



Features and Benefits

- Lightweight, tough, hightemperature thermoplastic
- Unique combination of mechanical, thermal, chemical, and electrical properties
- Excellent resistance to hydrolysis and nuclear radiation
- Downhole applications to 482°F (250°C)/1,400 bar
- Increases temperature and pressure capability for valve seats

Applications

- Well test equipment electrical logging
- · Drilling equipment
- Liner hanger
- Completion equipment
- · Production equipment
- · Wireline tools

Contact Us

Greene Tweed Tel: +1.281.765.4500 Houston, TX, USA Fax: +1.281.821.2696

Thermoplastic Material

To maintain profitability in increasingly competitive markets, businesses must successfully exploit materials. Arlon®, Greene Tweed's high-performance engineering polymer, provides a reliable solution for businesses developing new products or modifying existing materials.

Arlon®

- Replaces metal parts given its excellent strength-to-weight ratio
- Performs under conditions generally considered too harsh for plastics, e.g., cryogenic to above 482°F (250°C) and downhole to 2,000 bar (30,000 psi)
- · Resists corrosion across a broad range of chemicals
- Provides total immunity to hydrolyzing conditions of high-pressure and high-temperature steam service
- Delivers excellent thermal stability as its coefficient of thermal expansion can be dictated by the filler system used
- · Can be injection molded for exceptional flexibility
- Provides excellent wear resistance for use in bearings
- · Absorbs and dissipates energy unlike normal PEEK, which shatters
- Resists nuclear radiation

Successful implementation of substitute materials relies on close collaboration between suppliers and users. Greene Tweed's early involvement on new product development helps to determine Arlon's® suitability.

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

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07/18-GT DS-US-0F-015



Successfully Replaced Metal Components

Arlon successfully replaces metal components in the following areas:

Chemical

Valve seats, bearings, pinch valve body, pump bearings, gear pump housing and stem seals

Offshore

Valve seats, bearings, sub-surface safety valve backup, bushings, ball valve thrust, washers, seats and body seals

Medical

Check valve seats, ball valve seats and prosthetics

Pharmaceutical

Autoclave, liquid chromatography, tubing ferrules and compression nuts

Industrial

Compressor port plates, rotary vanes, hydraulic actuator housing and solenoid valve stem tips