



› PRODUCT BULLETIN

Avient Thermoplastic Tapes

Engineered or unidirectional fibers are combined with thermoplastic resins to create continuous fiber-reinforced composite materials that provide superior strength-to-weight ratio and high performance for reinforcement across a broad range of applications.

Our comprehensive portfolio consists of Polystrand™ and Fiber-Line™ branded tapes, made using unique processes and materials to customize performance properties to meet specific application requirements such as tensile and flexural strength, impact performance, creep, chemical, and UV resistance. Our technical and application development teams will work with you to provide material selection support and product customization to achieve your performance needs.

POLYSTRAND™ THERMOPLASTIC TAPES

STRONG, IMPACT RESISTANT, LIGHTWEIGHT

Formulated with glass fiber reinforcement and engineered thermoplastic resins, these continuous fiber composites offer reduced weight while maintaining exceptional strength and impact resistance. Available in rolls of unidirectional tape as well as X-Ply™ 0°/90° and other multi-ply laminates, Polystrand materials can be post-

formed and co-molded with mixed materials in thermoforming and injection molding processes to provide lightweight strength to a variety of part designs.

KEY FEATURES

- Formulated with 58–80% fiber by weight
- Available in rolls of 25 in/63.4 cm wide unidirectional tape, slit widths available up to 2 in/5 cm
- Easily recyclable compared to thermoset composites

FIBERS FOR POLYSTRAND TAPES

- Fiberglass

THERMOPLASTIC RESINS

- PP
- PE
- PET
- PA6

KEY APPLICATIONS

- Building & Construction
- Automotive
- Consumer & Recreation
- Oil & Gas

FIBER-LINE™ THERMOPLASTIC TAPES

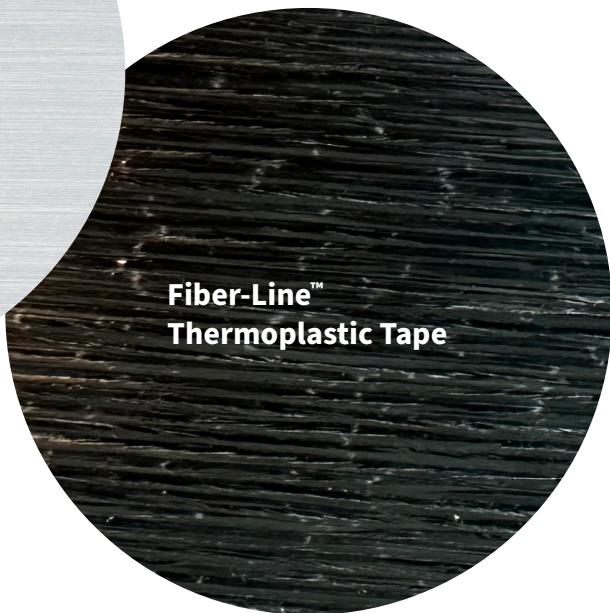
STRONG, CREEP RESISTANT, CHEMICAL RESISTANT

Fiber-Line Specialty Engineered Thermoplastic Tapes are formulations composed of a wide range of fibers that are uniquely engineered to enhance fiber performance—such as twisting and coating—and then custom manufactured into a composite tape with a thermoplastic resin.

Engineered Fiber Thermoplastic Tapes provide excellent strength-to-weight and creep resistance suitable for demanding composite applications. Providing strength and reinforcement, Fiber-Line tapes can be custom formulated to meet mechanical or thermal performance requirements.



Polystrand™
Thermoplastic Tape



Fiber-Line™
Thermoplastic Tape

KEY FEATURES

- Compatible with various Fiber-Line fibers, performance-adding processes, and thermoplastic resins to meet your application needs
- Tapes available up to 5 inch width via spools or cut-to-length
- Rapid prototyping

FIBERS FOR FIBER-LINE TAPES

- Carbon fiber
- Fiberglass
- Kevlar® Para-Aramid
- Nomex® Meta-Aramid

FIBER-LINE PERFORMANCE-ADDING PROCESSES

- Coating
- Twisting

KEY APPLICATIONS

- Oil & Gas
- Industrial
- Aerospace

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