



S3D Polymer Materials Science

Syvek® S3D Polymer Manufacturing Process

The patented Syvek® bio-engineering process optimizes the isolation, growth, purification and harvest of highly concentrated strands of the poly-N-acetyl glucosamine (p-GlcNAc) polymer-containing fiber we call Syvek® S3D. The unique three-dimensional structure of S3D fibers presents a vast array of densely packed bonding sites, each of which activate the natural clotting agents in blood, accelerating hemostasis. These complex strands can be formulated into a wide range of product configurations – membranes, sponges, films, filaments, and gels – for a variety of hemostatic applications.



Syvek[®]
Hemostasis Innovation™

Syvek® S3D is bio-engineered and manufactured in a highly controlled environment to exacting standards for unparalleled product uniformity.

STAGE
01

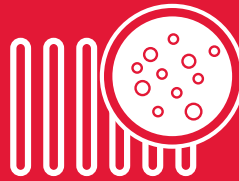
**Cultivate
Microalgal
Cell Cultures**



Bio-engineered growth of cells rich in S3D microfibers.

STAGE
02

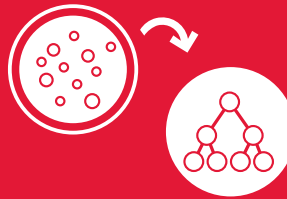
**Isolate the
S3D
Polymeric
Fiber**



Separation of the S3D fibers from the microalgal cells.

STAGE
03

**Engineer
Application-
Specific
Products**



Configure the S3D fibers for distinct clinical roles.

STAGE
04

**Final Product
Formulation**



Use state of the art technologies to optimize product performance.

STAGE
05

**Sterilization and
Packaging Prior
to Shipment**



Easily managed single unit packages improve end-user inventory control and shelf-life.

Syvek® S3D development process is protected by over a dozen patents.

US Patents include: 6,864,245; 6,743,783; 6,686,342; 6,630,459; 6,610,668; 6,599,720; 6,063,911; 5,858,350; 5,846,952; 5,686,115; 5,635,493; 5,624,679; 5,623,064; 5,622,834

Syvek[®]



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