



30 YEARS OF EXPERIENCE  
IN TRACEABLE SAMPLE  
STORAGE

CERTIFIED CLASS 7 CLEAN ROOM  
INJECTION MOLDING  
AND ASSEMBLY

PRODUCTION IN  
THE NETHERLANDS AND  
THE UNITED STATES

# CAPS FOR SAMPLE STORAGE TUBES

Screw Caps & Push Caps

## SCREW CAPS FOR TUBES WITH EXTERNAL THREAD

The Micronic Screw Caps for tubes with external thread have a triple start thread for the most optimal sealing quality, ensuring long-term sample preservation and storage at ultra-low temperatures. To prevent the Screw Cap from overturning - manually or mechanically - the screw cap is designed with a unique lock when sealed (no cap or tube exhaustion). For better handling, the screw cap also has an outside grip.

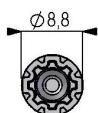
The Screw Caps for externally threaded tubes in 96-well format are compatible with Micronic sample storage tubes in the volumes 0.30ml, 0.75ml, 1.40ml and 2.00ml. The Screw Caps for externally threaded tubes in 48-well format are compatible with the 1.00ml tubes. The Screw Caps for externally threaded tubes in 24-well format are compatible with the 3.50ml tubes. The Micronic Screw Caps for tubes with external thread are available in 6 different colors, providing for visual color identification. Color provides a visual clue that works faster than text alone.

Micronic offers Screw Caps in an automation friendly Cap Carrier. The Screw Cap Carrier is fully compatible with the automated Screw Cap Recappers also offered by Micronic.



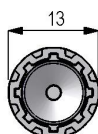
### Screw Caps 96-well format

For all Micronic Screw Cap Tubes  
(external thread)



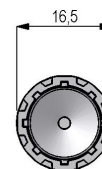
### Screw Caps 48-well format

For all Micronic Screw Cap Tubes  
(external thread)



### Screw Caps 24-well format

For all Micronic Screw Cap Tubes  
(external thread)



# CAPS FOR SAMPLE STORAGE TUBES

## SCREW CAPS & PUSH CAPS

### SCREW CAPS FOR TUBES WITH INTERNAL THREAD

The Micronic Screw Caps for tubes with internal thread provide a secure closure for long-term sample storage at ultra-low temperatures or a safe sealing during the transportation of your samples. The caps feature a high quality Silicon O-ring around the base to allow for the tightest seal possible.

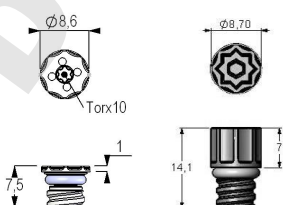
The Screw Caps for internally threaded tubes in 96-well format are available with a standard profile or a low profile (resulting in freezer space savings up to 33%) and compatible with Micronic sample storage tubes in the volumes 0.50ml, 0.75ml, 1.10ml, 1.40ml and 2.00ml. The Screw Caps for internally threaded tubes in 48-well format are compatible with the 4.00ml tubes and the Screw Caps for internally threaded tubes in 24-well format are compatible with the 6.00ml tubes. The Micronic Screw Caps for tubes with internal thread are available in 12 different colors, providing for visual color identification.

For an easy and fast application or removal of Screw Caps, Micronic offers a range of DeCappers. The manual Screw Cap DeCappers can apply or remove a single cap. The automated Screw Cap Recappers can apply or remove 8 or 96 caps at once.



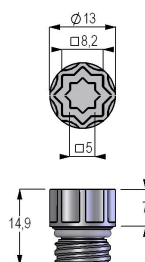
#### Screw Caps (Low Profile) 96-well format

For all Micronic Screw Cap Tubes  
(internal thread)



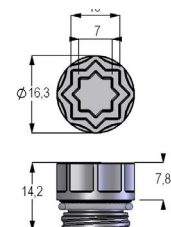
#### Screw Caps 48-well format

For all Micronic Screw Cap Tubes  
(internal thread)



#### Screw Caps 24-well format

For all Micronic Screw Cap Tubes  
(internal thread)





## PUSH CAPS FOR TUBES WITH INTERNAL THREAD

The Micronic TPE Push Caps for tubes in 96-well format are compatible with the 0.50ml, 0.75ml, 1.10ml, 1.40ml, 2.00ml, and 2.50ml tubes (internal thread) from Micronic. Several TPE cap formats are available: the Capcluster-96 which leaves each tube individually capped, the Capmat-96 holds 96 caps in a fixed foil in which the tubes are sealed together, and the Capband-8 or -12 comes in a mat format with tear off lines to obtain cap strips. The full TPE cap range is available in Natural and 12 different colors.

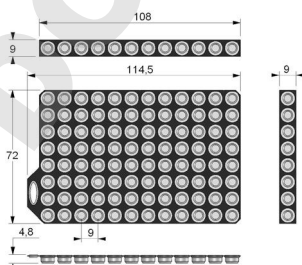
Micronic TPE Lyo Caps-96 are specially developed for the lyophilisation process as the vents in the caps allow water vapor to escape from the tubes. The TPE Lyo Caps are compatible with all 96-well format tubes (internal thread) and available in a Capcluster-96 format.

The EVA Push Caps from Micronic are a cost effective way to securely close sample storage tubes. The EVA Push Caps are compatible with 1.40ml round bottom internally threaded tubes and available in Capmat-96, Capband-8 and break-off Capband-8 (transparent).



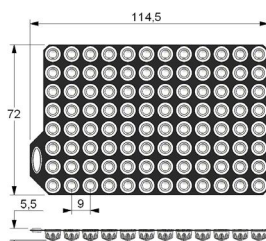
### TPE Push Caps 96-well format

For all Micronic Screw Cap and Push Cap Tubes (internal thread)



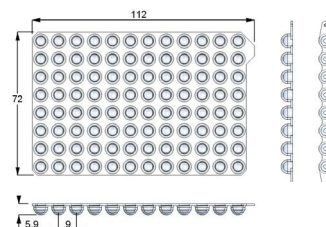
### TPE Lyo Caps 96-well format

For all Micronic Screw Cap and Push Cap Tubes (internal thread)



### EVA Push Caps 96-well format

For Micronic Push Cap Standard Tubes (internal thread)



# SUPERIOR CAP FEATURES

## SCREW CAPS

All Screw Cap types are manufactured from the highest purity Polypropylene, RNase/DNase and pyrogen free, automation friendly and have a working range of: Vapor phase LN<sup>2</sup> to +100°C

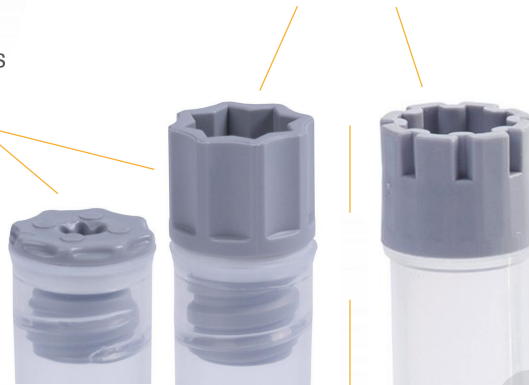
High quality Silicon O-ring allows for the tightest seal possible for tubes with **internal thread**

Triple start thread allows for the tightest seal possible for tubes with **external thread**

Available in 12 colors



Available in 6 colors



## PUSH CAPS

TPE Push Caps for tubes with **internal thread**

Working range:  
-80°C to +80°C

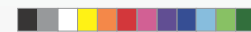
Multi-pierceable without losing sealing integrity

Available with split septum to pierce with a pipette tip

Manufactured from medical approved material (Natural)

RNase / DNase and Pyrogen free

Available in Natural + 12 colors



## OPTIONAL SERVICES / FEATURES



### Pre-capped on Micronic Tubes

All Micronic cap types are available pre-capped on Micronic Tubes. Micronic Screw Cap Tubes can be sealed with either a Screw Cap or Push Cap. Micronic Push Cap Tubes can be sealed with a Push Cap.

### Sterilization by Gamma Irradiation

Most of the Micronic products are sterilized by gamma irradiation (15.0 kGy). Sterilization by gamma irradiation can ensure a SAL of 10<sup>-6</sup>: a one millionth probability of microbial survival. Irradiation itself cannot guarantee that the product is free from any detectable RNases, DNases or pyrogens. Class 7 clean room production is therefore an essential requirement.

**STERILE**

### Sterilization by EtO Treatment

Using a novel Ethylene Oxide Treatment process - Micronic's labware is independently certified to be absolutely DNA-free and therefore provides the perfect medium for long-term, high integrity storage of forensic samples. Micronic is offering the DNA-free products in a special Tyvek packaging.



# AVAILABLE TECH NOTES

## CAP COLOR CODING

During the collection, processing and storage of samples, sample traceability is crucial. While most laboratories use 1D barcodes and 2D codes on sample tubes to ensure traceability of samples, cap color inspection will further promote the tube identification process.

Cap color coding in laboratories is particularly useful to distinguish between different types of research purposes. Color provides a visual clue that works faster than text alone. By adding cap color coding next to 1D barcodes and 2D codes, users can speed up sample storage and retrieval time, eliminate human errors, and reduce the risk of lost samples.

To ensure that aliquots, which are transferred from sample collection tubes (vacuum tubes) into smaller sample storage tubes, can still be identified by cap color inspection, Micronic offers a standard cap color coding solution for 96-, 48- and 24-format sample storage tubes. The solution can be found in the Tech Note “Cap Color Coding”.

## CAP SEALING PERFORMANCE

Sealing integrity is highly important to preserve samples against contamination, evaporation, and integrity loss during short term and long term storage.

Micronic regularly conducts research on its cap sealing properties compared to other brands. This way, Micronic is able to offer the highest quality products in the market. In order to compare the closure of Micronic Screw Caps and Push Caps related to other brands, several evaporation studies were conducted.

The Tech Note about “Cap Sealing Performance” demonstrates Micronic’s superior cap and tube combination quality compared to other brands in the market by showing the results of the conducted evaporation tests.



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