

Falmat<sup>®</sup> offers custom designed aerostat tethers to meet specific requirements for the operating systems of each customer. Key mechanical, electrical and optical components are carefully chosen for the lightest materials, while yielding the highest reliability and meeting customer's application needs. Aerostat tethers are used in both commercial and military markets for a variety of applications, such as, military ground defense surveillance, border security, renewable energy wind turbines and the broadcast entertainment industry.

## Tether Cable Design Attributes:

- Electrical Conductors ETP stranded copper, high-strength copper alloys, copper aluminum, with bare tinned or silver plating constructions
- Optical Fiber Components SMF-28E incased in SS steel tube or simplex designs cabled within power cable cores
- Data Pairs Meeting Ethernet, RS-232, RS-485 and Bus-data rates can be offered
- Strength Layers High modulus synthetic strength layer designs using Kevlar<sup>®</sup>, Twaron<sup>®</sup>, and Vectran<sup>®</sup>, for high fatigue life
- Insulations Lightweight copolymers and fluoropolymers are chosen specific to voltage requirements from 300v to 4.5kv
- Shields Lightweight shield designs are available for EMI/RFI, static dissipation, as well as lightning strike grounding considerations
- Jackets Materials such as TPE, Polyurethane, Hytrel<sup>®</sup>, HDPE and others, considering outdoor environment, cycle duties and handling system are carefully designed into each aerostat tether Falmat<sup>®</sup> produces
- Aerial jacket profile extrusion designs can be offered for reduced strum and drag, high visibility colors, reflective coatings, and external lighting features can be added

Quality: All Falmat<sup>®</sup> cable is carefully monitored and tested in various stages of manufacturing with complete test reports available per lot. Our QMS manufacturing system is certified to AS9100 Rev C, ISO-9001 and ITAR compliant. R&D testing, as well as extensive qualification testing of continuous cycling, break strengths and electro-optical dynamic testing are offered both in-house and through accredited independent test laboratories.

