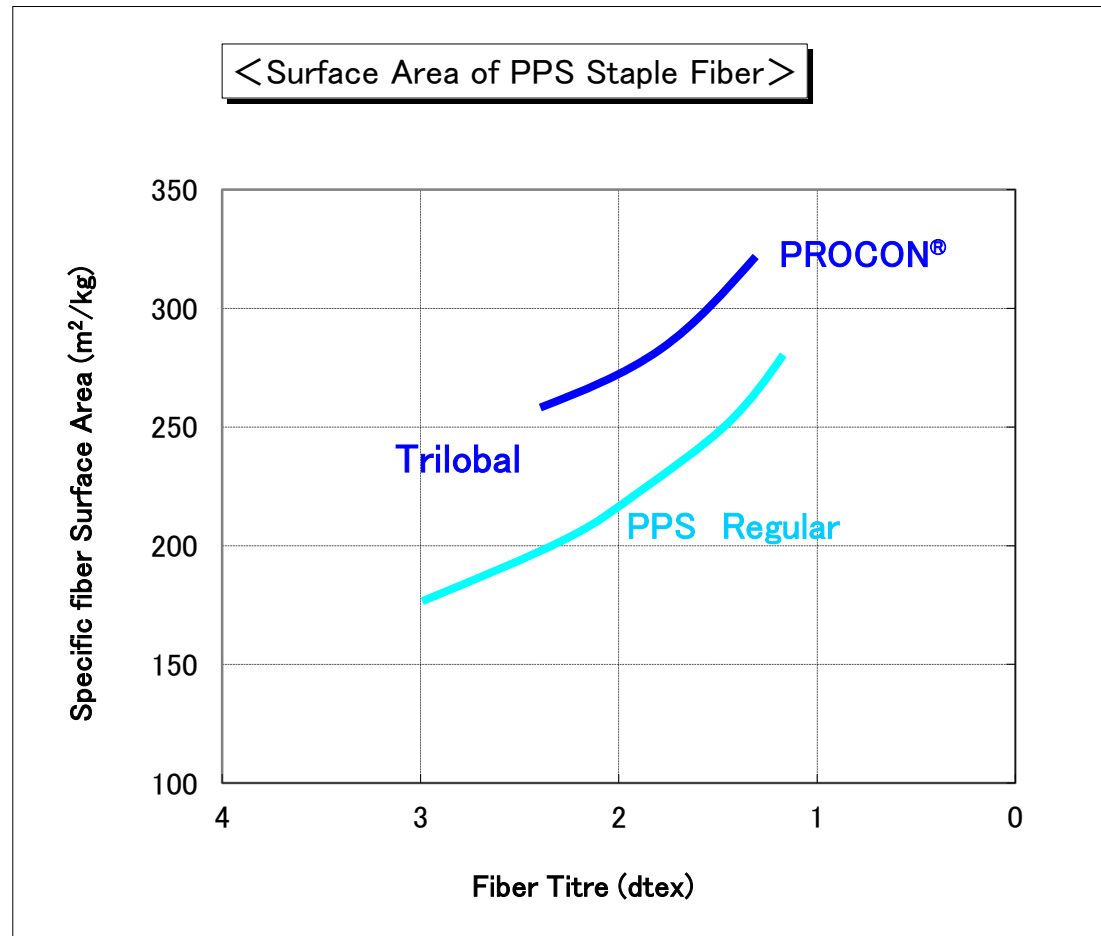


Trilobal Cross Section

Specific fiber surface area

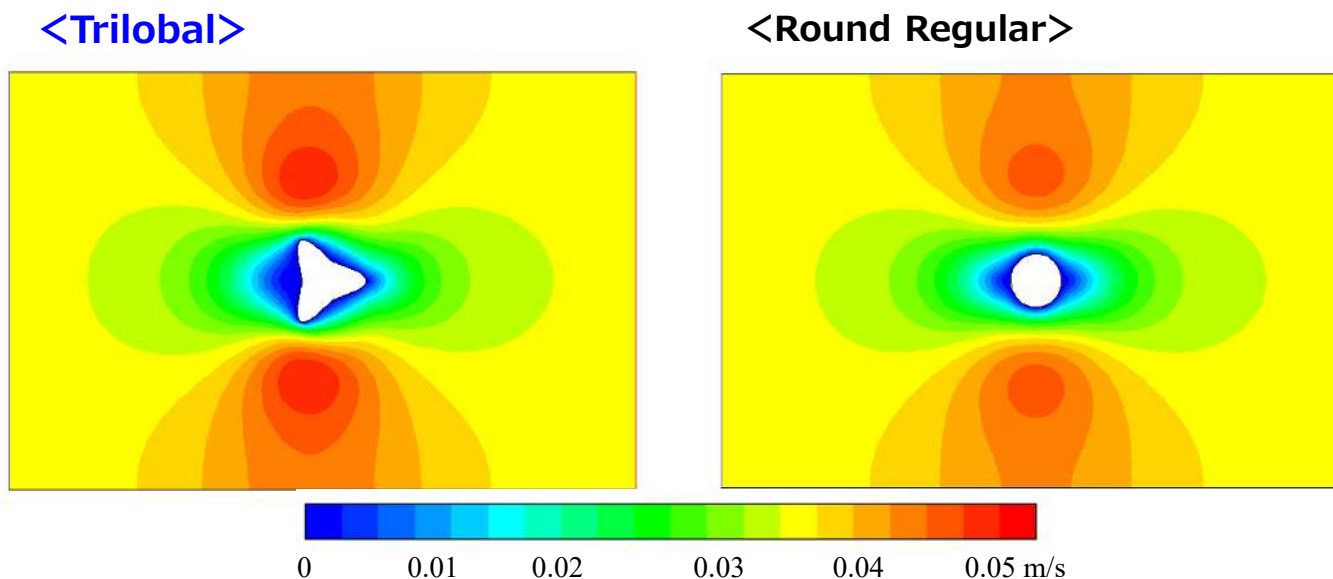
Trilobal cross section, the specific fiber surface area becomes very large.



Filtration Simulation

Velocity Distribution Simulation

You can see that the blue part of the Trilobal cross section (slower velocity) is clearly more than the round cross section.



<Flow velocity reduction area (blue) / Excluding area of fiber cross section>

Trilobal	Area(μm^2)	Round Regular	Area(μm^2)
1.7 dtex	431	1.0 dtex	232
		1.5 dtex	285
		2.2 dtex	333

* Analysis Method

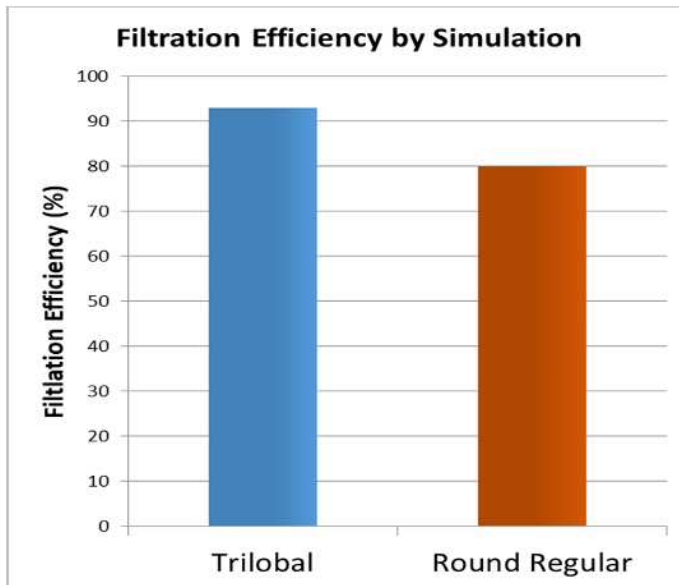
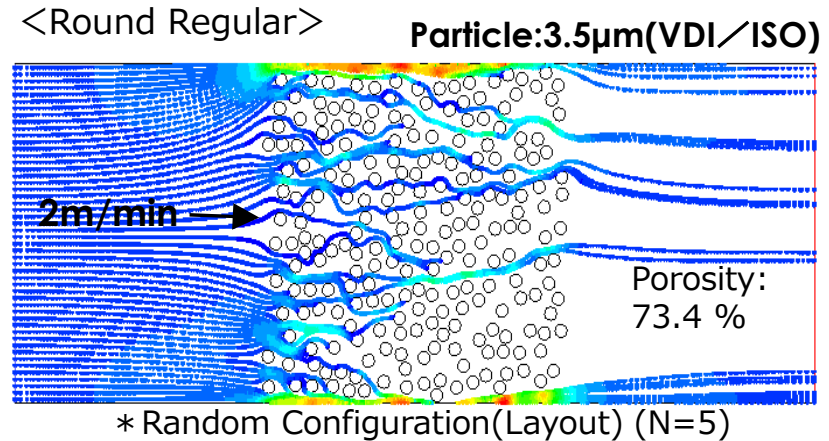
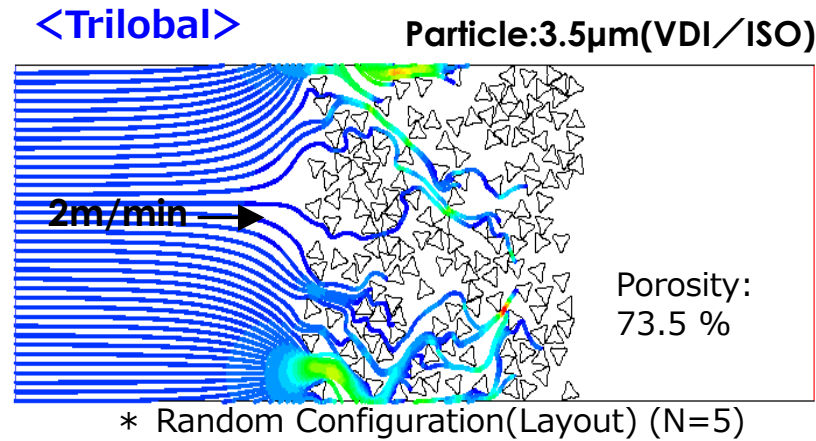
Software : Fluent 18.0(ANSYS/USA)
2 Dimensions Isothermal Steady-state Analysis

Area of the blue part : not more than 0.015m/s(=0.9m/min)

Filtration Simulation

Particle Capture Simulation / Needle Felt

You can see that the collection efficiency of the Trilobal is high.



* **Analysis Method**
Software : Fluent 18.0(ANSYS/USA)
2 Dimensions Isothermal Steady-state Analysis