

Screw Cap Micro Tubes

Transport, storage and sample preparation



Life Science

Screw cap micro tubes

When SARSTEDT introduced the screw cap micro tube about 40 years ago, it established a new class of safe screw cap tube which has proven its worth time and again and has become indispensable in modern research and diagnostics.

The particularly safe screw cap with O-ring sealing in conjunction with the stable polypropylene tube makes the screw cap micro tube a versatile piece of equipment.

They are ideal centrifuge tubes as well as transport or storage vessels, including for high-quality oligonucleotides, enzymes or buffers.

With filling volumes of 0.5 ml to 2.0 ml, a range of vessel and sealing options and four high-quality purity grades, SARSTEDT screw cap micro tubes provide a suitable solution for all requirements.

Your Sarstedt Team

SARSTEDT quality seal for laboratory products

Clean room conditions, trained staff in protective clothing and automatic production processes are the prerequisites for the certified SARSTEDT quality standards 'PCR Performance Tested' and 'Biosphere® plus'.

Since 1995 we have offered our customers a product quality tailored to their needs in order to enable the highest level of reproducibility in their analyses. Our certifications are continually adapted to the state of research, in order to ensure the necessary safety in routine laboratory work at all times.

The Biosphere® plus quality of the screw cap micro tubes

avoids false-positive results, for example in DNA analysis and in forensic and diagnostic matters. Our PCR Performance Tested quality items are particularly suitable for the storage of PCR reagents, buffers and plasmids for example. Regular product tests by an independent laboratory confirm that the narrow limit values are adhered to. On our website you will find a corresponding certificate for each batch.

PCR Performance Tested quality • The SARSTEDT quality and purity standard



'PCR Performance Tested' was specifically tailored on the basis of the requirements and the needs of working with nucleic acids (e.g. qPCR, PCR, purification and storage). With this quality classification you get assurance that SARSTEDT consumables can be used directly in nucleic acid analytics.

PCR Performance Tested - items fulfil the following purity criteria, which are certified by an independent laboratory:

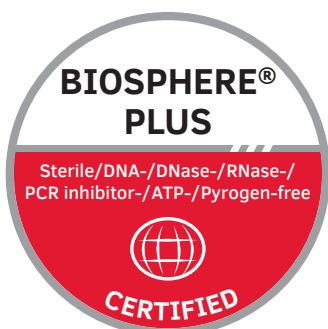
- > **DNA-free**
- > **Free from DNase and RNase**
- > **PCR inhibitor-free**

We guarantee that the following limit values will be adhered to:

**Human DNA <0.5 pg/μl · Bacterial DNA <0.02 pg/μl · DNase <1x10⁻⁵ U/μl
RNase <1x10⁻⁹ Kunitz units/μl**

Subject to technical modifications.

Biosphere® plus quality • Added assurance



Scientific analysis methods have become increasingly more refined in recent years, so that even individual molecules can be detected. Due to the heightened sensitivity, the user places significantly greater demands on the consumable material compared to just a few years ago, in order to be able to rule out even the slightest contamination.

With the new Biosphere® plus quality, a purity standard was developed which offers the user the highest possible protection against any contamination.

All Biosphere® plus certified products undergo a validated decontamination procedure, in addition to the ultrapure production conditions. In this way, the limit values can be significantly lower compared to the PCR Performance Tested quality. In addition, Biosphere® plus items are free from ATP and are pyrogen-free/endotoxin-free and sterile in accordance with ISO 11135.

Biosphere® plus - items fulfil the following purity criteria, which are certified by an independent laboratory:

- > **Sterile**
- > **DNA-free**
- > **Free from DNase and RNase**
- > **PCR inhibitor-free**
- > **ATP-free**
- > **pyrogen-free/endotoxin-free**

We guarantee that the following limit values will be adhered to:

**Human DNA <0.5 fg/μl · Bacterial DNA <0.2 fg/μl · DNase <5x10⁻⁷ U/μl
RNase <5x10⁻¹¹ Kunitz units/μl · ATP <1x10⁻¹² mmol/μl · Pyrogens <0.002 EU/ml
Sterility validated according to ISO 11135**

Subject to technical modifications.

Versatile for routine work and research

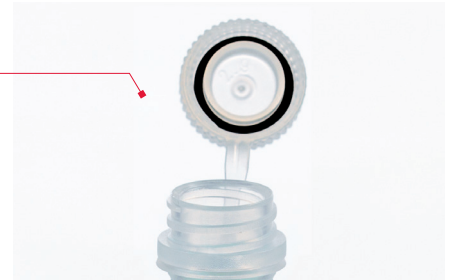


Three volumes – universal application

Available in three different volumes and printed with a clear scaling, the SARSTEDT screw cap micro tubes are ideal for all filling capacities, from a few microlitres up to 2 millilitres. While 0.5 ml screw cap micro tubes reduce sample loss caused by evaporation of small volumes, 2.0 ml vessels are ideal for storing buffers, loading solutions, media, or other higher volume reagents. Thanks to their compact dimensions, they can also be used in many microcentrifuges and are compatible with most racks and storage systems.

Secure closure – maximum reliability

The precise thread and the flexible O-ring ensure the special sealing security of our screw cap micro tubes. Thanks to the reliable sealing mechanism, they are also suitable for filling with radioactive, infectious and expensive substances, as a reaction vessel under thermal load or for long-term storage.



Practical knurling – easy handling

The coordinated system of knurling at the edge of the vessel and special racks allows for one-handed screwing of the screw cap micro tubes. This convenient handling is particularly useful in applications where contact with the sample is not permitted, such as when handling infectious or radioactive substances.

Colour coding – individual identification

Schraubdeckel und Codierplättchen für anhängende Schraubverschlüsse in unterschiedlichen Farben bieten vielfältige Kennzeichnungsmöglichkeiten. Dies erleichtert die sichere Zuordnung von Reagenzien in Routineanwendungen, Kits und Lagerung.





The particularly secure sealing principle and the resistant polypropylene tube are the distinguishing features of the SARSTEDT screw cap micro tubes. Additional product features at a glance:

- Centrifugation resistance up to 20,000 x g (tested at 20°C for 20 minutes in fixed-angle rotor, filled at nominal volume)
 - Autoclavable – screw cap micro tubes and caps can be autoclaved at 121°C
 - Tested tightness according to ADR & IATA – all screw cap micro tubes are tested at a vacuum of 0.95 bar
 - Stable skirted base – secure footing on the laboratory bench, even without a rack
 - Special knurling – one-handed screwing is easily possible by locking into the special rack
- Due to the diverse applications and specific requirements for the laboratory, analysis or filling, SARSTEDT offers a range of tube and cap variants.
 - Resistant printing – the large labelling field allows for clear labelling, the scaling facilitates rapid volume estimation
 - Also available without printing – the transparent polypropylene facilitates the precise inspection of the sample
 - Without knurling – the larger area is ideal for labelling
 - Small packaging units – the Biosphere® plus quality screw cap micro tubes are packaged at 25 pieces in a practical bag and at 250 pieces in a compact case
 - Attached cap – the retaining loop cap ensures the safe allocation of the lid to the tube during use, the possibility of accidentally exchanging caps is eliminated

Low binding screw cap micro tubes – minimal sample loss

Due to the trend towards increasingly smaller volumes, it is becoming ever more important to minimise any interactions between the analytes and the tubes used. SARSTEDT has therefore developed screw cap micro tubes and reaction tubes that ensure a maximum recovery rate and that have been specially optimised for the requirements of protein and DNA analytics. Minimising sample loss – especially for costly and valuable reagents – is essential to save costs, achieve accurate analysis results, and ensure secure storage over a long period of time.

Special high-quality plastics are used for SARSTEDT low binding vessels. A repellent coating, for example with silicones,

which could falsify the analyses is not necessary due to the special materials.

Product advantages of the low binding screw cap micro tubes at a glance:

- Special polypropylene – minimal binding, maximum recovery, low loss
- Certified PCR Performance Tested quality – DNA, DNase/RNase and PCR inhibitor free
- Practical, small packaging units – 100 pieces in a minigrip bag for reduced risk of contamination

Low DNA binding – minimal DNA loss

Low DNA binding screw cap micro tubes are suitable for all applications where DNA is used. For example, they can be used for the storage of plasmids, oligonucleotides or cell extracts and allow for maximum DNA yield, even after long storage times and at the smallest volumes.

Low protein binding – minimal protein loss

Low protein binding screw cap micro tubes are particularly suitable for the storage, filling and analysis of antibodies, enzymes and other valuable substances both in the field of proteomics and in many other routine applications. The low protein-binding to the vessel wall ensures maximum recovery, improved analysis and clearer results.

Ordering information – Low binding screw cap micro tubes

| Low-binding | Volume | Packaging unit/bag/inner box/case | Order no. |
|-------------|--------|-----------------------------------|------------|
| Protein | 1.5 ml | 100 / 500 / 1,000 | 72.703.600 |
| DNA | 1.5 ml | 100 / 500 / 1,000 | 72.703.700 |
| Protein | 2.0 ml | 100 / 500 / 1,000 | 72.694.600 |
| DNA | 2.0 ml | 100 / 500 / 1,000 | 72.694.700 |








Screw cap micro tubes












Screw cap micro tubes without print

Screw cap micro tubes without printing are ideal for applications in which an accurate inspection of the sample is particularly important. The transparent polypropylene facilitates the visual inspection of the content. Screw cap micro tubes without knurling are particularly suitable for labelling.

Ordering information – Screw cap micro tubes without print – 0.5 ml

| | Purity/version | With skirted base with knurling | Conical with knurling | With skirted base without knurling | Packaging unit/bag/case |
|---|--|---------------------------------|-----------------------|------------------------------------|-------------------------|
|  | sterile*  | 72.730.105 | | | 100 / 1,000 |
| | sterile*  | 72.730.005 | | 72.785.005 | 100 / 1,000 |
| | –  | 72.730.100 | | | 500 / 5,000 |
| | –  | 72.730 | | 72.733.001 | 500 / 5,000 |
| | – without | 72.730.003 | | 72.733.010 | 72.785 |

Ordering information – Screw cap micro tubes without print – 1.5 ml

| | Purity/version | With skirted base with knurling | Conical with knurling | Conical without knurling | Packaging unit/bag/case |
|---|---|---------------------------------|-----------------------|--------------------------|-------------------------|
|  |   | | 72.692.210 | | 25 / 500 |
| |   | | 72.692.415 | | 100 / 1,000 |
| |   | | 72.692.405 | | 100 / 1,000 |
| | sterile*  | | 72.692.105 | | 100 / 1,000 |
| | sterile*  | | 72.692.005 | | 100 / 1,000 |
| | –  | | 72.692.100 | | 500 / 5,000 |
| | –  | | 72.692 | | 500 / 5,000 |
| | – without | 72.703 | 72.607 | 72.687 | 500 / 5,000 |








Key:

 = attached screw cap

 = standard screw cap

* = assembled












Ordering information – Screw cap micro tubes without print – 2.0 ml

| | Purity/version | With skirted base with knurling | Conical with knurling | With skirted base without knurling | Packaging unit/bag/case |
|---|---|---------------------------------|-----------------------|------------------------------------|-------------------------|
|  |  *  | | 72.693.465 | | 100 / 1,000 |
| | sterile*  | 72.694.105 | 72.693.105 | | 100 / 1,000 |
| | sterile*  | 72.694.005 | 72.693.005 | | 100 / 1,000 |
| | –  | 72.694.100 | 72.693.100 | | 500 / 5,000 |
| | –  | 72.694 | 72.693 | | 500 / 5,000 |
| | – without | 72.609 | 72.608 | 72.664 | 500 / 5,000 |

Screw cap micro tubes with print

For easy, secure labelling, SARSTEDT offers screw cap micro tubes with a clear and resistant labelling field. The scaling facilitates rapid volume estimation.

Ordering information – Screw cap micro tubes with print

| | Purity/version | With skirted base with knurling | With skirted base with knurling | With skirted base with knurling | Packaging unit/bag/case |
|---|---|---------------------------------|---------------------------------|---------------------------------|-------------------------|
| 0.5 ml 1.5 ml 2.0 ml  |   | 72.730.217 | 72.703.217 | 72.694.217 | 25 / 500 |
| |  *  | 72.730.416 | 72.703.416 | 72.694.416 | 100 / 1,000 |
| |  *  | 72.730.406 | 72.703.406 | 72.694.406 | 100 / 1,000 |
| | sterile*  | 72.730.106 | | 72.694.106 | 100 / 1,000 |
| | sterile*  | 72.730.006 | | 72.694.006 72.694.996** | 100 / 1,000 |
| | –  | 72.730.107 | | 72.694.107 | 500 / 1,000 |
| | –  | 72.730.007 | | 72.694.007 | 250 / 5,000 |
| | – without | 72.730.009 | | 72.609.001 | 250 / 5,000 |

Key:



= attached screw cap



= standard screw cap

* = assembled

** = colour mix with 10 different cap colours

Screw cap micro tubes for special applications

Secure storage of particularly small volumes

Highly concentrated or expensive reagents and samples with a volume of just a few microlitres require maximum recovery with minimal fluid loss. The volume of the vessel is reduced to 100 µl by the SARSTEDT volume limiter and the special 0.5 ml screw cap micro tube. The perfectly fitting cap, which securely seals up the lower region of the vessel, reduces evaporation and prevents the adhesion of the sample in the upper region of the vessel. Together with the secure sealing principle, this system is ideal for storing, retaining and filling small volumes.



Ordering information – Screw cap micro tube with volume limiter

| Description | Packaging unit/bag/case | Order no. |
|--|-------------------------|------------|
| Screw cap micro tube for limiting volume | 500 / 5,000 | 72.733.201 |
| Screw cap for limiting volume | 500 / 5,000 | 65.710 |

Secure light protection through brown-coloured screw cap micro tubes

Brown-coloured screw cap micro tubes are particularly suitable for the storage of light-sensitive substances such as vitamins, enzymes or antibodies with fluorescent dyes. The protective colouration of the vessel wall provides protection against UV rays and security in the examination of photosensitive analytes. The vessels are distinguished by the following advantages:

- Light protection by brown colouration – UV radiation reduced by more than 90%
- Skirted base – secure handling on the laboratory bench
- Knurling – one-handed screwing in the special rack
- Without screw cap – separately available coloured caps allow for individual marking

Ordering information – Brown-coloured screw cap micro tubes

| Volume | Packaging unit/bag/case | Order no. |
|--------|-------------------------|------------|
| 0.5 ml | 500 / 5,000 | 72.730.004 |
| 1.5 ml | 500 / 1,000 | 72.703.004 |
| 2.0 ml | 500 / 5,000 | 72.609.003 |













Caps and coding

Coloured screw caps

All SARSTEDT screw cap micro tubes can be combined with separately available coloured screw caps to facilitate labelling and sample identification. In addition to the naturally coloured, transparent screw cap, 11 different colours are available, which can also be ordered as a practical colour mix of 100 caps of each colour.

Ordering information – Coloured screw caps

| Colour | Order no. | Colour | Order no. |
|---|------------|--|------------|
| natural <input checked="" type="checkbox"/> | 65.716 | orange  | 65.716.006 |
| blue  | 65.716.001 | black  | 65.716.007 |
| yellow  | 65.716.002 | violet  | 65.716.008 |
| red  | 65.716.003 | white  | 65.716.022 |
| pink  | 65.716.004 | brown  | 65.716.009 |
| green  | 65.716.005 | Colour mix (100 of each in the bag) | 65.716.999 |

Packaging: 500 units/bag · 10,000 units/case

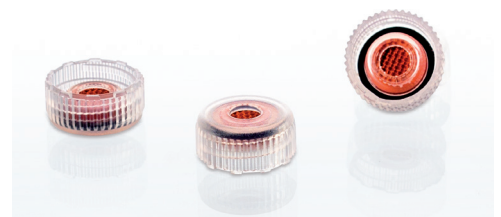


Pierceable membrane cap – efficient and safe processing

The special membrane cap with its pierceable lid membrane is ideal for automated filling and direct adaptation to analysers. Available separately, it can be combined with all SARSTEDT screw cap micro tubes. Time-consuming opening and closing is thus no longer necessary, efficient processing is accelerated and the risk of contamination is reduced.

Ordering information – Membrane cap

| Description | Packaging unit/bag/case | Order no. |
|--|-------------------------|-----------|
| Membrane cap for screw cap micro tubes | 500/2,000 | 65.3716 |



Attached screw caps

SARSTEDT has developed the attached screw cap for reliable allocation between the screw cap and the screw cap micro tube. This is simply hooked between the knurling and thread and can be combined with every type of tube.

Ordering information – Attached screw caps

| Description | Packaging unit/bag/case | Order no. |
|---|-------------------------|-----------|
| Attached screw caps for screw cap micro tubes | 500/5,000 | 65.712 |



Coding plates for attached screw caps

The fast allocation and clear identification of reagents and samples is of central importance in laboratory work. Thanks to the use of coding plates in eight different colours, which are simply pressed into the retaining loop cap, samples can be coded quickly and flexibly and can be identified more easily. They can be combined with both the pre-installed and the separately available retaining loop cap.

Ordering information – Coding plates

| Colour | | Packaging unit/bag/case | Order no. |
|---------|-------------------------------------|-------------------------|------------|
| natural | <input checked="" type="checkbox"/> | 500/5,000 | 65.713 |
| red | <input type="checkbox"/> | 500/5,000 | 65.713.002 |
| yellow | <input type="checkbox"/> | 500/5,000 | 65.713.004 |
| green | <input type="checkbox"/> | 500/5,000 | 65.713.005 |
| blue | <input type="checkbox"/> | 500/5,000 | 65.713.006 |
| violet | <input type="checkbox"/> | 500/5,000 | 65.713.007 |
| white | <input type="checkbox"/> | 500/5,000 | 65.713.009 |
| black | <input type="checkbox"/> | 500/5,000 | 65.713.010 |



Labelling

For your individual sample processing and labelling, screw cap micro tubes can also be provided with a label in the factory on request. In addition to individual, multi-coloured printing, 1D and 2D bar codes can also be applied. Various labels and printing inks are available for different storage and processing conditions.



Screw cap micro tubes according to your requests

In order to be able to provide our customers with the best products for their applications, SARSTEDT produces over 3000 different custom-made items per year. In this individual production, special product features such as printing type, screw cap colour, pack size, degree of purity or additional characteristics are adapted to your requirements. We would be glad to provide you with a quotation for an item that exactly meets your requirements. Simply speak to our product advisers, contact our local sales office or use the contact form on our website www.sarstedt.com.



Sterile special packaging

Screw cap micro tubes in sterile special packaging

Clean and sterile rooms, test kits or highly sensitive analyses require particularly pure, safe and aseptic handling of the materials used. For such demanding applications, SARSTEDT offers screw cap micro tubes and caps in a special sterile double-bag packaging. In this case, each bag is packaged in a second bag, so that after the removal of the outer bag, a completely sterile bag package is provided.

- Screw cap micro tubes and screw caps in double bags – a safe system solution for a wide range of applications
- Without screw cap – ideal for automated filling
- Caps in 10 colours – easy and individual identification

Ordering information – Screw cap micro tubes, double bagged

| Volume | Skirted | Knurling | Packaging unit/double bag/case | Order no. |
|--------|---------|----------|--------------------------------|------------|
| 0.5 ml | ✓ | ✓ | 500/2,500 | 72.730.711 |
| 1.5 ml | | ✓ | 500/2,500 | 72.607.772 |
| 1.5 ml | | | 500/2,500 | 72.687.772 |
| 2.0 ml | ✓ | | 500/2,500 | 72.664.711 |
| 2.0 ml | ✓ | ✓ | 500/2,500 | 72.609.711 |

Ordering information – Separate screw caps, double bagged

| Order no. | Colour | | Order no. | Colour | Packaging unit/double bag/case |
|------------|---------|---|------------|--------|--------------------------------|
| 65.716.725 | natural | ☒ | 65.716.720 | yellow | 500/5,000 |
| 65.716.721 | red | ■ | 65.716.723 | blue | 500/5,000 |
| 65.716.726 | green | ■ | 65.716.727 | orange | 500/5,000 |
| 65.716.728 | black | ■ | 65.716.729 | brown | 500/5,000 |
| 65.716.755 | violet | ■ | 65.716.757 | white | 500/5,000 |



Racks

Special racks for screw cap micro tubes

The special knurling of the SARSTEDT screw cap micro tubes in combination with the special rack made of break-proof, clear and resistant polycarbonate allows for one-handed closing and opening. It provides a secure hold without the need to fix the vessel and is therefore particularly suitable for handling substances with which contact should be avoided as far as possible, such as radioactive, sensitive or infectious reagents or samples. For easy cleaning, the rack can be dismantled and easily autoclaved.



Ordering information – Rack with knurling

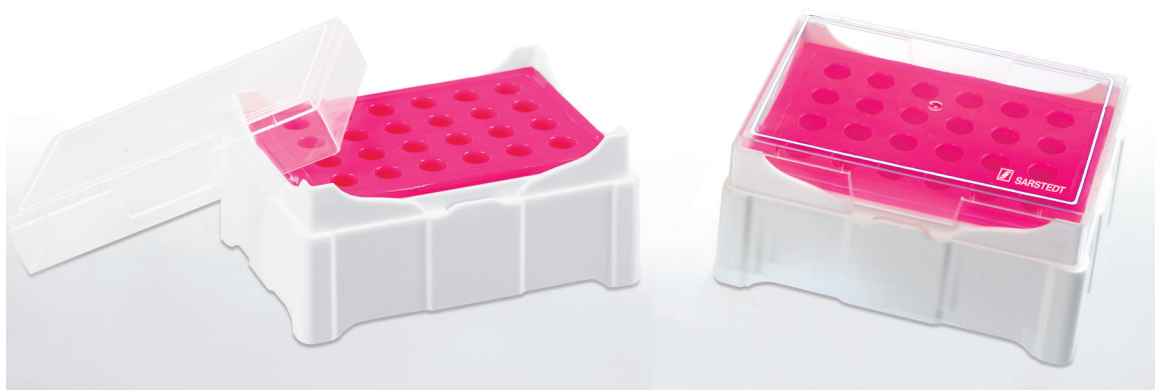
| Capacity / format | Length | Width | Height | Order no. |
|-------------------|--------|-------|--------|------------|
| 18 / 3 x 6 | 137 | 70 | 40 | 93.894 |
| 20 / 2 x 10 | 257 | 62 | 40 | 93.848.100 |
| 48 / 4 x 12 | 257 | 90 | 40 | 93.1428 |

IsoFreeze® Rack for 1.5 and 2.0 ml screw cap micro tubes

Many sample preparations require consistent and reliable sample cooling. For temperature-sensitive applications, such as the analysis of enzymes, PCRs or cell-based assays, but also for the careful thawing of samples and the stopping of reactions, SARSTEDT offers the IsoFreeze® Rack, a pipetting and storage station with reliable temperature control. After freezing, the rack keeps the sample temperature at 4°C for up to 3.5 hours with the lid in place. If the IsoFreeze® Rack is heated above 7°C, the colour noticeably changes from purple to pink. An additional advantage of the IsoFreeze® Rack is a minimised contamination risk, since the samples no longer have to be stored on ice.

Ordering information – IsoFreeze® Rack for 1.5 and 2.0 ml screw cap micro tubes and micro tubes

| Capacity / format | Length | Width | Height | Packaging/item | Order no. |
|-------------------|--------|-------|--------|----------------|-----------|
| 24 / 4 x 6 | 146 | 105 | 70 | 1/case | 95.983 |



Storage boxes

Plastic storage boxes

For the convenient storage of screw cap micro tubes and reaction vessels with a volume of 1.5 ml and 2.0 ml, SARSTEDT offers high quality polypropylene storage boxes which are suitable for long-term storage at down to -90°C.

Advantages of plastic storage boxes:

- Hinged or slip-on lids – suitable handling for all types of storage
- Alphanumeric marking in the box – facilitated sample identification
- Autoclavable – simple hygienic cleaning (121°C, 20 min.)
- Cold resistant – reliable storage at down to -90°C
- Six colours – quick identification of the desired storage box

Slip-on lid boxes

- dimensions: 130 mm x 130 mm x 45 mm (L x W x H)
- 81 storage spaces
- grid size 9 x 9

Hinged-lid boxes

- dimensions: 150 mm x 140 mm x 55 mm (L x W x H)
- 100 storage spaces
- grid size 10 x 10

Ordering information – Plastic storage boxes

| Colour | | Slip-on lid | Hinged lid | Packaging unit/bag/case |
|-------------|---|-------------|------------|-------------------------|
| transparent | ☒ | 93.876 | 93.877 | 5/20 |
| pink | ■ | 93.876.281 | 93.877.210 | 5/20 |
| orange | ■ | 93.876.381 | 93.877.310 | 5/20 |
| yellow | ■ | 93.876.481 | 93.877.410 | 5/20 |
| green | ■ | 93.876.581 | 93.877.510 | 5/20 |
| blue | ■ | 93.876.681 | 93.877.610 | 5/20 |



Cardboard storage boxes

SARSTEDT case storage boxes enable the safe and light-protected storage of screw cap micro tubes of all sizes. Their grid inserts with storage space for 100 or 81 vessels and the large inscribable lid allow for neat organisation of the samples. Storage at -80°C is easily possible, even over a long period, due to the resistance of the moisture-repellent, sealed, stable and cold-resistant case material.

Ordering information – Case storage boxes

| Capacity / format | Suitable for | Length | Width | Height | Order no. |
|-------------------|--------------|--------|-------|--------|-----------|
| 100 / 10 x 10 | 0.5 ml | 135 | 135 | 34 | 95.64.923 |
| 100 / 10 x 10 | 1.5/2.0 ml | 135 | 135 | 45 | 95.64.997 |
| 81 / 9 x 9 | 1.5/2.0 ml | 135 | 135 | 45 | 95.64.981 |

Polystyrene containers

Due to their insulating properties, polystyrene containers are particularly suitable for storing temperature-sensitive reagents and samples. The small container in particular, with a storage capacity of 20 screw cap micro tubes, can also be used as a practical rack on the laboratory bench.

Ordering information – Polystyrene container for 1.5 ml and 2.0 ml screw cap micro tubes and micro tubes

| Capacity / format | Lid | Length | Width | Height | Bestell-Nr. |
|-------------------|---------|--------|-------|--------|-------------|
| 100 / 5 x 20 | without | 390 | 80 | 50 | 95.1439 |
| 100 / 5 x 20 | ✓ | 340 | 100 | 65 | 95.64.249 |
| 20 / 5 x 4 | ✓ | 100 | 85 | 65 | 95.64.253 |



If you have any questions,
we'll be happy to help!

Visit our website: www.sarstedt.co

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