### eppendorf



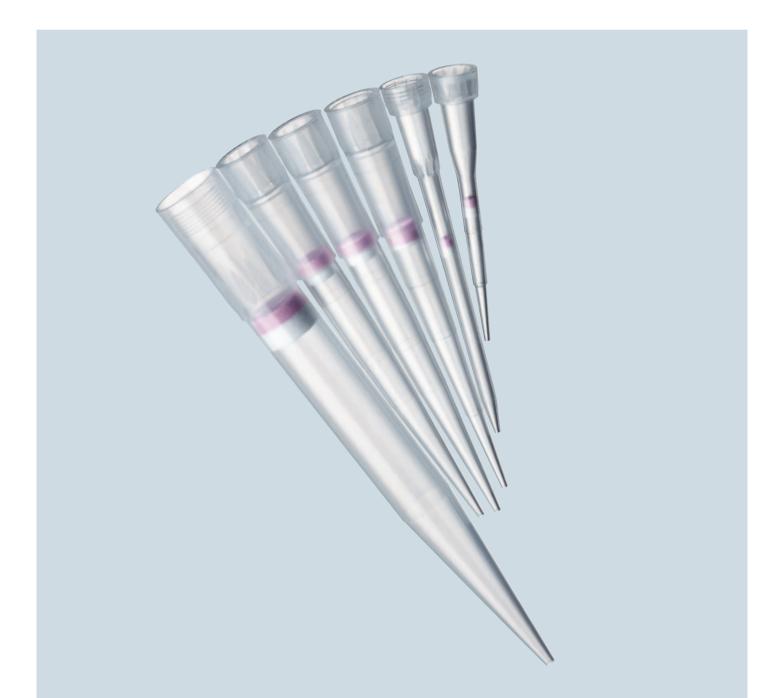
# Don't Panic

Your pipette and sample are safe with ep Dualfilter T.I.P.S.<sup>®</sup> and ep Dualfilter T.I.P.S.<sup>®</sup> SealMax

### Stay Relaxed When Using ep Dualfilter T.I.P.S.<sup>®</sup> SealMax

Eppendorf ep Dualfilter T.I.P.S. were the first tips with a two-phase filter for ultimate protection against aerosols and biomolecules. Building on the technology present in the first Dualfilter, Eppendorf expands its current ep Dualfilter T.I.P.S. portfolio with a self sealing tip, the new ep Dualfilter T.I.P.S. SealMax with liquid blocking technology is recommended for when you need additional protection against over pipetting. ep Dualfilter T.I.P.S. and ep Dualfilter T.I.P.S. SealMax are manufactured to the highest quality standards from pure, non-recycled materials under cleanroom conditions without the use of interfering slip agents, biocides or plasticizers.

Ideally suited for methods where high sensitivity and reproducibility are essential, ep Dualfilter T.I.P.S. and ep Dualfilter T.I.P.S. SealMax are especially recommended for applications such as PCR and microbiology where preserving sample integrity and preventing cross contamination are critical.



### Aerosols Don't Stand a Chance

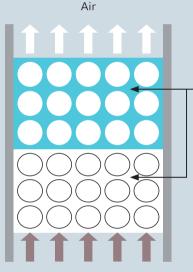
Eppendorf ep Dualfilter T.I.P.S. were the first tips with a two-phase filter for aerosol contamination protection. The unmistakable blue and white filter layers are made of flexible, hydrophobic material designed to fit perfectly in the tip cone and retain nearly 100 % of all aerosols\* and biomolecules. The unique filtering effect is achieved using various, well-defined pore sizes in the two filter layers. The hydrophobic white layer additionally protects against splashes and droplets.

Both filters, ep Dualfilter T.I.P.S. and ep Dualfilter T.I.P.S. SealMax, are made of Polyethylene (PE) and have comparable pore size structure. In a filter efficiency test, based on the standard EN 1822 and completed by a certified institute showed a minimum particle collection efficiency of 99.5 % with NaCI aerosol particles sizes of 0.05–0.5  $\mu$ m.

\* Aerosol: Aerosol particle and the air or dispersion of solid or liquid particles surrounding it in a gas, usually air.

ep Dualfilter T.I.P.S.

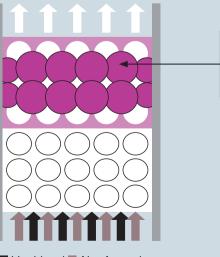
ep Dualfilter T.I.P.S. SealMax



Air+Aerosols+Biomolecules

The blue and white filter layers of the air permeable Dualfilter retain aerosols and biomolecules reliably.

Air only



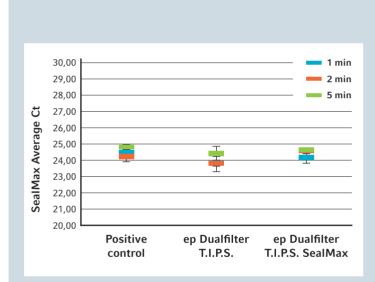
The violet filter layer of the new Dualfilter SealMax seals: No liquid passes through the filter. Both filter layers violet and white—retain aerosols and biomolecules reliably.

Liquid and Air+Aerosols+ Biomolecules

## Free of PCR Inhibiting Additives

### No PCR inhibition even if samples make contact with Dualfilters

The polymerase chain reaction is a common application in molecular biology research. Filter tips are well suited for the preparation of these types of experiments. However, it can not be excluded that the filter material may come into contact with the PCR sample, which can negatively affect the efficiency of classic PCR and quantitative real-time PCR. Eppendorf Dualfilters of ep Dualfilter T.I.P.S. and ep Dualfilter T.I.P.S. SealMax practically have no effect on PCR reactions and therefore are particularly well suited for preparing PCR experiments—both classic PCR and real-time PCR.



Sample water was allowed to come into contact with the Dualfilter (by over-pipetting) for 1 min, 2 min and 5 min respectively. The sample liquid was then recovered from the tip and used as water source for preparing real-time PCR reactions. The average Ct values of ep Dualfilter T.I.P.S. and ep Dualfilter T.I.P.S. SealMax were comparable to that of the positive control (using water without contact to Dualfilter) having a difference within the range of  $\pm 1$  cycle, thus showing the absence of PCR inhibition inhibiting effects of the filter tips.



## Safely Sealed With ep Dualfilter T.I.P.S.® SealMax

Eppendorf's new ep Dualfilter T.I.P.S. SealMax filter tips provide comprehensive protection against contamination of your pipette and sample. They combine the same high level of aerosol and biomolecule protection as ep Dualfilter T.I.P.S. with the reliable capability of sealing against liquid penetration upon contact. When it comes to an accidental over-pipetting situation, the new violet layer of ep Dualfilter T.I.P.S. SealMax becomes a reliable barrier against sample liquid—no liquid will pass through the filter! Your pipette is safe at all times! Additionally nearly 100 % of aerosols and biomolecules are retained while the hydrophobic white layer protects against splashes and droplets.

#### Features of ep Dualfilter T.I.P.S. SealMax

- > Reliable blocking of liquid
- > No PCR-inhibition
- > Maximum protection against aerosols and biomolecules for pipette and sample
- > PCR clean, Sterile (sterile, pyrogen-free)
- > Lot specific purity certificates



#### Violet Layer

Forms a highly-effective barrier that blocks liquids and binds aerosols

#### White Layer

Designed to be hydrophobic to repel drops, splashes and bind aerosols

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#### Ordering information

Product	Int. Order no.	North America Order no.
ep Dualfilter T.I.P.S. <sup>®</sup> SealMax, Racks, PCR clean /Sterile, 10 × 96 tips		
■ 0.1–10 μL S, 34 mm	0030 077.806	0030077806
0.5–20 μL L, 46 mm	0030 077.814	0030077814
<mark>=</mark> 2–100 μL, 53 mm	0030 077.822	0030077822
<mark>=</mark> 2–200 μL, 55 mm	0030 077.830	0030077830
<mark>=</mark> 20–300 μL, 55 mm	0030 077.849	0030077849
■ 50–1,000 μL, 76 mm	0030 077.857	0030077857
ep Dualfilter T.I.P.S.®, Racks, PCR clean /Sterile, 10 x 96 tips		
■ 0.1–10 μL S, 34 mm	0030 077.504	022491202
🔲 0.1–10 μL M, 40 mm	0030 077.512	022491211
0.5–20 μL L, 46 mm	0030 077.520	022491229
<mark>2-20 μL, 53 mm</mark>	0030 077.539	022491270
_ 2–100 μL, 53 mm	0030 077.547	022491237
<mark>–</mark> 2–200 μL, 55 mm	0030 077.555	022491296
<mark>=</mark> 20–300 μL, 55 mm	0030 077.563	022491245
<b>Ξ</b> 50–1,000 μL, 76 mm	0030 077.571	022491253
ep Dualfilter T.I.P.S. <sup>®</sup> , Racks, PCR clean /Sterile, 5 x 48 tips		
■ 50–1,250 μL L, 103 mm	0030 077.750	022494002
■ 0.1–5 mL, 120 mm	0030 077.580	022491261
1–10 mL L, 243 mm, individually blistered, 50 pieces per package	0030 077.598	022491288



Eppendorf Research® plus Lightweight design with spring loaded nose cone, liquid class adjustment and 2 button operation.

#### Eppendorf Reference<sup>®</sup> 2

Lightweight design with volume lock to prevent accidental changes, spring loaded nose cone, liquid class adjustment and 1 button operation for users with high number of tip ejections.



#### Eppendorf Xplorer®/ Eppendorf Xplorer<sup>®</sup> plus Multifunction pipette with easy-

to-use selection dial and digital display for intuitive operation.

#### Your local distributor: www.eppendorf.com/contact

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#### www.eppendorf.com/consumables

Eppendorf<sup>®</sup>, the Eppendorf logo, Eppendorf Research<sup>®</sup>, Eppendorf Reference<sup>®</sup>, Eppendorf Xplorer<sup>®</sup> and ep Dualfilter T.I.P.S.<sup>®</sup> are registered trademarks of Eppendorf AG. All rights reserved, including graphics and images. Copyright<sup>®</sup> 2013 by Eppendorf AG. Order No. AQ30 312 020/GB2/15T/1213/CCHH/STEF · Carbon neutrally printed in Germany.