ACME MILLS
World Class Textile Solutions

Dymetrol Suspension Fabrics

Dymetrol Suspension Fabrics Overview

Dymetrol Suspension fabrics are advanced, high-performance textiles engineered for use in seating applications, where they replace traditional materials like foam and springs. These fabrics are designed to offer superior comfort, durability, and ergonomic support while optimizing cost and sustainability.

dymetrol
part of the solution

Key Characteristics

ELASTICITY AND STRENGTH

Provides consistent support and long-lasting durability.

LIGHTWEIGHT DESIGN

Reduces the overall weight of seating solutions.

BREATHABILITY

Enhances comfort by allowing airflow.

CUSTOMIZATION

Tailored tension and patterns to suit specific seating applications.

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Dymetrol Suspension Fabrics (cont'd)

Applications of Suspension Fabrics

MEDICAL & PHARMACEUTICAL

- **Wheelchairs**: Enhanced comfort and support for long-term use.
- **Medical Beds**: Contributes to adjustable, ergonomic surfaces for patient care.
- **Rehabilitation Equipment**: Provides stable and supportive seating for therapeutic devices.

MILITARY

- **Tactical Seating**: Durable and lightweight materials for military vehicles.
- **Field Equipment**: Reliable support in harsh environments.

CONSTRUCTION

- **Heavy Machinery Seats**: Improves operator comfort and reduces fatigue during extended use.
- **Safety Gear**: Integrated into harnesses and other support structures.

CHEMICAL INDUSTRY

- **Operator Chairs**: Resistant to chemicals, providing safe and comfortable seating in hazardous environments.
- **Control Room Furniture**: Durable under continuous use in demanding conditions.

FOOD AND BEVERAGE

- **Clean Room Seating**: Meets hygiene standards with washable and breathable
- **Production Line Seats**: Enhances worker comfort to boost productivity.

Dymetrol Suspension Fabrics (cont'd)

ADDITIONAL INDUSTRIES

- **Aerospace**: Lightweight, flame-retardant fabrics for aircraft seating.
- **Office Furniture**: Breathable and ergonomic materials for desk chairs.
- **Public Transit**: Long-lasting solutions for high-traffic use in buses and trains.

Why Choose Acme Mills for Suspension Fabrics?

Acme Mills has been a leader in the textile industry for over a century, providing innovative, high-quality solutions for a diverse range of applications. Our suspension fabrics stand out for:

PROVEN EXPERTISE

Decades of experience in developing seating solutions for various industries.

SUSTAINABILITY FOCUS

Commitment to eco-friendly materials and processes.

CUSTOMIZATION

Tailored designs to meet the unique demands of your industry.

RELIABLE PERFORMANCE

Trusted by leading manufacturers for consistency and durability.

Sustainable Solutions for Superior Seating

Acme Mills' suspension fabrics are redefining seating applications by delivering unmatched comfort, efficiency, and reliability. From automotive to medical, our products support industries in achieving their performance and sustainability goals.

Case Study

Automotive Seating

Summary: Acme Mills partnered with a leading automotive manufacturer to enhance vehicle seating by introducing Dymetrol®, an innovative suspension fabric. This collaboration aimed to improve passenger comfort, reduce seat weight, and increase design flexibility, aligning with the industry's evolving standards and consumer expectations.

Project Specifications

- **Material Supplied:** Dymetrol® suspension fabric, a 100% woven polyester material known for its durability, recyclability, and lightweight properties.
- **Application:** Integrated into the vehicle's seating to replace traditional components such as springs, wires, clips, and reduce the amount of polyurethane foam used.
- **Quantity:** Sufficient material provided to outfit the seating across multiple vehicle models within the manufacturer's lineup.
- **Delivery Schedule:** Coordinated with the manufacturer's production timeline to ensure seamless integration without disrupting assembly operations.

Capacity and Scalability

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

Dymetrol Suspension Fabrics (cont'd)

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 automotive seating 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.

Dymetrol Suspension Fabrics (cont'd)

Uses and Applications

Dymetrol® offers several advantages in automotive seating applications:

ENHANCED COMFORT

Provides a supportive and comfortable seating surface by evenly distributing weight and reducing pressure points, leading to a more pleasant driving experience.

WEIGHT REDUCTION

Eliminates the need for heavy metal components and reduces foam usage, contributing to overall vehicle weight reduction and improved fuel efficiency.

DESIGN FLEXIBILITY

Allows for innovative seat designs, including thin-profile seats that maximize cabin 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

Allows for innovative seat designs, including thin-profile seats that maximize cabin space and meet modern aesthetic standards.

Through the integration of Dymetrol® suspension fabric, Acme Mills successfully enhanced the automotive manufacturer’s seating by improving passenger comfort, reducing seat weight, and 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