# Rainin Aerosol-resistant Tips
## Prevent Aerosol Contamination

Rainin FinePoint aerosol-resistant tips incorporate individual hydrophobic filters to protect samples and pipetting instruments from contamination that can occur due to aerosol transfer. Use of these tips is especially important in critical DNA amplification and microbiological procedures where minute trace carry over can invalidate experimental results.
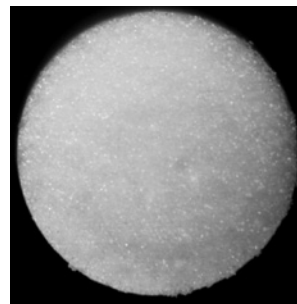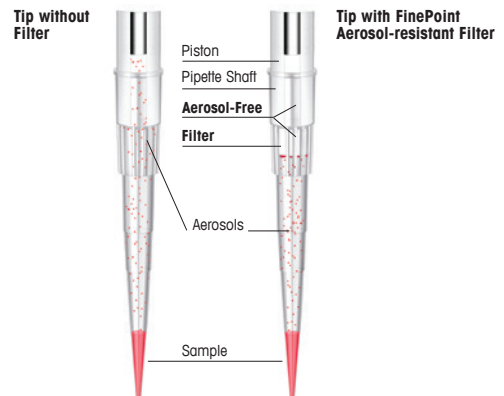
**Proven to eliminate aerosol contamination**
Rainin aerosol-resistant pipette tips with filters were tested by an independent testing laboratory and proven to prevent DNA aerosol contamination. (See Technical Report "Self-sealing filter tips − Possible inhibition of PCR reactions").

**Pure virgin polyethylene with no additives**
Rainin aerosol-resistant filters are made from pure virgin molded polyethylene. Machine-loaded, Rainin aerosol-resistant tips are completely untouched during manufacturing and packaging, and are certified free of RNase, DNase, DNA, and pyrogen contamination. All Rainin aerosol-resistant tips are presterilised by radiation after packaging as added protection for biological samples.

Rainin's stringently clean inhouse state-of-the-art tip-molding facility in California is ISO-9001-certified. The molded filters are an extremely strong, chemically inert matrix of pure virgin polyethylene, which does not flake or shed particles. Average pore size is 20 microns, which prevents aerosol passage but does not restrict air flow. No additives which could contaminate valuable sample are ever used in Rainin aerosol-resistant tips.



Tip without Filter

Tip with FinePoint Aerosol-resistant Filter

Piston
Pipette Shaft
**Aerosol-Free Filter**
Aerosols
Sample



**Rainin aerosol-resistant filter.**
Pure virgin molded polyethylene filter matrix, won't flake, shed or crumble.

Enlarged photograph. Average pore size 20 microns.
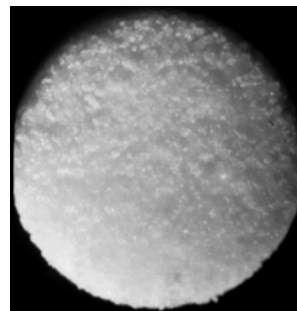


**Self-sealing filter from another manufacturer.**
Contain an additive of cellulose gum particles which are soft and can crumble. Can flake or shed particles.

Enlarged photograph. Average pore size 45 microns.

**METTLER TOLEDO**

**Self-sealing filter tips contain additives which may cause sample contamination**

Self-sealing filters in tips from another manufacturer consist of a polyethylene matrix embedded with cellulose gum particles, intended to self-seal on contact with liquid.

The cellulose gum additive in self-sealing filters is not chemically bonded to the filter matrix; the filter is soft and friable and can flake or shed particles.

The original photographs of the inside of a self-sealing tip and of a new box of self-sealing tips clearly show particles inside the tip and on the floor of the box.

Using self-sealing filter tips may contaminate your sample and distort or invalidate your experimental results, with the potential of inhibiting PCR reactions.

**Rainin aerosol-resistant tips proven to prevent aerosol transfer without the risk of particulate contamination**

For critical DNA or PCR work, use Rainin aerosol-resistant tips for peace of mind. Rainin aerosol-resistant tips are proven to prevent aerosol contamination and contain no cellulose gum or other additives which can contaminate your sample.

The filter in Rainin aerosol-resistant tips is an extremely strong, coherent matrix which will not crumble, flake, or shed particles.

| Aerosol-resistant Filter Tips | Rainin | Self-Sealing |
|---|---|---|
| Effective against aerosols | ✓ | ✓ |
| Free from additives | ✓ | |
| Sturdy filter matrix | ✓ | |
| Does not flake or shed particles | ✓ | |

**Are these particles in your sample?**
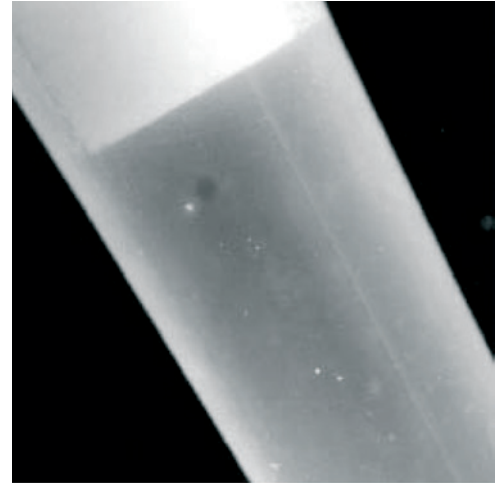


Original enlarged photo showing particles inside self-sealing tip from another manufacturer.
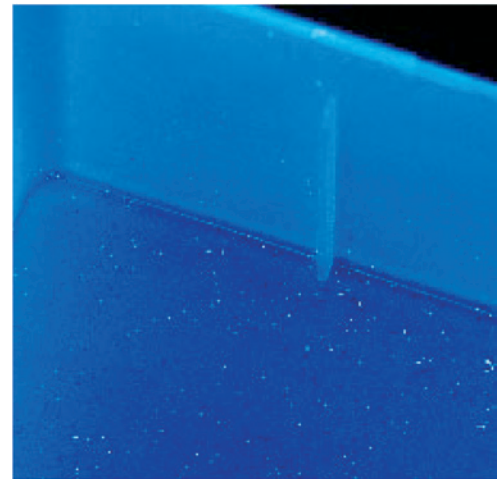


Original photo of inside of new box of self-sealing filter tips from another manufacturer, showing particulate matter shed from filters.

**www.mt.com/rainin**

For more information