U.S. Navy MIL-C-915/21 underwater wet welding & cutting cable

# MIL-C-915/21 (A-A-59609) & #1WC

## 600 V Underwater Wet Welding Cable




MIL-C-915/21F · 600 V · U.s. navy mil-c-915/21 underwater wet welding & cutting cable

**MIL-C-915/21F / AWS D3.6M** | **600 V (150–400 A DC)** | **Class M Rope-Lay Cu**

## Application

U.S. Navy MIL-C-915/21 (CID A-A-59609 Type TRXF) & BR-22 / BR-20 Underwater Wet Welding and Ultrathermic Cutting Extra-Flexible Electrode Cable (MIL-C-915/21F, 600 V, -40 to +90 °C, min. bend radius 6 × OD).

**Typical uses:** Naval Shipboard & Submarine Outboard, Offshore Cathodic Protection (ICCP), Underwater Welding & Nuclear Pools, Deep-Well & Seabed Pump Feeders

## Construction






Cross-section, not to scale

1. ASTM B172 Class M Rope-Lay Conductor
2. Flex-Slippage Separator Tape
3. Watertight Integral EPR / Polychloroprene Jacket

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage / transmission duty** | 600 V (MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding) | **Core / conductor construction** | ASTM B172 Class M Rope-Lay Conductor — 2,107 strands (#1 AWG), 2,646 strands (1/0) or 3,325 strands (2/0) of #34 bare copper |
| **Primary dielectric / buffering** | Flex-Slippage Separator Tape — Non-sticking separator wrap preventing rubber penetration during vulcanization | **Continuous operating temperature** | −40…+90 °C (subsea, marine & submersible duty) |
| **Short-circuit / peak thermal rating** | Verified thermal stability per MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding | **Storage & transport temperature** | −40…+80 °C on export wooden/steel drum |
| **Outer protection / armouring** | Watertight Integral EPR / Polychloroprene Jacket — ≥0.047" (1.19 mm) heavy-duty black vulcanized rubber (600 V, 150–400 A DC subsea) | **Minimum bending radius** | 6 × OD |
| **Hydrostatic, tensile & crush duty** | Flex-Slippage Separator Tape — Non-sticking separator wrap preventing rubber penetration during vulcanization | **Hydrostatic pressure & water blocking** | Engineered for continuous submersion and hydrostatic integrity per MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding |
| **Seawater, oil & chemical resistance** | Resistant to seawater hydrolysis, hydraulic oils and abrasion per MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding | **RoHS & REACH compliance** | RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant |
| **Standards** | MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding | | |

## Sizes

3 standard constructions

**Tick the sizes you need** and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

| | Order designation | Configuration | Core / stranding | Outer Ø ≈ mm | Net weight ≈ kg/km | Tensile rating kN ≈ | Min. bend R mm |
|---|---|---|---|---|---|---|---|
| **MIL-C-915/21 (A-A-59609) & #1WC Construction Schedule (−40…+90 °C)** 3 sizes | | | | | | | |
| ☐ | **MIL-C-915 Config A (Compact)** | 4×2×24 AWG + 2×18 AWG (or 4C) | Stranded tinned Cu (IEC 60228 / ASTM) | 10.4 | 155 | 4.5 | 85 |
| ☐ | **MIL-C-915 Config B (Standard)** | 4×2×20 AWG + 4×16 AWG (or 8C) | Stranded tinned Cu (IEC 60228 / ASTM) | 13.3 | 265 | 9.6 | 110 |
| ☐ | **MIL-C-915 Config C (Heavy Hybrid)** | 8×2×20 AWG + 4×12 AWG (or 12C) | Stranded tinned Cu (IEC 60228 / ASTM) | 16.6 | 420 | 18.5 | 140 |

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding.

## Electrical, optical & thermal parameters

3 sizes

| Configuration | Max. DC $R_{20}$ / Atten. Ω/km or dB/km | Rating / Impedance | Operating temp. |
|---|---|---|---|
| 4×2×24 AWG + 2×18 AWG (or 4C) | 28.40 | 600 V (45–100 Ω data) | −40…+90 °C |
| 4×2×20 AWG + 4×16 AWG (or 8C) | 10.70 | 600 V (45–100 Ω data) | −40…+90 °C |
| 8×2×20 AWG + 4×12 AWG (or 12C) | 5.40 | 600 V (High-Power Hybrid) | −40…+90 °C |

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

## Standards and approvals

- MIL-C-915/21F Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

## Certifications

**Management systems:** ISO 9001, ISO 14001, ISO 45001

### Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
**+86 185 9591 3361**

Email
**info@tebaoflex.com**

Web
**tebaoflex.com/cables/mil-c-915-21-a-a-59609-1wc**

Typical values for this cable type, based on MIL-C-915/21F / CID A-A-59609 / AWS D3.6M Underwater Welding. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.