Belden



# Product: 7447WS

MachFlex™, 3+1G C #10 Str BC, PVC-NYL Ins, OA TC Brd, TPE Jkt, TPE Jkt, 1000V WTTC, 600V TC-ER

Request Sample

## Product Description

MachFlex™ for High Flex, 3+1G Conductor 10AWG (105x30) Bare Copper, PVC-NYL Insulation, Overall Tinned Copper Braid(85%) Shield, TPE Inner Jacket, TPE Outer Jacket, 1000V WTTC, 600V TC-ER

## Technical Specifications

### Product Overview

| | |
|---|---|
| Suitable Applications: | Robotics, Robot, Continuous Flex |

### Construction Details

**Conductor**

| Element | Size | Stranding | Material |
|---|---|---|---|
| | 10 | 105x30 | BC - Bare Copper |
| Ground Wire | 10 | 105x30 | BC - Bare Copper |

**Insulation**

| Material | Nom. Insulation Diameter | Color Code |
|---|---|---|
| PVC/Nylon - Polyvinyl Chloride + Nylon | 0.172 in (4.37 mm) | Black and Numbered 1, Black and Numbered 2, Black and Numbered 3, Green/Yellow |

**Outer Shield**

| Shield Type | Material | Coverage |
|---|---|---|
| Braid | Tinned Copper (TC) | 85% |

**Inner Jacket**

| Material | Nom. Thickness | Nom. Diameter |
|---|---|---|
| TPE - Thermoplastic Elastomer | 0.035 in (0.89 mm) | 0.49 in (12 mm) |

**Outer Jacket**

| Material | Nom. Thickness | Nom. Diameter |
|---|---|---|
| TPE - Thermoplastic Elastomer | 0.063 in (1.6 mm) | 0.644 in |

### Electrical Characteristics

**Electricals**

| Nom. Conductor DCR |
|---|
| 1 Ohm/1000ft (3.3 Ohm/km) |

**Voltage**

| UL Voltage Rating |
|---|
| 1000 V RMS, 600 V RMS |

### Mechanical Characteristics

**Temperature**

| UL Temperature |
|---|
| 75°C Dry, 90°C Wet |

**Bend Radius**

| Flexing Min. |
| --- |
| 6.5 in |

| | |
| --- | --- |
| Max. Pull Tension: | 546 lbs (248 kg) |
| Bulk Cable Weight: | 296 lbs/1000ft (440 kg/km) |

## Standards and Compliance

| | |
| --- | --- |
| Environmental Suitability: | Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | UL1685 UL Loading, 1202 |
| NEC / UL Compliance: | TC-ER, WTTC |
| AWM Compliance: | AWM 20328, AWM I/II A/B |
| CEC / C(UL) Compliance: | CIC, TC |
| European Directive Compliance: | EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

## History

| | |
| --- | --- |
| Update and Revision: | Revision Number: 0.306 Revision Date: 09-07-2025 |

## Part Numbers

**Variants**

| Item # | Color | Putup Type | Length | UPC | Footnote |
| --- | --- | --- | --- | --- | --- |
| 7447WS 060250 | Chrome | Reel | 250 ft | 612825186946 | C |
| 7447WS 0601000 | Chrome | Reel | 1,000 ft | 612825186939 | |
| 7447WS 0605000 | Chrome | Reel | 5,000 ft | 612825186953 | |

| | |
| --- | --- |
| Footnote: | C - CRATE REEL PUT-UP. |

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