

# TripleAir PTFE RadiCel P Filter

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The RadiCel P with PTFE is designed as an alternative to HEPA/ULPA filters using glass fibre media. It provides extremely high particulate filtration efficiencies, lower pressure drops and negligible off-gassing, and is highly resistant to corrosive environments.

### Overview

- PTFE membrane combines ultra-high efficiency with negligible pressure drop
- Energy saving up to 30%
- High resistance to corrosive environments (acids, alkalis & organic substances)
- Negligible off-gassing properties (Boron, sodium, potassium & silicon)
- Tougher media, more resistant to rough handling in transportation and installation
- Low profile—reducing space and weight
- UL900 certified



### Typical Applications

Semiconductor

Hard Disk drive

Pharmaceutical

Flat Panel Display

Microelectronics

Food & Beverage

## Clean Room Filtration and Lighting Technology

TripleAir Technology are suppliers of high quality HEPA and ULPA filtration, ceiling grid systems and luminaires for the clean room industry. We offer fully integrated ceiling solutions for projects and cleanroom facilities.

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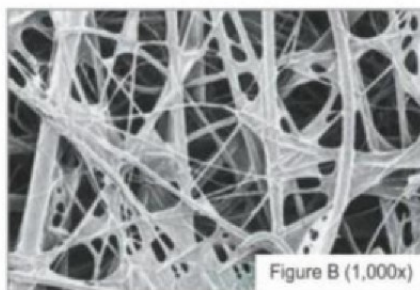
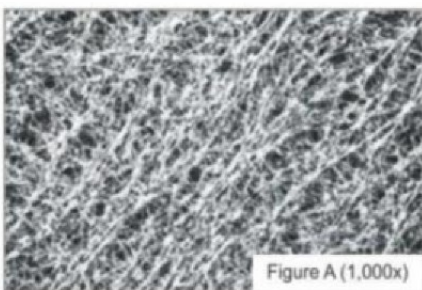
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## Perfect Filter Media

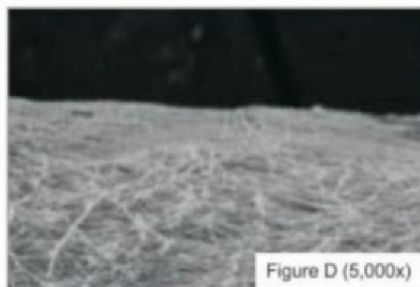
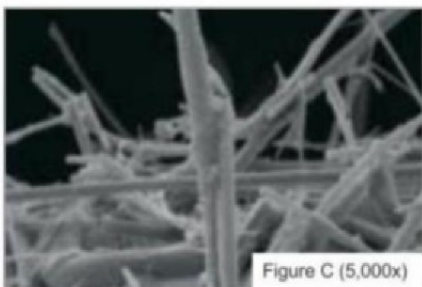
Compared with micro-fiberglass media, the ePTFE media provides superior benefits including inert chemical properties, more uniform fiber distribution, smaller fiber diameters and pore size, which reduces resistance with higher filtration performance to achieve substantial energy savings.

## Perfect Pleat Design

The ePTFE membrane pack is produced to assure precision in pleat spacing and height, thereby reducing "dead-spots" and promoting consistent and uniform air distribution throughout the filter. The pleat design allows the air to move throughout the entire depth of the filter, utilizing the full cleaning capability of the membrane.



Photographed at 1,000x magnification, these images illustrate the finer diameter and more consistent composition of ePTFE membrane media (Figure A), when compared with ULPA micro-fiberglass (Figure B).



Examining the structure under the microscope clearly shows the broken glass fibers at the pleat edge (Figure C) while the fold of the ePTFE media (Figure D) is intact.

## Chemical Advantages of ePTFE Media

**Negligible Off-gassing:** RadiCel P membrane has a smaller pore size and fibre diameter than micro-fiberglass. These characteristics significantly reduce the levels of off-gassing impurities typical to micro-fiberglass (which include boron, sodium, potassium, and silicon) to almost zero.

**High Corrosion Resistance:** ePTFE membrane has been proven to be resistant in highly corrosive environments including alkaline, acid, and organic substances. All of these environments can be found in semiconductor manufacturing processes.

**Superior Water Resistance:** Based on A-PLUS test lab results and customer testimonials, ePTFE media provides superior water resistance in comparison with micro-fiberglass and low boron micro-fiberglass media.

## Energy Conservation

ePTFE pleated pack resistance is a minimum of 30% lower than conventional micro-fiberglass media, a factor contributing to reducing fan energy consumption. The new pleating method using intermittent separators, allows greater substantially more open media area, optimizing pleat pack resistance.

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Visit our website to view our full range of HEPA and ULPA filters, safe change units, fan filter units, ceiling grid systems and cleanroom luminaires.

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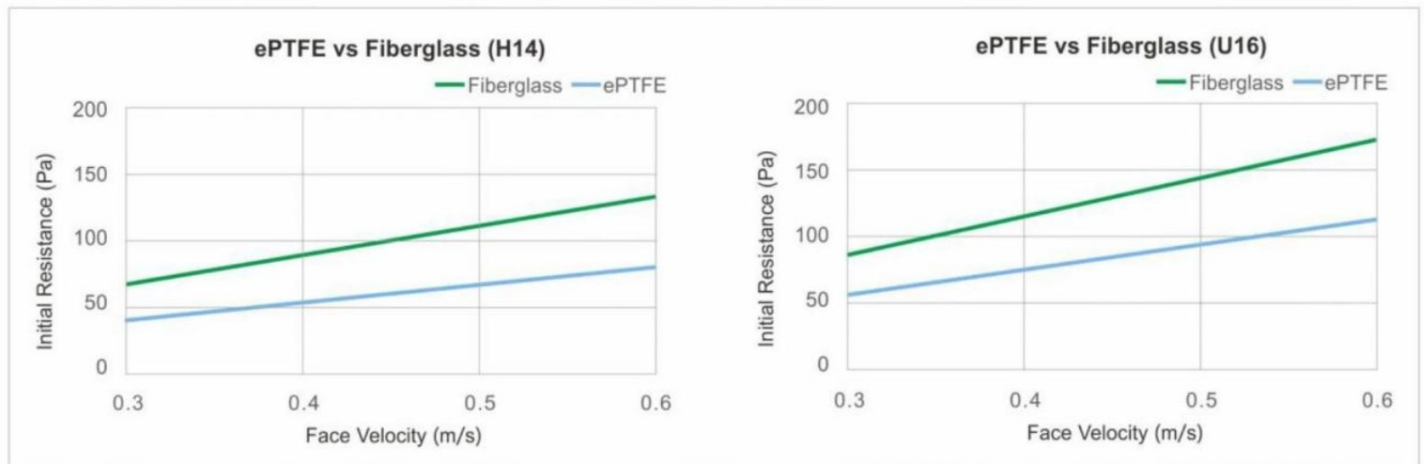
## Specifications

Filter depth	50/69/80/88mm
Efficiency	H13, H14, U15, U16, U17 (EN1822)
Media	PTFE
Frame materials	Anodized AL
Separator	Hotmelt
Sealant	PU
Faceguard	GI/AL/SUS
Gasket	EPDM
Special size available	Yes
Max operating temperature	131°F (55°C)

## Standard Sizes and Performance Parameters

Frame (Pleat) (mm)	Rated Initial Resistance (Pa)			
	H13	H14	U15	U16
50 (35)	50	65	85	95
69 (40)	45	60	80	85
80 (55)	30	40	60	65
KE88 (35)	50	65	85	95

## Initial Resistance vs Face Velocity (69 mm depth)



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