

PROTECHNA®

Superior Protection in Severe Environments

ENHANCED RELIABILITY

Greene, Tweed's ProTechna® technology utilizes thermoplastic and elastomeric solutions to provide a new level of protection for critical components such as antennas, electronics and sensors in extreme environments. ProTechna shields sensitive components thereby eliminating direct exposure to erosion, corrosion and abrasion resulting from downhole conditions. It also provides protection from extreme temperatures, pressures and harsh chemicals. This new technology provides the superior performance of filled and unfilled Arlon® grades of PEEK and PEK as well as the high-temperature and chemical resistant characteristics offered by both Chemraz® FFKM and FKM elastomers.

In addition to enhancing the reliability of electrical devices in harsh environments, Greene, Tweed's ProTechna technology allows customers to integrate a variety of components including Greene, Tweed's Seal-Connect® product line into one assembly, thus reducing the number of parts needed. This allows customers to design their tools using "plug & play" functionality for easy field redressing.

Greene, Tweed evaluates each customer's application and uses its technical expertise in materials, engineering and design to partner with the customer to select the material that will provide the best level of protection and performance for integrated and critical components.

FEATURES & BENEFITS

- Enhanced chemical and thermal protection increases reliability and efficiency of electrical components, thereby extending component lifetime
- Wide range of thermoplastic and elastomeric materials (e.g., Chemraz, Arlon) offers customers a variety of solutions
- Allows sensors to be placed outside the tool, enhancing communication logs and increasing data reliability

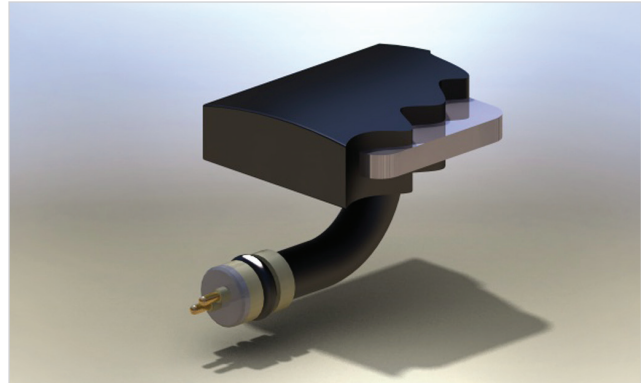
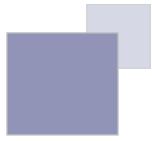


Illustration incorporating Seal-Connect, ProTechna technology

- Consolidation of multiple pieces into one part reduces the number of parts needed for assembly and simplifies the design
- Enhanced bonding technology builds a stronger bond than conventional adhesive technologies so gaps will not occur between material and substrate
- Plug and play components are easily replaced in the field, saving time and the expense of the redress process

APPLICATIONS

- MWD (Measurement While Drilling)/LWD (Logging While Drilling) and Wireline
 - Sensors
 - Antennas
 - Electrodes
 - Magnets or flux-generating coils (toroids)
 - Pressure gauges
 - Temperature sensors
- Extreme subsea applications



AVAILABLE MATERIALS

- Elastomers
 - Chemraz®
 - FKM
 - Silicone
 - Xyfluor®
- Thermoplastics
 - Arlon®

Note: Temperature, chemical resistance and pressure extremes, etc., will vary with each application requirement.



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