



High Temperature and Specialty Military Wire and Cable



CABLE USA

MANUFACTURERS OF
HIGH TEMPERATURE CUSTOM
ENGINEERED CABLES





IS A WORLD LEADER IN SPECIALTY MILITARY CABLE

Cable USA a world leader in specialty military cables. Pioneers in developing military solutions, we offer a line of cables made with high temperature, aerospace grade insulation designed for long life in harsh military environments.

MILITARY SPECIALTY CABLES

Cable USA supplies some of the most sophisticated & rugged cables used in supporting military projects including:

- ▲ Active Noise Reduction (ANR) technology in Military headsets
- ▲ Joint Tactical Radio System (JTRS)
- ▲ High Performance Waveform (HPW)
- ▲ Single Channel Ground and Airborne Radio System (SINCGARS)

Additional programs supported include:

- ▲ VIS (Vehicular Intercommunication System)
- ▲ Bowman project
- ▲ M777A1 155M ultra-lightweight field howitzer (UK)
- ▲ Stryker, Abrams, and Humvee vehicle projects
- ▲ Towed Artillery Digitization (TAD)
- ▲ Movement Tracking System (MTS) and many other programs

Our military specialty cables are specified and used by defense contractors such as Northrop Grumman and General Dynamics.

Cable USA scientists and engineers are currently developing cables to support next-generation technology for ANR and other systems.

MILITARY RETRACTILE CABLES

Our military retractile cables are rated for 600V, and have far superior memory than conventional cords. The military retractile cables are specifically designed for high reliability in abusive environments.

M27500 CABLES

Cable USA's M27500 cable range incorporates: MIL-W-22759/16, MIL-W-22759/17, MIL-W-22759/18, MIL-W-22759/19, and many other types are also offered.

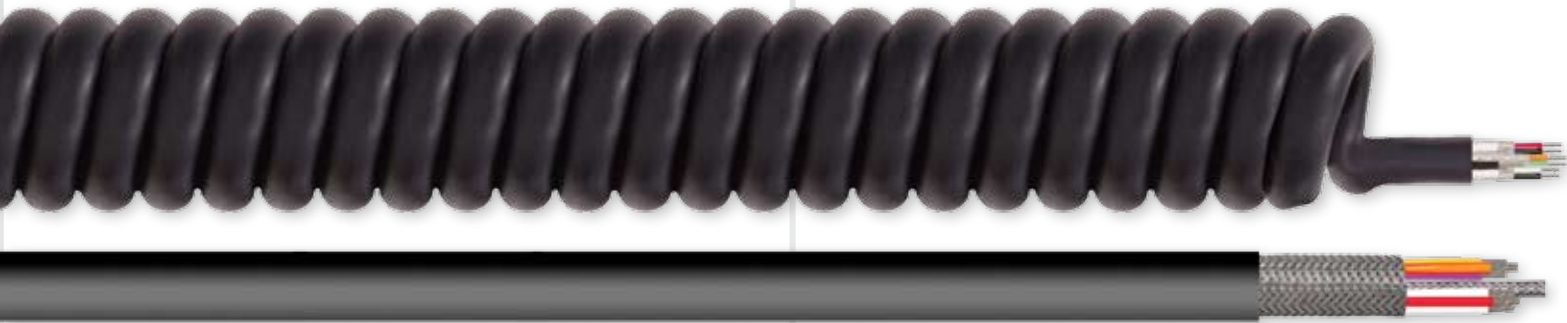
Additional designs to operate in temperatures up to 538°C and low smoke / zero halogen constructions are also available.

SPECIFICATIONS:

- ▲ Construction – Voltage Rating 600V RMS, Temperature Rating -55°C to +150°C, Minimum Dielectric Strength 1500V RMS, Jacket Spark Test 1500V RMS, Heat Aging and Thermal Shock 200°C, Cold Bend Test -55°C.
- ▲ Conductor – Light weight unidirectional concentric tin-coated copper.
- ▲ Insulation – Extruded ethylene-tetrafluoroethylene ETFE, conforming to MIL-W-22759/18.
- ▲ Cabling – Multi-conductors twisted with a left hand lay, standard colors solid white, white with blue stripe, white with orange stripe, or white with green stripe.
- ▲ Shield – Braid of AWG tin-coated annealed copper wire, 90% minimum coverage, a high temperature marker tape beneath the braid carrying the cable code.
- ▲ Jacket – Extruded ethylene-tetrafluoroethylene ETFE, .007" minimum wall thickness for sizes 26 to 20 AWG and .010" minimum wall thickness for the larger sizes in accordance with WC-27500, standard color white.



CABLES DESIGNED FOR LONG LIFE IN HARSH MILITARY ENVIRONMENTS



GOVERNMENT APPROVALS (QPL)

Military Specification	AWG Sizes	Approval No.
M22759/16	24 THROUGH 02	NAC C16.165/01-31-95
M22759/17	24 THROUGH 20	NAC B16.165/01-31-95
M22759/18	26 THROUGH 10	NAC B16.165/01-31-95
M22759/19	26 THROUGH 20	NAC B16.165/01-31-95

27500G CABLE CAPABILITIES

Symbol	Basic Wire Specification	Insulation Type
E	MIL-W-22759/2	TFE-TFE Coated Glass-NCC Conductor
EA	MIL-W-22759/1	TFE AND TFE Coated Glass-NCC Conductor
RA	MIL-W-22759/3	TFE-Glass-TFE NCC Conductor
RB	MIL-W-22759/4	TFE-Glass-TFE SPC Conductor
TE	MIL-W-22759/16	Extruded ETFE TPC Conductor
TF	MIL-W-22759/17	Extruded ETFE SCHSC Alloy
TG	MIL-W-22759/18	Extruded ETFE TPC Conductor
TH	MIL-W-22759/19	Extruded ETFE SCHSC Alloy

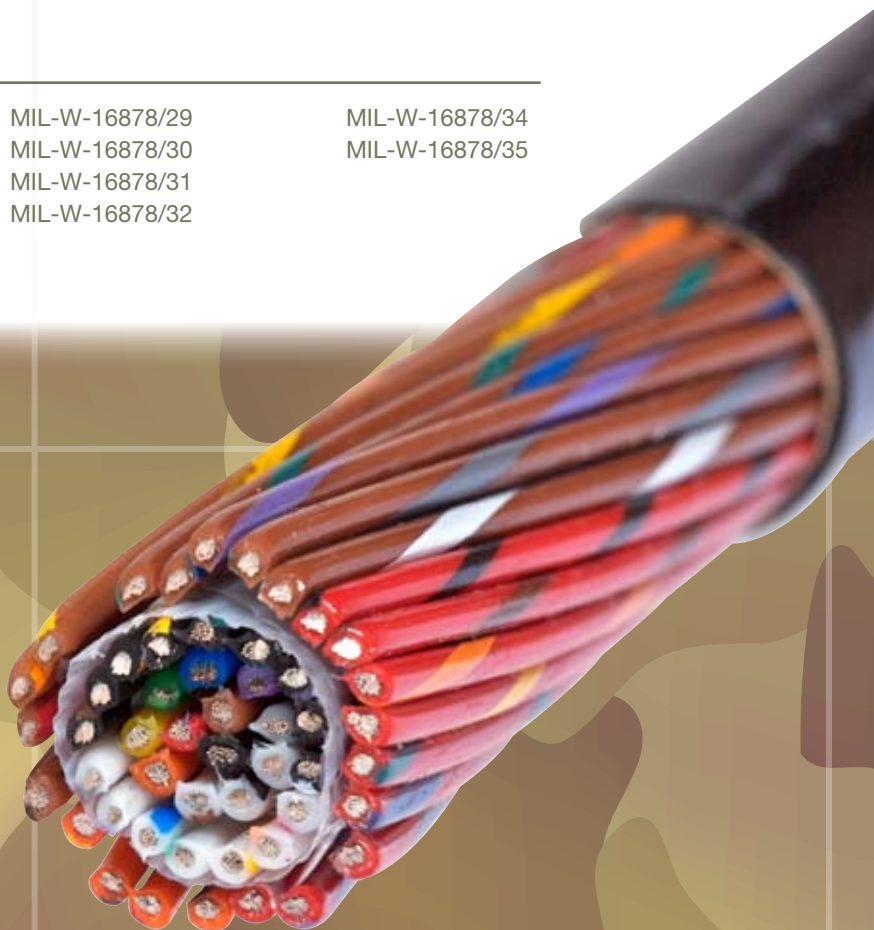
MIL-W-16878E (NAVY)

MIL-W-16878/7	MIL-W-16878/13	MIL-W-16878/29	MIL-W-16878/34
MIL-W-16878/8	MIL-W-16878/20	MIL-W-16878/30	MIL-W-16878/35
MIL-W-16878/11	MIL-W-16878/21	MIL-W-16878/31	
MIL-W-16878/12	MIL-W-16878/22	MIL-W-16878/32	

Cage Code: 67050



MANUFACTURERS OF
HIGH TEMPERATURE CUSTOM
ENGINEERED CABLES





FACILITY HISTORY

Business Established: 1984
 Present Building Constructed: 1987
 First Expansion: 1989
 Second Expansion: 1994

FACILITY SIZE

Land Area: 3.37 Acres
 Total Size of Facility: 66,000 Square Feet
 Office Space: 6,000 Square Feet
 Factory / Production: 57,000 Square Feet
 Distribution / Warehouse: 3,000 Square Feet

PRIMARY PROCESSES

Cable USA is an integrated facility which houses all engineering, manufacturing, quality control and administrative operations under one roof.

PRODUCT TYPES AND PROCESSES

- ▲ Thermoplastic Fluoropolymer Extrusion – Specializing in FEP, ETFE, and PFA
- ▲ Textile Braiding
- ▲ Stainless Steel Braiding
- ▲ Short-Run / Specialty Cables
- ▲ Miniature Multi-Conductor Cables
- ▲ Extreme-Temperature Applications
- ▲ Composite Cable Design
- ▲ Coiled / Retractable Wire and Cable

MATERIALS USED

- | | |
|-----------------------|----------------------|
| ▲ FEP | ▲ E-CTFE |
| ▲ ETFE | ▲ Polyethylene |
| ▲ PFA | ▲ Polypropylene |
| ▲ Polyurethane | ▲ PVC |
| ▲ Silicone Rubber | ▲ PVDF |
| ▲ Polyester Elastomer | ▲ And many others... |

EXTRUSION CAPABILITIES

- ▲ (9) Hot-Melt Extrusion Lines
- ▲ (2) Silicone (HAV) Extrusion Lines

CONDUCTORS AND ADDITIONAL MATERIALS

- ▲ All types & platings of copper conductors
- ▲ Copper-alloy high performance conductors
- ▲ Thermocouple alloys
- ▲ PTFE tape
- ▲ Mica tape
- ▲ Ceramic tape
- ▲ Fiberglass tape
- ▲ Fluoropolymer tape (sintered, un-sintered, conductive, colored)
- ▲ Shielding Braids (copper, NPC, alloy)
- ▲ Armoring Braids (SS302, 304, 316)
- ▲ Textile Braids (glass, K-fiber)

PRODUCT SIZE RANGE

Minimum

- ▲ #32 AWG / .002 wall thermoplastic
- ▲ #24 AWG / .015 wall silicone

Maximum

- ▲ 1100 MCM
- ▲ 3.000" O.D. (braided jacket)
- ▲ 2.000" O.D. (high-temperature jacket)
- ▲ 1.750" O.D. silicone rubber

Maximum Reel Size: 84.00"

SOME OF OUR SPECIALTY CABLE TYPES

- ▲ High-Temperature Wire & Cables
- ▲ Coil Cords
- ▲ Very Large Cables
- ▲ Flat Festoon Cables
- ▲ Vented Cables
- ▲ Pump Cables
- ▲ Custom Products per Customer Specifications

SYNERGIZING TECHNOLOGY

Cable USA has the unique ability to provide a comprehensive family of high-temperature wire and cable products to address the specialized needs of industry. With over 50-years of combined experience in solutions for the Wire and Cable industry, our World Class team of polymer scientists and engineers are uniquely qualified to develop solutions to new technology challenges.



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A member of The Marmon Group of companies