

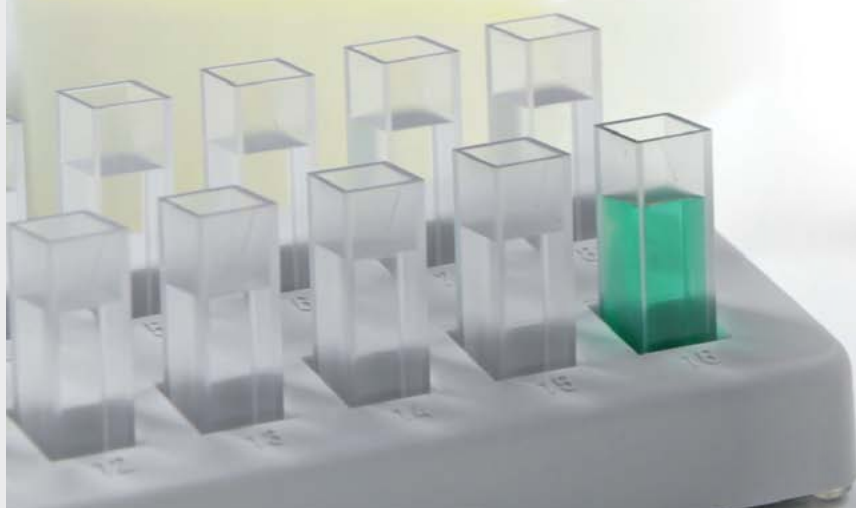
BRAND[®] Plastic Cuvettes

Why BRAND[®] Disposable Cuvettes?

BRAND[®] is world-renowned as the producer of premium disposable cuvettes. Over thirty years of experience manufacturing disposable cuvettes ensures that every BRAND[®] cuvette is manufactured to the most exacting standards for reproducible results.

- **Virgin resins**—BRAND[®] cuvettes are manufactured from the highest quality virgin resins for superior optical quality. Choose economical polystyrene for determinations above 340 nm. Choose polymethyl methacrylate (PMMA or “acrylic”) when performing assays above 300 nm. For assays with wavelengths as short as 230 nm, or that require enhanced chemical compatibility, choose BRAND[®] UV-Cuvettes, made of a proprietary resin.
- **Mold-cavity matching**—All plastic cuvettes are manufactured in multi-cavity molds, producing multiple cuvettes with each molding operation. Even with BRAND[®]'s experience and attention to manufacturing detail, nothing can prevent slight differences among the cavities that can lead to variation in extinction coefficients. Rather than randomly aggregate cuvettes from all cavities, BRAND[®]'s automated production process sorts the cuvettes by mold cavity; each package only contains cuvettes from the same mold cavity. This ensures the lowest possible cuvette-to-cuvette variance, and more accurate measurements. Robotic sorting also eliminates the risk of human error, and potential contamination.
- **Protective packaging**—BRAND[®] cuvettes are encased in dust-free, low-scratching expanded polystyrene packaging. This ensures that premium cuvettes arrive in the laboratory in the same pristine condition they were in at the factory, with optical quality windows and free of contaminants. For applications in which the highest purity is required, BRAND[®] ultra-micro UV-Cuvettes are available individually wrapped and free of DNA, DNase and RNase. Individual packaging offers the convenience of disposability and a degree of sample protection that is unmatched by any reusable cuvette.
- **Fluorimetry cuvettes**—BRAND[®] brings three decades of experience molding high-quality spectrophotometry cuvettes to new four-sided clear cuvettes for fluorimetry. Available in standard polystyrene or a proprietary polymer with ultra-low auto-fluorescence for the highest precision measurements.

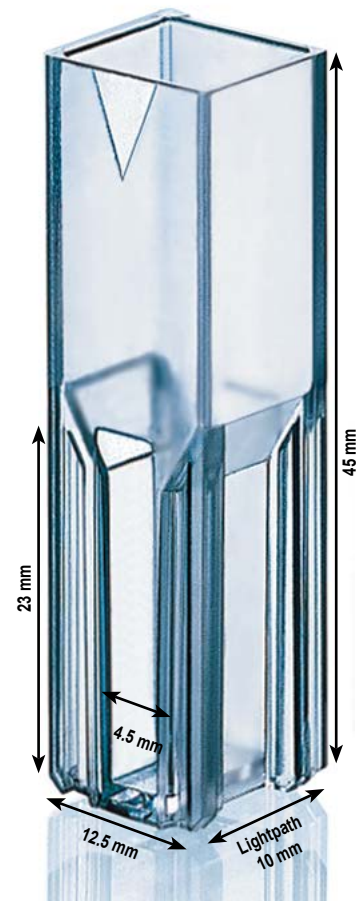
The BRAND[®] logo,
your assurance of
a quality cuvette



Technical Data

BRAND® plastic spectrophotometry cuvettes are an excellent choice for most spectrophotometry applications in the visible and UV ranges. Cuvettes manufactured from PS and PMMA, provide accurate, reliable results even at wavelengths as low as 300 nm. For enhanced chemical compatibility, or measurements to 230 nm, choose BRAND® UV-Cuvettes. These disposable cuvettes are available in macro and semi-micro sizes to accommodate most sample volumes. BRAND® plastic cuvettes are compatible with most spectrophotometers and photometers using a standard 10 mm path length.

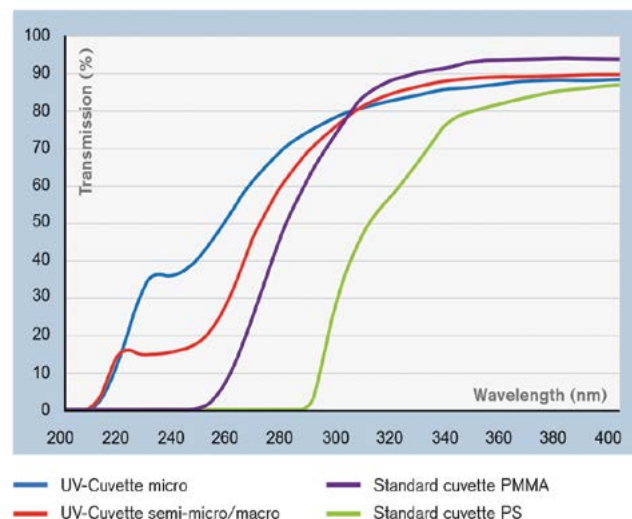
- **Easy to use**—BRAND® plastic disposable cuvettes include an arrow mark to indicate direction of transmission and reduce variation.
- **Volumes for most needs**—PS and PMMA cuvettes are available in both macro and semi-micro sizes to adapt to the needs of most laboratory applications. Semi-micro cuvettes require only 1.5 mL of sample volume to provide reliable, accurate results.
- **Perform consistently**—Cuvettes are manufactured from high-quality materials, and are grouped by manufacturing mold cavity to ensure the lowest variation in extinction coefficient.
- **Manufactured by BRAND®**—One of the world's largest producers of cuvettes, BRAND®'s nearly thirty years of quality cuvette manufacturing experience is your assurance of reliability.



BRAND® semi-micro disposable cuvette

Description	Pack of	Cat. No.	2019 List Price
BRAND® polystyrene (PS) cuvettes (specifications on p. 103)			
Macro	500	759070D	\$82.40
Macro	100	759071D	19.00
Semi-micro	500	759075D	89.60
Semi-micro	100	759076D	20.00
BRAND® methacrylate (PMMA) cuvettes (specifications on p. 103)			
Macro	500	759080D	116.20
Macro	100	759081D	26.40
Semi-micro	500	759085D	100.80
Semi-micro	100	759086D	22.00
Polypropylene cuvette rack, 16 numbered positions	1	759500	27.20

Transmission curves of different cuvettes

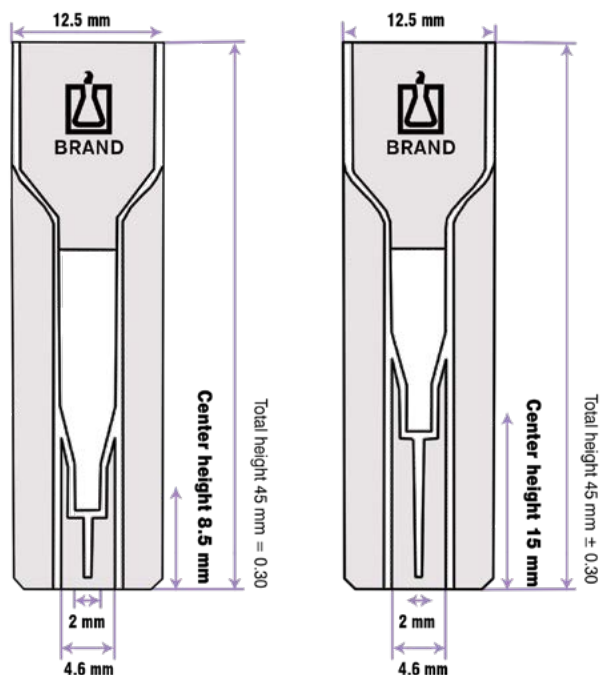


To achieve reproducible results: Before the actual measurement, always determine the blank value for the cuvette, and determine the linear range of measurement by means of a calibration curve.

BRAND® UV-Cuvettes

UV-transparent, disposable cuvettes from BRAND® replace expensive, fragile quartz cuvettes and are excellent for DNA, RNA, and protein analyses between 230-900 nm. See transmission curves on page 101. Made from a proprietary polycyclical olefin, they are resistant to many aggressive solvents and eliminate the tedious maintenance, cleaning, and contamination risk of quartz cuvettes. Additionally, they fit most commercial spectrophotometers and photometers without requiring the use of special adapters.

- **Eliminate the hassles of quartz cuvettes**—No more washing, cross-contamination, breakage and expense associated with fragile quartz cuvettes.
- **Allow smaller sample sizes**—In addition to macro (2.5 mL) and semi-micro (1.5 mL) sizes, BRAND® UV-Cuvettes are also available in ultra-micro sizes that require only 70 μ L of sample volume.
- **Ultra-micro cuvettes are available individually-wrapped**—Independently-certified DNA-, DNase-, RNase-free for an extra degree of sample protection.
- **Resist most chemicals**—UV-Cuvettes may be used with most polar organic solvents, as well as a broad range of acids and bases. They have much greater chemical resistance than PS or PMMA cuvettes and are compatible with chemicals such as acetone, butanol, DMF, and concentrated hydrochloric acid.
- **Perform consistently**—UV-Cuvettes are manufactured from scratch-resistant materials, and are grouped by manufacturing mold cavity number to ensure the lowest variation in extinction coefficient.
- **Manufactured by BRAND®**—One of the world's largest cuvette manufacturers. Nearly thirty years of experience producing quality cuvettes is your assurance of reliability.



Two window heights to fit most spectrophotometers

To reduce the sample size required by BRAND®'s ultra-micro sized UV-Cuvettes, the floor of the sample chamber is elevated to just below the light path. As there is not a single standard for light beam height, BRAND® offers ultra-micro cuvettes with two different z-dimensions to help sample conservation.

Not sure of the beam height of your instrument? Check our website for help with cuvette selection www.brandtech.com/beam_heights.



Polypropylene cuvette rack with 16 numbered positions. Autoclavable to 121° C



Specifications – BRAND® Cuvette

Filling volume	Ultra-micro	Semi-micro	Macro
Minimum	70 µL	1.5 mL	2.5 mL
Maximum	550 µL (15 mm window) 850 µL (8.5 mm window)	3.0 mL	4.5 mL
Window dimensions	2 x 3.5 mm (minimum)	4.5 x 23 mm	10 x 35 mm
Light path	10 mm	10 mm	10 mm
Range of application UV	230-900 nm	230-900 nm	230-900 nm
Range of application PMMA	—	300-900 nm	300-900 nm
Range of application PS	—	340-900 nm	340-900 nm

www.brandtech.com/cuvette_comp.asp for additional cuvette compatibility information.



BRAND® ultra-micro UV-Cuvettes. 15 mm (left) and 8.5 mm (right) window heights

UV-transparent, chemical-resistant, and disposable...
save time and money



Round polyethylene caps provide plug-seal for reliable sample storage. Available in 4 colors!

Description	Qty./Pack	Cat. No.	2019 List Price
BRAND® UV-Cuvette (specifications above)			
Macro	100	759170	\$86.40
Semi-micro	500	759165	388.00
Semi-micro	100	759150	88.60
BRAND® UV-Cuvette ultra-micro (15 mm window height)	500	759230	388.00
BRAND® UV-Cuvette ultra-micro (15 mm window height)	100	759220	86.40
Individually-wrapped BRAND® UV-Cuvette ultra-micro (15 mm window height)	100	759235	126.60
BRAND® UV-Cuvette ultra-micro (8.5 mm window height)	500	759210	388.00
BRAND® UV-Cuvette ultra-micro (8.5 mm window height)	100	759200	86.40
Individually-wrapped BRAND® UV-Cuvette ultra-micro (8.5 mm window height)	100	759215	126.60
Cuvette caps and accessories			
Cuvette caps, round, for ultra-micro cuvettes, Blue	100	759240	28.20
Cuvette caps, round, for ultra-micro cuvettes, Yellow	100	759241	28.20
Cuvette caps, round, for ultra-micro cuvettes, Green	100	759242	28.20
Cuvette caps, round, for ultra-micro cuvettes, Orange	100	759243	28.20
Polypropylene cuvette rack, 16 numbered positions	1	759500	27.20

Examples of chemical resistance of UV-Cuvettes

Substance	UV-Cuvette
Acetic acid 100%	+
Acetone	+
Ammonia	+
Benzaldehyde	+
Butanol	+
Chloroform	-
Dioxane	+
DMF	+
Ethyl acetate	+
Hexane	-
Hydrochloric acid 36%	+
Hydrofluoric acid 10%	+
Isopropanol	+
Nitric acid 65%	+
Sodium hydroxide	+

BRAND® Fluorimetry Cuvettes

When results count, choose BRAND® disposable cuvettes with four optically clear sides for fluorescence applications. Available in high quality polystyrene for measurements from 340 nm to 800 nm, as well as a proprietary polymer for precise measurements in both the visible and UV-range (230-800 nm), allowing for shorter excitation wavelengths than have been traditionally possible with disposable cuvettes. This UV-transparent plastic also has virtually no autofluorescence for high signal-to-noise ratios. Cuvettes have a standard 10 mm light path for use in all standard fluorimeters.

BRAND® fluorescence cuvettes, like all BRAND® cuvettes, are made of the highest quality raw materials, precision molded for the best optical clarity, with parallel walls of uniform thickness to optimize transmission and minimize refraction. They are mold-cavity sorted ensuring cuvette-to-cuvette consistency for highly reproducible results. With an industry standard 10 mm light path, BRAND® 4-sided clear cuvettes fit most common fluorimeters.

Cuvettes are packaged in trays containing 100 cuvettes. Trays are made of low-dust, non-scratching, expanded polystyrene.

- **Mold-cavity sorted**—Each tray contains cuvettes from a single mold cavity to minimize variability between cuvettes.
- **Manufactured by BRAND®**—One of the leading manufacturers of premium quality disposable cuvettes for nearly thirty years, BRAND® is your assurance of reliability.

Technical Data

Specifications – BRAND® Fluorimetry Cuvettes

Minimum filling volume	2.5 mL
Maximum filling volume	4.5 mL
Window dimensions	10 x 35 mm
Light path	10 mm
Exterior dimensions	12.5 x 12.5 x 45 mm

Description	Cat. No.	2019 List Price
BRAND® polystyrene (PS) Fluorimetry Cuvettes		
Pack of 100	759030	\$20.40
Pack of 500	759035	86.00
BRAND® UV-transparent Fluorimetry Cuvettes		
Pack of 100	759125	91.40
Pack of 500	759128	408.60



About fluorescence measurement

Fluorescence occurs when energy is supplied to a sample by electromagnetic radiation, usually UV-light (photons). The energy “excites” the molecules thereby “kicking” an electron of an atom from a lower energy state into an excited higher energy state. The lifetime of the excited state is very short (1-100 ns). When the electron falls back to a lower energy state it releases the energy in the form of light (i.e., fluorescence). Some of the fluorescent light passes through a monochromator and then reaches a detector. The fluorescent light is emitted in all directions, however the detector is usually placed at 90° to the excitation light beam to minimize interference. Hence the need for four-sided clear cuvettes for fluorescence applications.