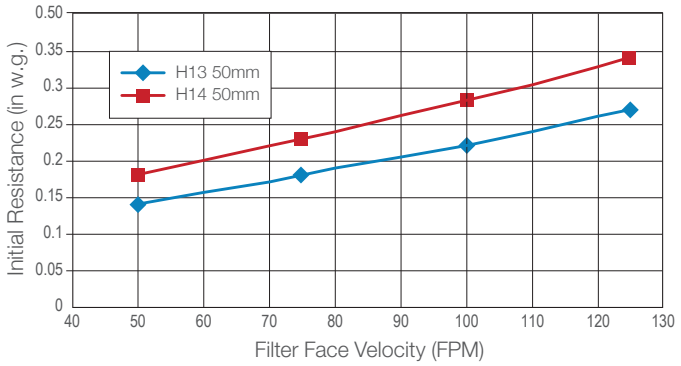
THE WORLD LEADER IN CLEAN AIR SOLUTIONS

MEGAcel® II

MINI-PLEAT HEPA FILTERS

MEGAcel® II eFRM H13/H14
Initial Resistance vs. Filter Face Velocity



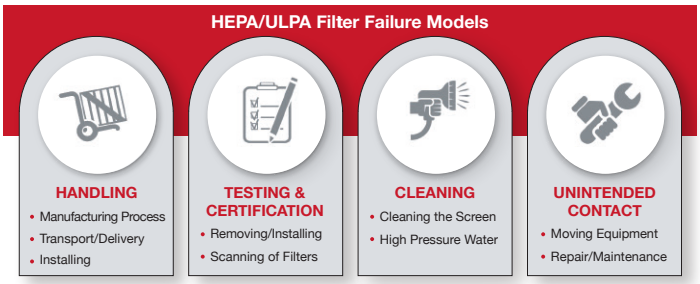
Filter Face Velocity (FPM)	50	75	100	125
H13 50mm (in w.g.)	0.14	0.18	0.22	0.27
H14 50mm (in w.g.)	0.18	0.23	0.28	0.34

Benefits

- Available in 99.99% @ 0.3 um/H13 and 99.995% @ MPPS/H14
- Oil Aerosol, Hydrocarbon and High-Humidity Compatible
- Compatible with Photometric Test Method
- Abrasion Resistance 1000X Greater Than Glass
- Designed for Ultra-High Particulate Loading

Evolution Meets Revolution

Expanded FluoroResin Media, or eFRM, is the next generation of membrane media technology, designed specifically for applications where oil-based test aerosols (i.e. PAO) are utilized or fine particulate (i.e. Hydrocarbons) are present. This patented HEPA filtration media provides superior mechanical performance at significantly lower energy cost while maintaining the most stringent filtration requirements in these demanding environments.

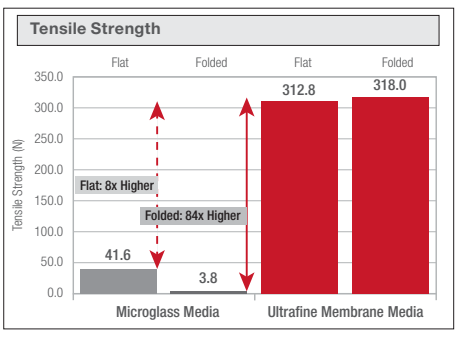


HEPA Filters typically fail due to some form of contact combined with the poor mechanical strength of the media.

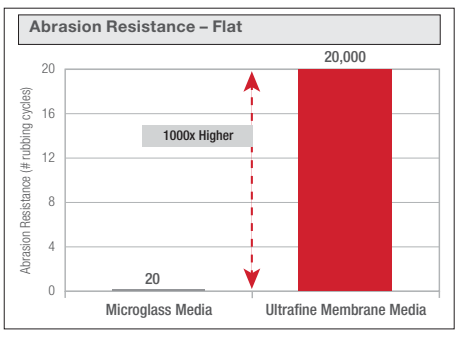
Media Resilience Comparison

AAF's HEPA/ULPA filters utilizing Daikin's ultra-fine fiber membrane media technology are the product of choice in the most demanding environments.

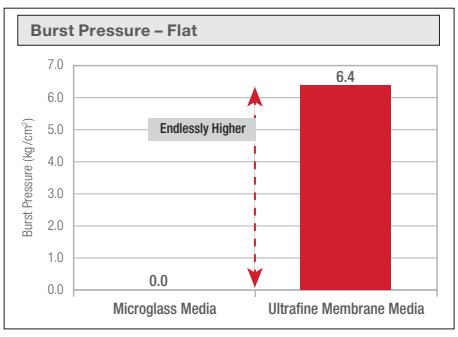
Wet laid glass fiber media is delicate and vulnerable to various levels of degradation, ranging from pinhole leaks to irreparable damage.



Results based on Test Standard DIN EN 29073-3.



Results based on Test Standard DIN EN 12947-2.



Results based on Test Standard DIN EN 13938-2.

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Submittal Options Configuration Nomenclature

E12A24E	B	85	K	2	F	1	S	A	0	A
(1)	(2)	(3)	(4)	(5)	(6a)	(6b)	(7)	(8)	(9)	(10)

(1) SIZE	(2) MEDIUM	(3) CELL CONSTRUCTION & CONFIGURATION	(4) MEDIUM PACK DEPTH	(5) BOND/ PATCHING	(6a) GASKET MATERIAL	(6b) GASKET LOCATION	(7) ACCEPTANCE LEVEL	(8) FACEGUARD MATERIAL	(9) FACEGUARD LOCATION	(10) CENTER DIVIDER

(1) Size:

E 12 A 24 E

- E – Designates Imperial Measurement
- 12 – Filter Height in Whole Numbers
- A – Filter Height in Additional Fractions of an Inch (see chart below)
- 24 – Filter Width in Whole Numbers
- E – Filter Width in Additional Fractions of an Inch (see chart below)

Fractional Notation for Imperial Sizes:

A = 0	B = 1/8	C = ¼	D = 3/8
E = ½	F = 5/8	G = ¾	H = 7/8
J = 1/16	K = 3/16	L = 5/16	M = 7/16
N = 9/16	P = 11/16	Q = 13/16	R = 15/16

Example: **E23D35H**
23 3/8 High x 35 7/8 Wide

(2) Media (eFRM PAO Compatible):
B – 99.99% @ 0.3 um/H13
C – 99.995% @ MPPS/H14

(3) Cell Construction:
85 – 'C' Channel (2-7/8 Depth, Fluid Seal)
87 – ¾" Knife-Edge (3-¼" Depth)
89 – 'C' Channel (2-¾" Depth)
99 – Special Configuration

(4) Pack Depth:
K – 50mm, Hotmelt Bead Separator

(5) Patching:
2 – PU Bond – Silicone Patching per IEST-RP-CC001
4 – PU Bond – Non-Silicone Patching per IEST-RP-CC001
6 – PU Bond – No Patching Allowed

(6a) Gasket/Gel Material:
B – Polyurethane Gel
F – Silicone Gel
P – None
T – Neoprene
Y – Silicone
Z – Special
*Gaskets are ¼" thick and ¾" wide.

(6b) Gasket/Gel Location:
0 – None
1 – Air Entering Side
2 – Air Leaving Side
3 – Both Faces
4 – Special
*85 Cell Construction requires gasket location of 1.

(7) Acceptance Level:
H – 99.99% Scan Tested
S – 99.99% @ 0.3µm, Cold PAO Hand Scan
D – 99.995% @ MPPS/H14

(8) Faceguard Material:
A – None
B – White Painted Exp Steel
C – Exp 304 SST
D – Perf 304 SST
E – Perf Anodized Alum
Z – Special

(9) Faceguard Location:
0 – None
1 – Air Entering Side
2 – Air Leaving Side
3 – Both Sides
9 – Special

(10) Center Divider:
A – None
B – Center Divider
C – Center Divider, 1 Test Port
D – Center Divider, 2 Test Ports
Z – Special

MEGAcel® II eFRM Specifications

1.0 General

1.1 Air Filters shall be HEPA grade air filters with eFRM (FlouroResin Media) technology, hotmelt bead separator, extruded anodized aluminum frame, urethane sealant, and either polydimethylsiloxane fluid seal or dry gasket seal.

1.2 Sizes shall be noted on drawings and/or other supporting materials.

2.0 Construction

2.1 Filter media shall be of continuously pleated eFRM, expanded FlouroResin Media; no glass allowed.

2.2 eFRM media shall be compatible with industry standard validation and testing methodologies using an acceptable oil aerosol agent (i.e. PAO).

2.3 The media pack shall be affixed permanently to the filter frame assembly by means of a polyurethane sealant.

2.4 The filter frame shall be of anodized extruded aluminum and shall be designed for use in Gasket Seal or Fluid Seal systems.

2.5 Gasket system filters shall be factory installed 1/4" thick by 3/4" wide, closed cell neoprene affixed to the sealing surface. Filter Frame sealing surface to have a flatness tolerance of +/- 1/32"

2.6 Fluid Seal system filters shall have:

2.6.1 A continuous trough around the perimeter of the filter with continuous, integral indication of acceptable fluid seal fill level. The fluid seal trough shall be filled at the factory.

2.6.2 Fluid seal material shall be characterized for all salient mechanical, physical, and chemical properties such as Hardness/Penetration, Tack, and Migration of free silicone.

2.6.3 Fluid seal material shall be characterized for chemical resistance to known industry accepted decontamination agents, cleaning agents, and filter testing reagents.

2.6.4 Fluid seal material shall be tested for chemical compatibility to all materials in contact during manufacturing including gloves, tools, mixing equipment, dispensing equipment, and packaging materials, as well as potential airborne contaminants & poisons.

2.6.5 Fluid seal material shall demonstrate resistance to accelerated life cycle testing.

2.6.6 Fluid Seal shall withstand knife edge insertion to partial depth without complete depth cutting or full length splitting.

3.0 Performance

3.1 The filter shall have a tested efficiency of (99.99% or 99.995% @ 0.3µm or 99.95% or 99.995% @ MPPS) when tested under the guidance of either IEST-RP-CC001 or EN1822.

3.2 Each Filter shall be tested for initial (clean) pressure drop at rated flow. Initial resistance not to exceed 0.25" w.c. at rated flow.

3.3 Each Filter shall be factory scanned in accordance with IEST-RP-CC034 or EN1822.

3.4 Filter shall be listed by Underwriters Laboratories as UL 900.

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