## **Eppendorf Consumables – it's Your sample**



# Stop aerosols!

Unique two-phase filter protection with ep Dualfilter T.I.P.S.®

# eppendorf

## Aerosols don't stand a chance!\*

### ep Dualfilter T.1.P.S.®

#### Two filter layers are better than one.

Eppendorf ep Dualfilter T.I.P.S. are the first filter tips with a two-phase filter for contamination protection. The unmistakable blue and white filter layers are made of flexible, hydrophobic material to fit perfectly in the tip cone and retain practically 100 % of all aerosols\* and bio-molecules (see p. 3). This unique filtering effect is achieved using various, well-defined pore sizes in the two filter layers.

The white layer that faces the sample retains drops, splashes and aerosols (see p. 3). The blue layer above it forms a highly-effective double barrier that reliably binds biomolecules.

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

The air flow rate through the filter is the same as with single-layer filters – it simply makes your rapid pipetting tasks much safer.

The ep Dualfilter T.I.P.S. hydrophobic filter surface also enables easier and complete recovery of samples.

#### **Product characteristics**

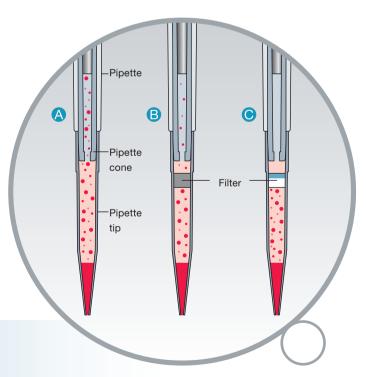
- Two filter layers provide dual protection
- Dual protection for pipette and sample
- Dual protection from aerosols and biomolecules
- Free of PCR inhibitor additives
- Patent-pending technology
- Sterile, Eppendorf PCR clean and pyrogen-free
- Batch certified

## Dual protection against contamination right from the start.

ep Dualfilter T.I.P.S. are manufactured to the highest possible quality from pure, non-recycled materials under cleanroom conditions. They are characterized by defined flow dynamics, low wettability and high thermal stability.

ep Dualfilter T.I.P.S. are sterilized by electron beams and certified pyrogen-free and PCR clean (free from human DNA, DNase, RNase and PCR-inhibiting substances).

Individual batch certification can be downloaded from **www.eppendorf.com** 



 Without a filter A, the pipette is exposed to contamination by samples and aerosols. Conventional single-layer filters B do not fully block particles and molecules. Only ep Dualfilter T.I.P.S provide reliable protection even against the finest impurities.

## Scientifically proven

## No filter protects better than ep Dualfilter T.1.P.S.®

Filter tips from different manufacturers were tested in a blind trial at the "Fraunhofer-Institut für Toxikologie und Experimentelle Medizin" (Fraunhofer Institute for Toxicology and Experimental Medicine – ITEM) in Hanover. Testing focused on the prevention of pipette cone contamination by aerosols. Filter effect with regard to salt aerosols and biomolecules (DNA fragments) was examined. Quantitative determination of DNA fragments was performed using real-time PCR.

The results indicate that ep Dualfilter T.I.P.S. filter tips are much better at protecting against aerosols than other commercially available filter tips.

With regard to particle permeability, ep Dualfilter T.I.P.S. filter tips are 55 to 677 times more effective than the filter tips tested from other manufacturers. ep Dualfilter T.I.P.S. filter tips were 21 to 600 times more effective when protection against DNA fragments was examined for the first time.

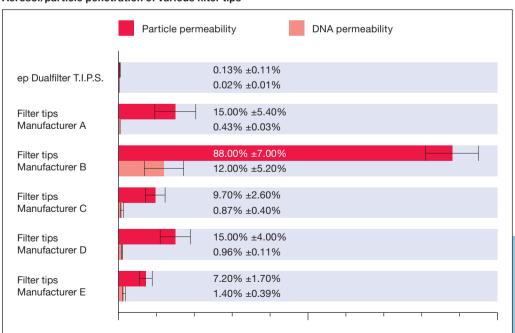


ITEM

## Fraunhofer Institut

Institut Toxikologie und Experimentelle Medizin

#### Aerosol/particle penetration of various filter tips



# Significantly better: ep Dualfilter T.I.P.S.®

#### **Order information**

Description	Quantity	Puritiy	Order no. international	Order no. North America
ep Dualfilter T.I.P.S. Racks				
0.1–10 μL S 0.1–10 μL M 0.5–20 μL L 2–20 μL 2–100 μL 2–200 μL 20–300 μL 50–1,000 μL	$10 \times 96 = 960 \text{ tips}$ $10 \times 96 = 960 \text{ tips}$	PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free	0030 077.504 0030 077.512 0030 077.520 0030 077.539 0030 077.547 0030 077.555 0030 077.563 0030 077.571	022491202 022491211 022491229 022491270 022491237 022491296 022491245 022491253
ep Dualfilter T.I.P.S. Racks				
50 μL-1,250 μL L 100-5,000 μL 1-10 mL L, individually blistered	$5 \times 96 = 480 \text{ tips}$ $5 \times 96 = 480 \text{ tips}$ 50  pieces per package	PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free	0030 077.750 0030 077.580 0030 077.598	022494002 022491261 022491288
ep Dualfilter T.I.P.S. LoRetention Racks				
0.1–10 μL S 0.5–20 μL L 2–100 μL 20–300 μL 50–1,000 μL	$10 \times 96 = 960 \text{ tips}$ $10 \times 96 = 960 \text{ tips}$	PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free PCR clean/sterile/pyrogen-free	0030 077.610 0030 077.628 0030 077.644 0030 077.636 0030 077.652	022493000 022493002 022493006 022493004 022493008

Technical specifications subject to change

For more information, visit www.eppendorf.com/dualfilter