Control & signal cable

TPE Bio-Oil & Washdown Control

TPE Bio-Oil and Washdown-Resistant Food & Beverage Control Cable

300/500 V -50 to +80 °C ECOLAB-tested TPE food/beverage washdown & bio-oil cable



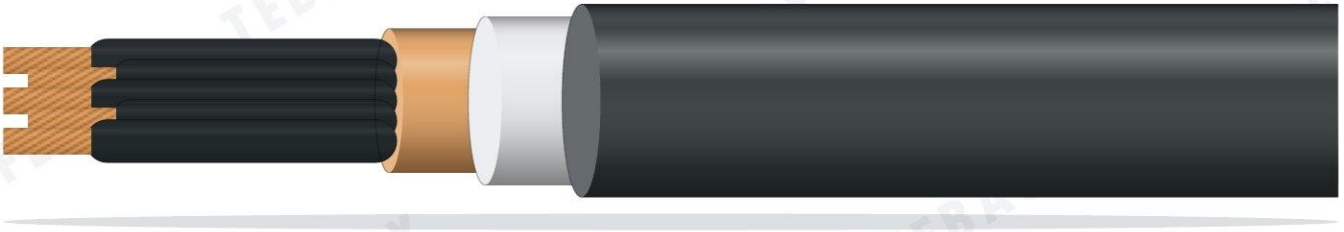
ECOLAB Washdown Certified | **300/500 V (4000 V Test)** | **210 Unscreened & 215C Screened**

Application

TPE Bio-Oil & Washdown Unscreened (unscreened) and 215C (Cu-braid screened) halogen-free food and beverage control cable (300/500 V, 4,000 V test, -50 to +80 °C) with PP/TPE core insulation and an ECOLAB-certified TPE jacket resistant to hot washdown and

Typical uses: Dairy, Cheese & Ice-Cream Processing Lines, Meat, Poultry & Seafood Packing Plants, Brewery, Winery & Beverage Bottling Washdown, Machine Tools with Bio-Ester Cutting Fluids, Car-Wash Portals & Agricultural Composting Plants

Construction





Cross-section, not to scale

1. Fine-stranded Class 5 copper
2. Modified PP/TPE core insulation
3. Bio-oil & washdown TPE outer jacket

Technical data

Typical values

Rated voltage U0/U	300/500 V AC	AC dielectric test voltage	4,000 V AC (core/core) · 2,000 V (core/screen)
Insulation resistance	≥ 20 GΩ·cm (≥ 200 MΩ·km) at +20 °C	Mutual capacitance	Approx. 70–90 nF/km (low-loss PP/TPE)
Fixed installation temp.	-50 °C to +80 °C (deep-freeze to washdown)	Occasional flexing temp.	-40 °C to +80 °C
Conductor stranding	IEC 60228 Class 5 fine-stranded copper	Min. bending radius (flexing)	15 × OD (210 unscreened) · 20 × OD (215C)
Min. bending radius (fixed)	4 × OD (210) · 6 × OD (215C)	Food & CIP chemical resistance	ECOLAB certified (acid/alkali foam & disinfectants)
Bio-oil & emulsion resistance	EN 60811-404 animal fats, plant oils & esters	Halogen-free & UV resistance	IEC 60754-1/2 halogen-free · ISO 4892-2 UV pass
Standards	DIN VDE 0250 / EN 50525-2-51		

Sizes

29 standard constructions

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

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard TPE Bio-Oil & Washdown Control configurations 29 sizes							
☐ TPE Bio-Oil & Washdown Control 3G0.5	3G0.5 mm²	Class 5 Cu (0.5 mm²)	0.90	5.80	14.4	50.7	87
☐ TPE Bio-Oil & Washdown Control 4G0.5	4G0.5 mm²	Class 5 Cu (0.5 mm²)	0.90	6.30	19.2	62.1	94
☐ TPE Bio-Oil & Washdown Control 5G0.5	5G0.5 mm²	Class 5 Cu (0.5 mm²)	0.90	6.80	24.0	73.9	102
☐ TPE Bio-Oil & Washdown Control 7G0.5	7G0.5 mm²	Class 5 Cu (0.5 mm²)	0.90	7.30	33.6	91.2	110
☐ TPE Bio-Oil & Washdown Control 12G0.5	12G0.5 mm²	Class 5 Cu (0.5 mm²)	1.10	9.90	57.6	163.5	148
☐ TPE Bio-Oil & Washdown Control 3G0.75	3G0.75 mm²	Class 5 Cu (0.75 mm²)	0.90	6.20	21.6	63.1	93
☐ TPE Bio-Oil & Washdown Control 4G0.75	4G0.75 mm²	Class 5 Cu (0.75 mm²)	0.90	6.80	28.8	78.7	102
☐ TPE Bio-Oil & Washdown Control 5G0.75	5G0.75 mm²	Class 5 Cu (0.75 mm²)	0.90	7.30	36.0	93.6	110
☐ TPE Bio-Oil & Washdown Control 7G0.75	7G0.75 mm²	Class 5 Cu (0.75 mm²)	0.90	8.00	50.4	119.5	120
☐ TPE Bio-Oil & Washdown Control 12G0.75	12G0.75 mm²	Class 5 Cu (0.75 mm²)	1.10	10.70	86.4	210.0	160
☐ TPE Bio-Oil & Washdown Control 18G0.75	18G0.75 mm²	Class 5 Cu (0.75 mm²)	1.10	12.50	129.6	298.4	188
☐ TPE Bio-Oil & Washdown Control 3G1	3G1 mm²	Class 5 Cu (1 mm²)	0.90	6.60	28.8	75.8	99
☐ TPE Bio-Oil & Washdown Control 4G1	4G1 mm²	Class 5 Cu (1 mm²)	0.90	7.20	38.4	94.4	108
☐ TPE Bio-Oil & Washdown Control 5G1	5G1 mm²	Class 5 Cu (1 mm²)	0.90	7.80	48.0	113.7	117
☐ TPE Bio-Oil & Washdown Control 7G1	7G1 mm²	Class 5 Cu (1 mm²)	0.90	8.50	67.2	145.2	128
☐ TPE Bio-Oil & Washdown Control 12G1	12G1 mm²	Class 5 Cu (1 mm²)	1.10	11.50	115.2	258.0	172
☐ TPE Bio-Oil & Washdown Control 18G1	18G1 mm²	Class 5 Cu (1 mm²)	1.10	13.40	172.8	366.7	201
☐ TPE Bio-Oil & Washdown Control 3G1.5	3G1.5 mm²	Class 5 Cu (1.5 mm²)	0.90	7.70	43.2	107.2	116
☐ TPE Bio-Oil & Washdown Control 4G1.5	4G1.5 mm²	Class 5 Cu (1.5 mm²)	0.90	8.40	57.6	133.8	126
☐ TPE Bio-Oil & Washdown Control 5G1.5	5G1.5 mm²	Class 5 Cu (1.5 mm²)	0.90	9.20	72.0	163.4	138
☐ TPE Bio-Oil & Washdown Control 7G1.5	7G1.5 mm²	Class 5 Cu (1.5 mm²)	0.90	10.00	100.8	208.8	150
☐ TPE Bio-Oil & Washdown Control 12G1.5	12G1.5 mm²	Class 5 Cu (1.5 mm²)	1.10	13.60	172.8	372.6	204
☐ TPE Bio-Oil & Washdown Control 18G1.5	18G1.5 mm²	Class 5 Cu (1.5 mm²)	1.10	15.90	259.2	532.2	238
☐ TPE Bio-Oil & Washdown Control 25G1.5	25G1.5 mm²	Class 5 Cu (1.5 mm²)	1.10	18.60	360.0	733.6	279
☐ TPE Bio-Oil & Washdown Control 3G2.5	3G2.5 mm²	Class 5 Cu (2.5 mm²)	0.90	8.70	72.0	153.7	130
☐ TPE Bio-Oil & Washdown Control 4G2.5	4G2.5 mm²	Class 5 Cu (2.5 mm²)	0.90	9.60	96.0	195.5	144
☐ TPE Bio-Oil & Washdown Control 5G2.5	5G2.5 mm²	Class 5 Cu (2.5 mm²)	0.90	10.50	120.0	239.1	158
☐ TPE Bio-Oil & Washdown Control 7G2.5	7G2.5 mm²	Class 5 Cu (2.5 mm²)	0.90	11.40	168.0	308.4	171
☐ TPE Bio-Oil & Washdown Control 4G4	4G4 mm²	Class 5 Cu (4 mm²)	0.90	11.90	153.6	306.5	178

– Outer diameters and weights are nominal engineering values for TPE Bio-Oil & Washdown Control subject to standard manufacturing tolerances per VDE 0250 / EN 50525 / ECOLAB Food & Beverage Washdown Control Specification.

Electrical & rating data

29 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test VAC rms
3G0.5 mm²	39.00	9.0	7.0	4,000
4G0.5 mm²	39.00	9.0	7.0	4,000
5G0.5 mm²	39.00	9.0	7.0	4,000
7G0.5 mm²	39.00	9.0	7.0	4,000
12G0.5 mm²	39.00	9.0	7.0	4,000
3G0.75 mm²	26.00	12.0	9.0	4,000
4G0.75 mm²	26.00	12.0	9.0	4,000
5G0.75 mm²	26.00	12.0	9.0	4,000
7G0.75 mm²	26.00	12.0	9.0	4,000
12G0.75 mm²	26.00	12.0	9.0	4,000
18G0.75 mm²	26.00	12.0	9.0	4,000
3G1 mm²	19.50	15.0	11.0	4,000
4G1 mm²	19.50	15.0	11.0	4,000
5G1 mm²	19.50	15.0	11.0	4,000
7G1 mm²	19.50	15.0	11.0	4,000
12G1 mm²	19.50	15.0	11.0	4,000
18G1 mm²	19.50	15.0	11.0	4,000
3G1.5 mm²	13.30	18.0	14.0	4,000
4G1.5 mm²	13.30	18.0	14.0	4,000
5G1.5 mm²	13.30	18.0	14.0	4,000
7G1.5 mm²	13.30	18.0	14.0	4,000
12G1.5 mm²	13.30	18.0	14.0	4,000
18G1.5 mm²	13.30	18.0	14.0	4,000
25G1.5 mm²	13.30	18.0	14.0	4,000
3G2.5 mm²	7.98	26.0	20.0	4,000
4G2.5 mm²	7.98	26.0	20.0	4,000
5G2.5 mm²	7.98	26.0	20.0	4,000
7G2.5 mm²	7.98	26.0	20.0	4,000
4G4 mm²	4.95	34.0	26.0	4,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per VDE 0250 / EN 50525 / ECOLAB Food & Beverage Washdown Control Specification.

Standards and approvals

- VDE 0250 / EN 50525 / ECOLAB Food & Beverage Washdown Control Specification
- CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- REACH SVHC Compliance Verified

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/tpe-sheathed-bio-oil-and-washdown-resistant-food-beverage-control-cable

Typical values for this cable type, based on VDE 0250 / EN 50525 / ECOLAB Food & Beverage Washdown Control Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.