

The widest range of
mission-critical interconnect
technologies in the world



TurboFlex[®] Wire and Duralectric[™]

TurboFlex®: Ultra-Flexible High Power Cable

- Extremely flexible
- Jacketed with Glenair Duraelectric™
- 20 AWG to 450 MCM
- -65°C to +260°C
- Abrasion resistant
- Standard and custom colors available



TurboFlex®

Ultra flexible rope-lay construction

- High strand count, very flexible
 - M22759/11-8 = 133 X 29 AWG strands
 - TurboFlex 8 AWG = 665 X 36 AWG strands
 - Tin-, Silver-, or Nickel-plated copper
- Bend radius 3X OD vs. 6X+ for M22759
- High performance Duraelectric™ jacket
- Voltage ratings 2000 to 4500 VAC



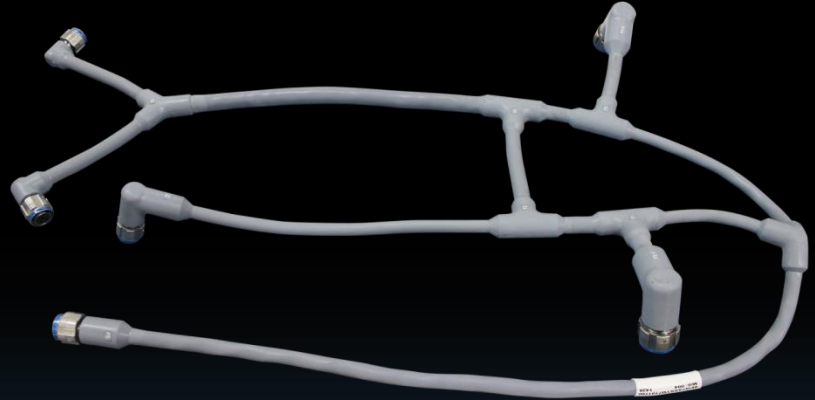
Duraelectric™ Basics

- Jacketing and molding material for wire protection
- QPL since 2006 for MIL-PRF-24758 (US Navy conduit)
- Resistant to:
 - Flame (Low smoke, zero halogen)
 - High and low temps (-65°C to 225°C)
 - Repeated flexing
 - Broad range of fluids
 - CBRN / NBC decontamination
 - Ozone
 - Long-term Direct Sunlight/UV
 - Fungus growth
 - Dielectric breakdown



Uses for Duraelectric™

- Jacketing for cables or conduit
- Completely sealed overmolded systems
- Wire insulation on TurboFlex®
- Jacketing on custom bulk cables extruded in long lengths
- Ground straps
- Autoshrink™ boots & tubing



Qualifications and Important Tests

- MIL-PRF-24758 – US Navy Shipboard Conduit
- FAR 25.853 vertical burn – Commercial aircraft interior flammability
- MIL-STD-810F, Method 504 – Exposure to aircraft fluids
- Bombardier SMP800C – Smoke toxicity in rail cars
- Boeing BSS7230, BSS7238, BSS7239 – Commercial aircraft fire tests
- TOP 8-2-111 –Chemical, biological, radiological, and nuclear decontamination



Duralectric™ in Flight Applications



- Boeing AH-6 Little Bird Helicopter
- Boeing AH-64 Apache Helicopter
- Boeing 787 Dreamliner
- Bombardier Global Express
- Raytheon Wolfpack
- Raytheon SM-3
- NASA Orion Spacecraft
- F-35 Joint Strike Fighter
- Raytheon Next Generation Jammer
- Raytheon ASARS-2
- Embraer KC-390
- Hell fire missile
- Triple Target Terminator (T3)
- TANGO missile
- Tempest EMSEC

Duraelectric™ in Naval Applications

- GD/Electric Boat – Virginia-class submarines
- Littoral Combat Ship, Independence-class
- Zumwalt-class destroyers
- Arleigh Burke-class destroyers, DDG-115 and higher
- Ford-class aircraft carriers
- MIL-PRF-24758 Conduit approved for ALL topside conduit applications in US Navy
- Canadian Halifax-class frigates
- Canadian Victoria-class submarines



Duraelectric™ in Ground Applications

- Bombardier Rail Cars
- Raytheon Air and Missile Defense Radar (AMDR)
- Northrop Grumman G/ATOR
- BAE Paladin M109A7 howitzer (PIM)
- BAE Armored Multi-Purpose Vehicle (AMPV)
- US Army Multi-Mission Launcher (MML)
- GDLS Light Armored Vehicles (LAV III)
- Lockheed Space Fence and LRDR
- Northrop Grumman JCREW MEU Jammer



Duralectric™ in Commercial Applications

- Con Edison – NYC
Utility power and control cables
- Ground Probe – Mine
wall radar monitoring cables



New Jacket Materials

New Flavors of Duraelectric™

Duraelectric™ K

- Ultra Low Temp Flexibility to -110°C (163 Kelvin)
- Gamma radiation resistant
- Spacecraft, satellites, nuclear environments

Duraelectric™ F

- Resistant to jet fuels and oils and flexible to -65°C
- Harsh environments that require low temp flex
- Aircraft and ground vehicle fuel systems

Duraelectric™ Light

- 25% lighter than original Duraelectric
- Excellent abrasion resistance
- Same great fluid and fire resistance as original Duraelectric

Duraelectric™ Family of Materials

	Duraelectric™	Duraelectric™ K	Duraelectric™ F	Duraelectric™ Light
Lowest Flex Temp.	-65°C	-110°C	-65°C	-65°C
Max. Continuous Service Temp.	260°C	200°C	200°C	200°C
Density	1.29	1.18	1.45	0.96
Abrasion Resistance	Good	Good	Very Good	Excellent
Fire Resistance	Excellent	Excellent	Excellent	Excellent
Low Smoke, Zero Halogen	Yes	Yes	No	Yes
Ozone & Sunlight Resistance	Excellent	Excellent	Excellent	Excellent
Gamma Radiation Resistance	Fair	Very Good	Poor	Fair
Fuel Resistance	Poor	Poor	Excellent	Poor

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