

Polymer Film-Based Services: Product Development, Manufacturing Support and Failure Analysis

The Polymer Laboratory at Stress Engineering Services, Inc. delivers a comprehensive range of engineering and testing services specifically focused on polymeric materials.

Whether it is the development of a new polymer formulation to achieve specific product objectives, characterizing/evaluating existing polymer structures for a new application, or testing to determine the life-limiting degradation mechanisms via accelerated aging techniques, Stress Engineering can support your application.



Dedicated Polymer Laboratory at Stress Engineering

Our team is equipped with the experience and technologies to provide expert engineering design, analysis, testing, and custom R&D to support our clients at all stages of their unique product and process lifecycle.

One area of deep expertise is polymer films. Our portfolio of industry experience includes:

- Health, hygiene, and medical films
- Packaging and thermoformable films
- Display and graphic films
- Films for electronics and electrical applications
- Films for adhesive tapes and liners

Resin Selection for Film Applications - Resin selection for extruded films, monolayer or multilayer, is a core expertise. We support new product development and cost savings efforts.

Film-Based Product Design - Film design is based on the material selection and the process used to manufacture film-based products. Our team translates your application and specific needs into key performance requirements. We anticipate plausible failure modes and translate them into robust product specifications.

Cast and Blown Film Extrusion - Our experience with development and troubleshooting of monolayer and multilayer cast films and blown film processes includes extrusion processes (both single and direct twin screw), die and feed-block selection, web handling, in-line converting, and roll winding.

Film and Laminate Characterization - We provide standard and customized test methods to evaluate film materials, processes, and final product.

Technical Publications

[Polymer Film-Based Product Development, Manufacturing Support and Failure Analysis Services](#)

[Polymer Testing & Engineering Services](#)

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Click [here](#) to read about Sustainability and Product Innovation.

Stress Engineering Services, Inc. (SES) offers an integrated team of experts in creative design, functional engineering, design for manufacturing, materials, cost analysis, and reliability to deliver the highest level of innovation and technical success in developing products and packaging. SES provides expert engineering consulting services for:

- New Product Development
- Material Science
- Risk Assessment
- Human Factors
- Failure Analysis
- Package Development
- Testing
- Industrial Design

SES has extensive laboratory testing capabilities for evaluating materials, product performance, life assessment, and failure analysis. We have extensive simulation capabilities to predict mechanical, thermal, and fluid flow characteristics of complex problems.

Take your engineering to the next level. Find out more at innovation.stress.com.

To learn more about Stress Engineering Services, Inc., visit our [website](#) or contact us at 513-336-6701.

ISO 9001:2015 & ISO 13485:2016 Certified
ISO 17025:2005 Accredited for Several Test Methods
ISTA Certified Testing Laboratory Member

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