

# *Screw Cap Micro Tubes*

For transport, storage and sample preparation



*Reliable quality and versatility*

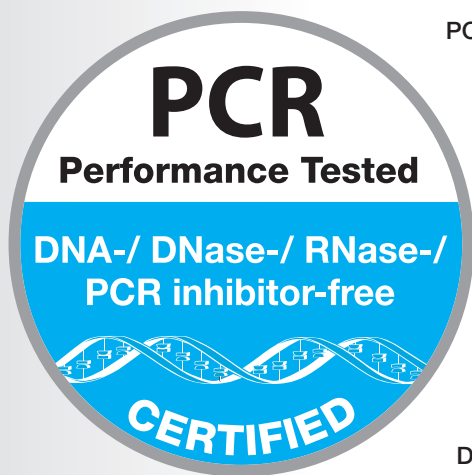
# Uncompromising quality and purity

Over 30 years ago, Sarstedt introduced a new laboratory standard: the safe screw cap micro tube. The Sarstedt screw cap micro tube is now used worldwide and is a crucial part of daily work in all areas of laboratories, industries and research.

The secure screw cap closure with O-ring seal and the robust polypropylene tube make this product a versatile tool that is ideal for centrifugation, transport, and storage of high quality synthetic oligo-nucleotides, enzymes, buffers etc.

To accommodate the highly sophisticated needs of customers working in the field of medical research, environmental technology, the pharmaceutical and food industries as well as in cellular and molecular biology, screw cap micro tubes are now also available in the certified “**PCR Performance Tested**” and “**Biosphere® plus**” purity standards.

Clean room conditions, skilled personnel in protective clothing as well as automated processes form the basic prerequisites for award of the certified Sarstedt quality standards. Since 1995, we have provided our customers with a product quality tailored to their specific applications to ensure utmost reproducibility in their analyses. Our certification standards are continually adjusted to the state of research providing reliable safety in routine work at any time.



## PCR Performance Tested quality

Sarstedt's quality and purity standard PCR Performance Tested has been created to accommodate the specific requirements and needs involved in working with nucleic acids (e.g. qPCR, PCR, purification and storage). Thanks to this quality grade, customers can use Sarstedt disposables directly in nucleic acid analytics.

**PCR Performance Tested** products meet the following purity criteria that are certified by an independent laboratory:

- ✓ DNA-free
- ✓ DNase-/RNase-free
- ✓ PCR inhibitor-free

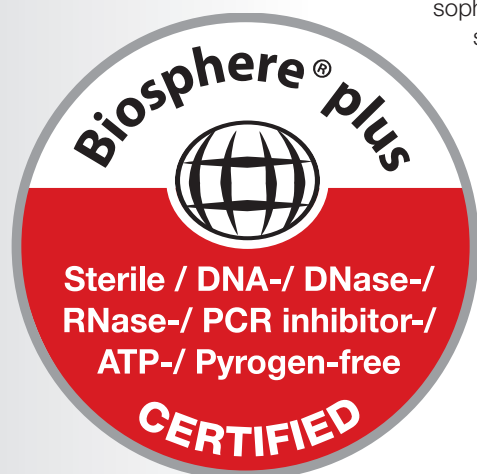
We guarantee compliance with the following threshold values:

Human DNA <0.5 pg/μl · Bacterial DNA <0.02 pg/μl  
DNase <1x10<sup>-5</sup> U/μl · RNase <1x10<sup>-9</sup> Kunitz units/μl

Technical modifications reserved

## Biosphere® plus quality - the Plus in safety

In recent years, scientific analysis methods have been continuously refined in a way to actually identify individual molecules. As sensitivity increases, disposables are to meet even more sophisticated requirements so that users can be sure to reliably exclude even the smallest contamination. The new Biosphere® plus quality constitutes a purity standard that enables utmost protection against any possible contamination.



In addition to our high-purity production conditions, all products certified Biosphere® plus are subjected to a validated decontamination process to ensure values significantly lower than the thresholds guaranteed for the PCR Performance Tested quality. Furthermore, Biosphere® plus products are ATP- and pyrogen-free as well as sterile in accordance with ISO 11135.

**Biosphere® plus** products meet the following purity criteria that are certified by an independent laboratory:

- ✓ Sterile
- ✓ DNA-free
- ✓ DNase-/RNase-free
- ✓ PCR Inhibitor-free
- ✓ ATP-free
- ✓ Non-pyrogenic/endotoxin-free





We guarantee compliance with the following threshold values:

Human DNA <5.0 fg/μl · Bacterial DNA <0.2 fg/μl · DNase <5x10<sup>-7</sup> U/μl  
RNase <5x10<sup>-11</sup> Kunitz units/μl · ATP <1x10<sup>-12</sup> mmol/μl · Pyrogens < 0.002 EU/ml  
Sterility validated according to ISO 11135

Technical modifications reserved




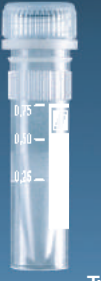



## PCR Performance tested micro tubes with looped screw cap - assembled

			
Type A	Type C	Type D	Type I
0.5 ml	1.5 ml	1.5 ml	2.0 ml
72.730.416	72.703.416	72.692.415	72.694.416

Packaging: 100 pcs./bag, 500 pcs./inner case, 1,000 pcs./case







## PCR Performance tested micro tubes with screw cap - assembled

				
Type A	Type C	Type D	Type H	Type I
0.5 ml	1.5 ml	1.5 ml	2.0 ml	2.0 ml
72.730.406	72.703.406	72.692.405	72.693.465	72.694.406

Packaging: 100 pcs./bag, 500 pcs./inner case, 1,000 pcs./case



## Biosphere® plus micro tubes with looped screw cap - non-assembled

			
Type A	Type C	Type D	Type I
0.5 ml	1.5 ml	1.5 ml	2.0 ml
72.730.217	72.703.217	72.692.210	72.694.217

Packaging: 25 pcs./bag, 250 pcs./inner case, 500 pcs./case

# Screw cap micro tubes – the versatile solution



Industrially barcoded micro tubes as transport tubes for synthetic oligonucleotides, enzymes, buffers etc.

In addition to our popular sterile tubes with assembled screw cap, non-assembled, double-bagged sterile options are available specifically for industrial biotechnology.

- **Special sterile packaging – ideal for clean room production**  
Each bag is sub-packaged in a second, additional bag. Removing the outer bag leaves a complete and sterile package for convenient processing in clean rooms or sterile environments. This packaging option is ideal for clean room dosing applications, e.g. for test kits.
- **Barcode**  
On request, the screw cap micro tube types A, C, E, G and I are available with customized barcode label. Customers applying their own labels may prefer screw cap micro tubes without knurls (types F and G) with enlarged labelling space.



## General product features of screw cap micro tubes:

- **Leak-proof screw cap with O-ring**
- **Centrifugation to 20,000 x g\***
- **Optionally available with looped cap** for the prevention of mix-ups and resulting sample contamination
- **High-grade polypropylene material, autoclavable at 121°C\***
- **Special gripper racks** from break-proof, transparent polycarbonate for single-handed opening and closing of knurled tubes

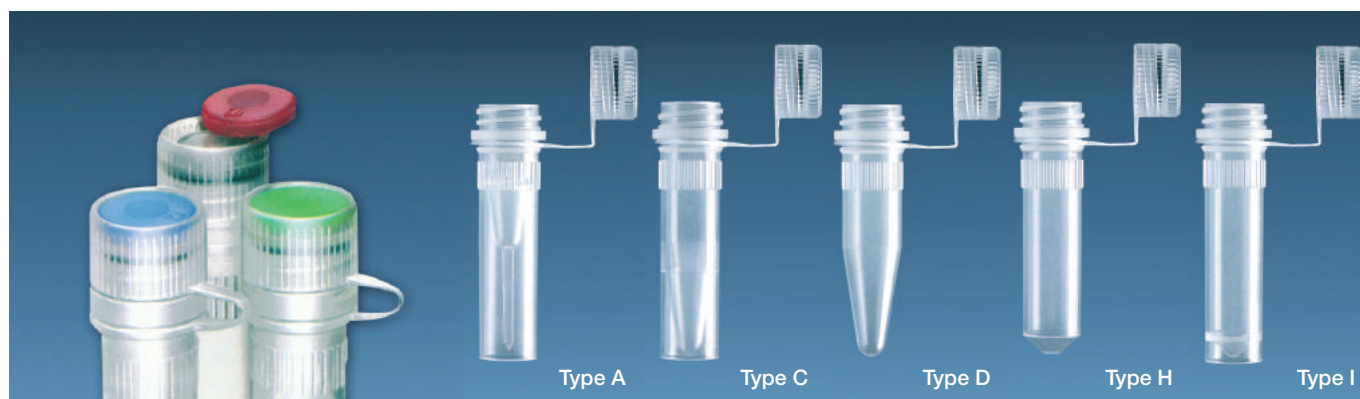
\* Refer to important notes on centrifugation and autoclaving on the back (FAQs).

## Gripper Rack “Series 18”, “Series 20” and “Series 48”

Racks are made from break-resistant material. The knurled apertures enable single-handed opening and closing of screw cap micro tubes.

Order No.	Description	Dimensions in mm (height x length x width)
93.894	For 18 tubes (3 rows with 6 apertures each)	40 x 137 x 70
93.848.100	For 20 tubes (2 rows with 10 apertures each)	40 x 257 x 62
93.1428	For 48 tubes (4 rows with 12 apertures each)	40 x 257 x 90

## Screw cap micro tubes with looped screw cap



Description	Packaging pcs./case	0.5 ml	1.5 ml	1.5 ml	2.0 ml	2.0 ml
Cap not assembled	5,000	72.730.100		72.692.100	72.693.100	72.694.100
Cap assembled, sterile	1,000	72.730.105		72.692.105	72.693.105	72.694.105
With writing space, cap not assembled	5,000	72.730.107		—	—	
With writing space, cap assembled, sterile	1,000	72.730.106		—	—	
With writing space + graduation*, cap not assembled	5,000	—		—	—	72.694.107
With writing space + graduation*, cap assembled, sterile	1,000	—		—	—	72.694.106
PCR Performance Tested, cap assembled, with print	1,000	72.730.416	72.703.416	72.692.415 without print		72.694.416
Biosphere®, cap not assembled, with print	500	72.730.217	72.703.217	72.692.210 without print		72.694.217



\* For technical reasons, graduations can be printed to 1.25 ml only.

— Not available for technical reasons

Available on request

## Colour-coded inserts for looped screw caps



The O-Ring in our screw caps provides maximum safety for storage, transport and centrifugation of the screw cap micro tubes.

Order No.	65.713	65.713.002	65.713.004	65.713.005
Colour	neutral	red	yellow	green
Order No.	65.713.006	65.713.007	65.713.009	65.713.010
Colour	blue	violet	white	black

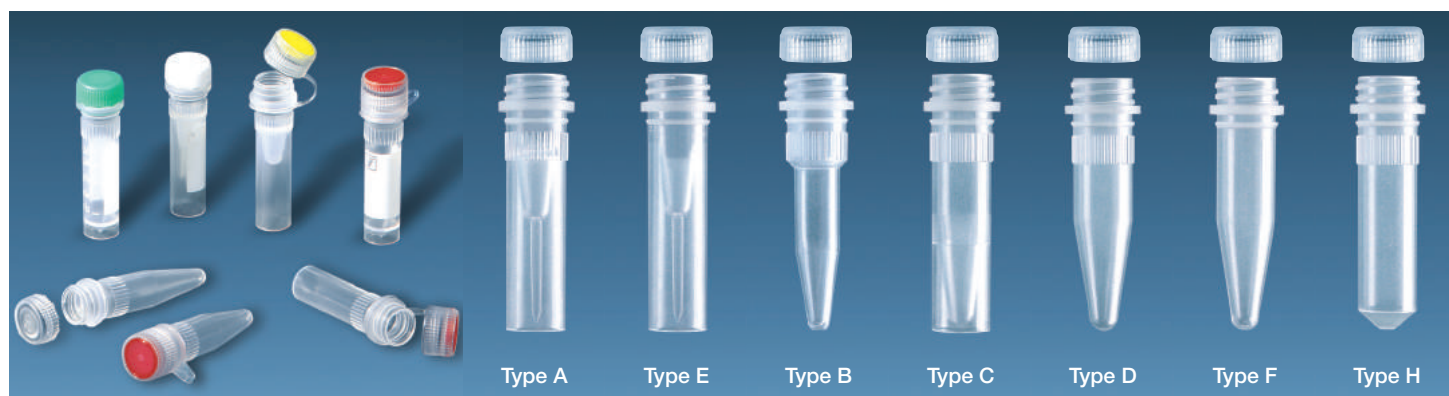
Packaging: 500 pcs./bag, 5,000 pcs./case

Separate looped cap:

**Order No. 65.712**, packaging: 500 pcs./bag, 5,000 pcs./case

# Ordering Information

## Screw cap tubes with standard cap



Description		Packaging pcs./case	Type A 0.5 ml	Type E 0.5 ml	Type B 0.5 ml	Type C 1.5 ml	Type D 1.5 ml	Type F 1.5 ml	Type H 2.0 ml
Knurls									
without print	Without cap	5.000	72.730.003	72.785	72.733.010	72.703	72.607	72.687	72.608
	Cap enclosed	5.000	72.730		72.733.001		72.692		72.693
	Cap assembled, sterile	1.000	72.730.005	72.785.005			72.692.005		72.693.005
	Amber, without cap	5.000	72.730.004			72.703.004	72.607.004		72.608.004
	Double bag packaging (tube only, without cap), sterile	2.500	72.730.711				72.607.772	72.687.772	
	PCR Performance Tested, cap assembled	1.000					72.692.405		72.693.465
with print	With writing space, without cap	5.000	72.730.009		—		—	—	—
	With writing space, cap enclosed	5.000	72.730.007		—		—	—	—
	With writing space, cap assembled, sterile	1.000	72.730.006	—	—		—	—	—
	With writing space + graduation*, cap enclosed	5.000	—	—	—		—	—	—
	With writing space + graduation*, cap assembled, sterile	1.000	—	—	—		—	—	—
	With writing space + graduation*, without cap	5.000	—	—	—		—	—	—
	PCR Performance Tested, cap assembled	1.000	72.730.406			72.703.406			

\* For technical reasons, graduation can be printed to 1.25 ml only.

— Not available for technical reasons

Available on request

# Screw caps



Type I	Type G
2.0 ml	2.0 ml
72.609	72.664
72.694	
72.694.005	
72.609.003	
72.609.711	72.664.711
72.694.007	
72.694.006	
72.609.001	
72.694.406	

## Coloured screw caps for easy identification



All screw caps made from polypropylene complete with the integral O-ring provide maximum safety for storage, transport and centrifugation of the screw cap micro tubes.

Order No.	65.716	65.716.001	65.716.002	65.716.003	65.716.004	65.716.005
Colour	neutral	blue	yellow	red	pink	green
Order No.	65.716.006	65.716.007	65.716.008	65.716.009	65.716.022	65.716.999
Colour	orange	black	violet	brown	white	colour mix 10 colours

Packaging: 500 pcs./bag, 10,000 pcs./case

## Screw caps, sterile, in double bag packaging

Each bag is sub-packaged in a second, additional bag. Removing the outer bag leaves a complete and sterile package for convenient processing in clean rooms or sterile environments.

Order No.	65.716.720	65.716.721	65.716.723	65.716.725	65.716.726
Colour	yellow	red	blue	neutral	green
Order No.	65.716.727	65.716.728	65.716.729	65.716.755	65.716.757
Colour	orange	black	brown	violet	white

Packaging: 500 pcs./double bag, 5,000 pcs./case

## Membrane screw cap

This innovative screw cap features a membrane that can be pierced for easy dosing or sampling. Opening and closing the tubes is no longer necessary so that samples can be processed more economically and with reduced risk of contamination.



The membrane screw cap is compatible with all Sarstedt screw cap micro tubes. Customized options are available on request.

Order No.	Description	Packaging
65.3716	Screw cap with pierceable membrane	2,000 pcs./case

## Screw cap micro tube with volume reducer



For applications with a small initial volume, it may be important to minimise adhesion of the sample to the tube wall. With Sarstedt's volume reducer, the initial volume of 0.5 ml is decreased to 100 µl, thereby reducing the respective dead volume above the sample.

Order No.	Description	Packaging
72.733.201	Screw cap micro tube, PP volume reduction to 100 µl	500 pcs./bag 5,000 pcs./case
65.710	Screw cap for volume reduction to 100 µl	500 pcs./bag 5,000 pcs./case

## Frequently asked questions:

- **What are the dimensions of screw cap micro tubes?**

The total length including the screw cap is 46.0 mm. The tube with looped cap is 49.0 mm long. The diameter below the rim is 10.8 mm, making the tubes compatible with most standard micro centrifuges.

- **What is the maximum centrifugation force?**

Sarstedt's screw cap micro tubes can be centrifuged to 20,000 x g. These conditions were confirmed in tests with a medium density solution of 1.06 g/ml, tubes filled to nominal volume, centrifugation at 20°C, for 15 min. in a fixed angle rotor.

- **Can screw cap micro tubes be subjected to autoclaving?**

Screw cap micro tubes and screw caps can be autoclaved at 121°C without significantly impairing their mechanical properties. It is important not to tighten the cap to seal. Users must test for themselves if autoclaving has any effect on product features that may adversely influence the individual application concerned.

- **Are screw cap micro tubes suitable for use in the deep-freeze temperature range?**

For decades, Sarstedt's screw cap micro tubes have been used for applications in the deep-freeze temperature range. Successful freezing of the tubes always depends on a variety of factors, e.g. the medium to be frozen, the rack used or the mechanical strain exerted on the tubes. Therefore, the suitability of the tubes for use in the deep-freeze temperature range should always be tested according to individual procedures. For cryogenic applications, we recommend Sarstedt's CryoPure tubes.

- **Is there a recommended torque for screw caps?**

The torque used for mechanically applying the screw caps should be 15 to 18 Ncm.

- **Labelling options?**

At a minimum order of 50,000 pcs., all screw cap micro tube types A, C, E, G and I can be provided with a 25 x 21.5 mm label. On request, labels can be supplied with customized print. In addition, labels can be printed with any standard barcode type. As labels are subjected to various stress factors depending on the individual application, e.g. temperature fluctuations, contact with fluids and/or chemical solutions, our range includes labels and print colours made from a variety of materials.

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