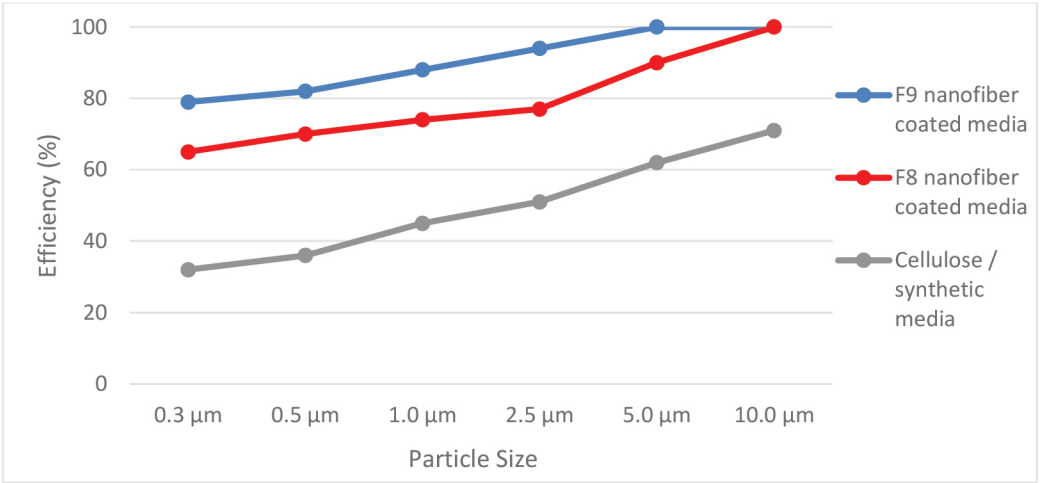
Electrospun nanofibers are suitable for air filtration due to their small pore size and high specific surface area. The average pore size of nanofiber membranes are much smaller than microfiber membranes which can capture dust particles on its surface and ultimately improves filtration efficiency. Nanofiber layers can be coated on a variety of filter substrates which have different applications in automotive, power plants and industrial air filters in various filter classes.

The following figure shows the efficiency and pressure drop of a common air filter and nanofiber coated air filter. As shown in the figure, FNM's air filter media which is coated by a layer of nanofiber has much higher efficiency than common (without nanofiber) air filter media, while the pressure drop of nanofiber coated air filter media is not increased significantly.



Comparison of efficiency between common air filter media and FNM's nanofiber coated air filter (F8 and F9).

A comparison between the performance of air filter nanofiber coated media by FNM Co. (F9 filter classes) and cellulose / synthetic media (blank substrate) has been done and the data are presented in the following table.

Performance of air filter nanofiber coated media (F8 and F9) and cellulose/ synthetic media (According to BS EN 779)							
Sample Name	**Efficiency (%)**						**Pressure Drop (Pa)**
	0.3 µm	**0.5 µm**	**1.0 µm**	**2.5 µm**	**5.0 µm**	**10.0 µm**	**@ 32 l/min**
Cellulose / Synthetic Media	32	36	45	51	62	71	65
FNM's Nanofiber Coated Media (F8)	65	70	74	77	90	100	81
FNM's Nanofiber Coated Media (F9)	79	82	88	94	100	100	99