

How can we reduce risk and increase efficiency?

Polymers for single-use bioprocessing bag films

DOW[®]



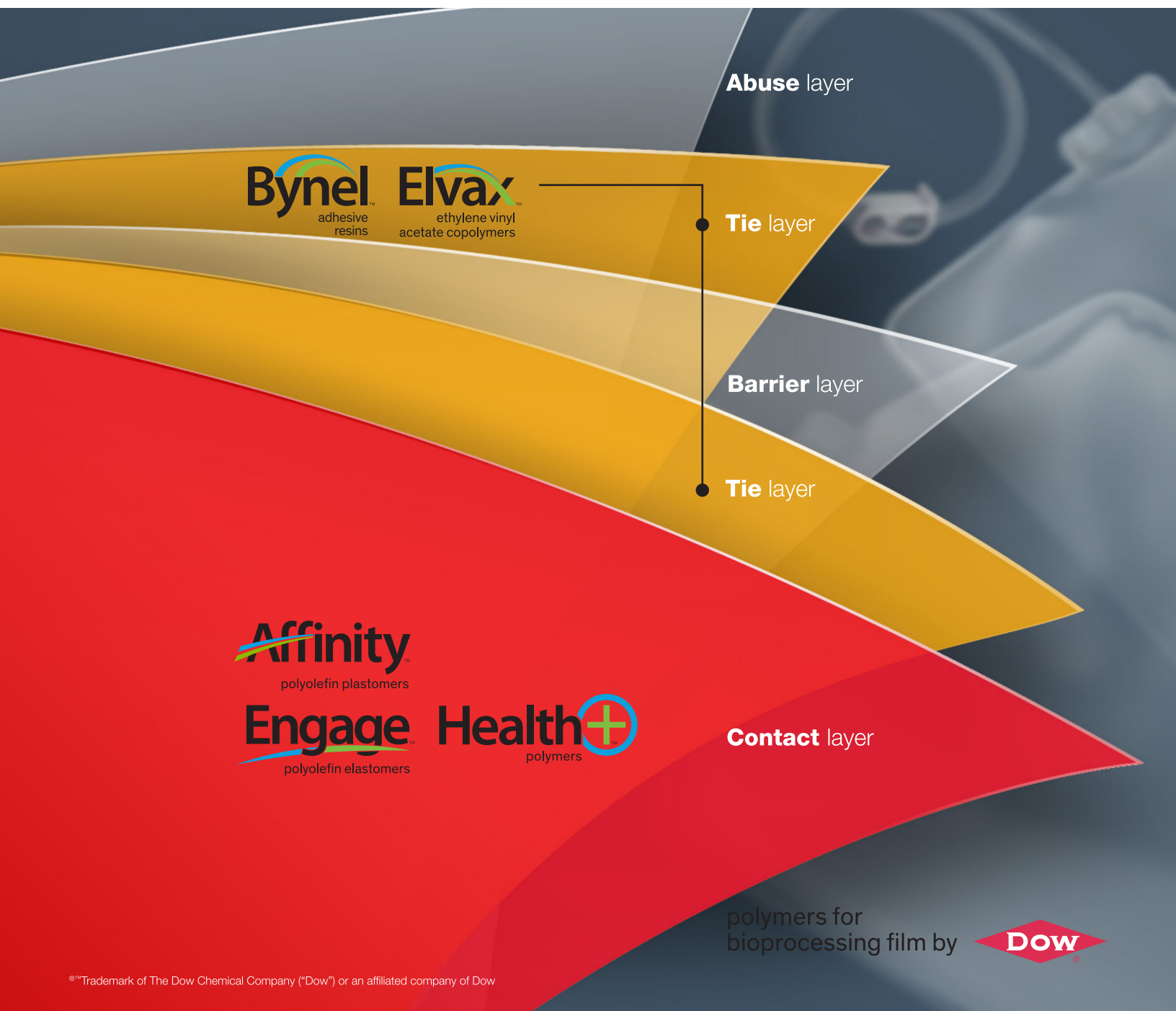
Better performance is in the bag.

Advanced polymers help improve film structures.

Cleanliness. Safety. Reliability. Efficiency. That's what manufacturers expect out of their single-use systems for biopharmaceutical processing. And it's what we can help deliver.

We're excited to be a part of this growing industry and have been busy developing a wide range of resins designed for the unique needs of contact and tie layers in bioprocessing bag film structures:

- Advanced contact layer resins optimized for cleanliness and excellent sealing properties
- A broad range of tie layer materials for adhesion to nylon and ethylene vinyl alcohol (EVOH), as well as many other substrates
- DOW™ HEALTH+™ offerings for critical layers of the structure
- Globally available products to simplify regional development
- Gamma irradiation stability



Proven performance...plus

Our rich portfolio of materials for bioprocessing applications features:

- **ENGAGE™ 8480K HEALTH+™ and ENGAGE™ 030902 HEALTH+™ Polyolefin Elastomers (POEs)**, which were specifically developed to meet the rigorous demands placed on bioprocessing contact layer film. These exciting solutions combine outstanding toughness, flexibility and resilience with extremely high levels of cleanliness and sealability. Equally important, they're backed by our HEALTH+™ service offering, which includes but is not limited to:
 - Secure, global product supply
 - 1-year notification of change (NOC) + 1-year right to buy
 - Drug master file (DMF) listings
 - USP Class VI and/or EU Pharmacopeia
 - USP <661.1>



In addition to helping reduce your workload, these benefits can help speed up development.

- **AFFINITY™ Polyolefin Plastomers (POPs)** for contact layers with exceptional clarity, gloss and abuse resistance, as well as advanced sealant performance.
- **BYNEL™ Adhesive Resins** for strong, functional bonds with polyethylene and a wide range of other substrates, including nylon and EVOH.
- **ELVAX™ Ethylene Vinyl Acetate (EVA) Copolymers**, which bring together exceptional toughness and clarity with low temperature sealing, flexibility, puncture resistance and more to offer excellent tie layer performance.

Collaborate. Innovate. Accelerate.

Another “plus” you can count on is our strong belief in the power of collaboration. In fact, Pack Studios – our exclusive, global network of technical experts, equipment and testing capabilities – was created to help bring innovative solutions to market faster. So, in addition to helping develop advanced bioprocessing film structures, we can also screen them more efficiently.

What are your bioprocessing film challenges?

Let's turn them into opportunities.

Visit dow.com/bioprocessing or ask your Dow representative for more information about ENGAGE™ HEALTH+™ POEs and other Dow polymers for bioprocessing bag films.

For more information about Dow, visit www.dow.com/about. To contact a Dow representative, visit www.dow.com/contact.

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