



Case Study

Automotive Seating



Summary: Acme Mills collaborated with a leading furniture manufacturer to revolutionize sectional sofa design by introducing Dymetrol®, an innovative suspension fabric. This partnership aimed to achieve a lightweight, durable, and comfortable sofa, addressing the industry's demand for cost-effective and

easily transportable furniture solutions.

Project Specifications

- ⚙️ **Material Supplied:** Dymetrol® suspension fabric, a 100% woven polyester material renowned for its durability, recyclability, and lightweight properties.
- ⚙️ **Application:** Integrated into the sectional sofa design to replace traditional internal components such as springs and foam padding, thereby reducing weight and production costs.
- ⚙️ **Quantity:** Sufficient material provided to produce the new sectional sofa model, aligning with the manufacturer's production goals.
- ⚙️ **Delivery Schedule:** Coordinated with the manufacturer's timeline to ensure seamless integration into the design and production process without delays.

Capacity and Scalability

Acme Mills demonstrated the ability to scale production efficiently, accommodating the furniture manufacturer's requirements within the agreed timeline. The company's advanced manufacturing capabilities enabled it to handle substantial orders while maintaining stringent quality standards.



Manufacturing Details

MATERIAL SELECTION AND PREPARATION

Dymetrol® is produced using high-quality polyester fibers combined with DuPont's Hytrel®, creating bond points that act as mini springs.



PRODUCTION PROCESS

Weaving: Utilizes a sateen weave to achieve the desired strength and flexibility.

Heat Setting: Bond points are heat-set to ensure uniformity and durability.

Customization: Fabric is tailored to specific widths and lengths to meet the furniture design requirements.



QUALITY CONTROL

Material Testing: Conducted tensile strength and durability tests to ensure performance standards are met.

Visual Inspection: Checked for defects such as uneven bonding or impurities.

Dimensional Checks: Verified fabric dimensions to match the manufacturer's specifications.

Lot Tracking: Implemented batch numbering for traceability and quality assurance.





Uses and Applications

Dymetrol® offers several advantages in furniture applications:



ENHANCED COMFORT

Provides a supportive and comfortable seating surface by evenly distributing weight and reducing pressure points, leading to an improved user experience.



WEIGHT REDUCTION

Eliminates the need for heavy internal components, contributing to overall product weight reduction and facilitating easier shipping and handling.



DESIGN FLEXIBILITY

Allows for innovative furniture designs, including thin-profile sofas that maximize space and meet modern aesthetic standards.



DURABILITY

Constructed with a sateen weave of polyester yarn and DuPont's Hytrel®, ensuring long service life without deformation, sagging, or creep over time.



SUSTAINABILITY

Made of 100% recyclable polyester, reducing environmental impact and minimizing the use of non-recyclable materials.

Through the integration of Dymetrol® suspension fabric, Acme Mills successfully enhanced the furniture manufacturer's sectional sofa by improving comfort, reducing weight, and allowing for innovative design solutions. This collaboration underscores Acme Mills' commitment to providing high-performance, sustainable materials for the furniture industry, contributing to operational efficiency and customer satisfaction.

Contact Acme Mills

Need assistance in maximizing manufacturing efficiencies to ensure quality and optimize costs? Call or email us today and one of our skilled team members will lead the way. (800) 521-8565 ~ info@acmemills.com