm	Diameter	Qty./Pack	Cat. No.	2021 List Price
100	117	29/32	65	1	V107797	\$164.80
250	147	29/32	88	1	V107897	193.60
500	177	29/32	107	1	V107997	264.80



Sample Containers with screw cap, PFA

- For sample collection, transport and storage
- Supplied with a PFA screw cap
- Autoclavable at 121 °C

Volume mL	Height mm	Diameter mm	Thread GL	Qty./Pack	Cat. No.	2021 List Price
30	54	38	40	1	V130297	\$78.60
60	90	38	40	1	V130397	94.80
90	62	54	56	1	V130497	107.60
180	112	54	56	1	V130597	132.40



Low-form Griffin Beakers, PFA

- Molded graduations easy to read and resistant to wear from repeated use
- Autoclavable at 121 °C
- Nesting design conserves bench and storage space.

Volume mL	Grad mm	Height mm	Diameter mm	Qty./Pack	Cat. No.	2021 List Price
25	5	50	32	1	V110205	\$36.60
50	10	59	39	1	V110305	46.20
100	20	72	50	1	V110405	65.60
250	50	96	67	1	V110605	107.60
500	100	122	88	1	V110905	163.40
1000	100	141	109	1	V111005	294.00

