



Control & signal cable

SABclean S 776 / S 780 C

Low-Outgassing Cleanroom Flexible

ISO 14644-1 Class 1 low-outgassing Class 6 TPE/PUR cleanroom drag-chain control cable



ISO 14644-1 Class 1 Cleanroom

S 776 & S 780 C Screened

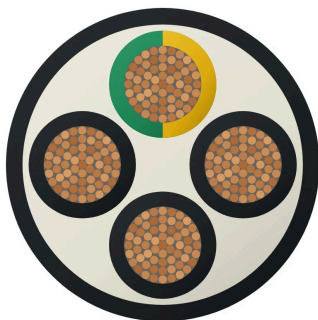
Class 6 Continuous Drag-Chain

Application

SABclean S 776 (unscreened) and S 780 C (screened) continuous-flex cleanroom control cable (300/500 V, -40 to +80 °C) for ISO 14644-1 Class 1 cleanrooms, featuring IEC 60228 Class 6 copper cores, TPE insulation, and a low-outgassing matte TPE/PUR jacket.

Typical uses: Semiconductor Wafer Handling & Robotics (ISO Class 1), Flat-Panel Display, OLED & Solar Cell Cleanrooms, Pharmaceutical Aseptic Filling & Biotech Automation, Optical, Laser & Precision Metrology Gantries, Battery Dry-Room & EV Cell Assembly

Construction



Cross-section, not to scale

- 1 Super-fine Class 6 copper
- 2 Low-outgassing TPE core wall
- 3 Talc-free fleece / inner sheath
- 4 Tinned copper braid (S 780 C only)
- 5 Low-outgassing matte TPE/PUR jacket

Technical data

Typical values

Rated voltage U0/U	300/500 V ($\geq 0.5 \text{ mm}^2$) · 300/300 V (0.14–0.34 mm^2)	AC dielectric test voltage	2,000 V AC ($\geq 0.5 \text{ mm}^2$) · 1,500 V AC ($\leq 0.34 \text{ mm}^2$)
EMC screen (S 780 C)	Braided tinned copper wire ($\geq 85 \%$ coverage)	Insulation resistance	$\geq 100 \text{ M}\Omega\cdot\text{km}$ at +20 °C
Continuous flexing temp.	-40 °C to +80 °C	Fixed installation temp.	-50 °C to +80 °C
Cleanroom particle class	ISO 14644-1 Air Cleanliness Class 1	Conductor stranding	IEC 60228 Class 6 super-fine copper
Min. bending radius (chain)	5 × OD (S 776) · 7.5 × OD (S 780 C)	Min. bending radius (fixed)	3 × OD (S 776) · 4 × OD (S 780 C)
Outgassing & LABS/PWIS	Ultra-low VOC/SVOC outgassing · LABS/PWIS-free	Halogen-free & oil resistance	IEC 60754-1/2 halogen-free · EN 60811-404 oil pass
Cleanroom disinfectant wipe	Resistant to IPA, H ₂ O ₂ & quaternary ammonium	Standards	ISO 14644-1 Class 1 & ISO 14644-14

Sizes

24 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 SABclean S 776 / S 780 C configurations 24 sizes							
☐ SABclean S 776 / S 780 C 4×0.25	4×0.25 mm ²	Class 6 Cu (0.25 mm ²)	1.25	6.30	32.3	75.2	44
☐ SABclean S 776 / S 780 C 8×0.25	8×0.25 mm ²	Class 6 Cu (0.25 mm ²)	1.25	7.70	46.9	110.9	54
☐ SABclean S 776 / S 780 C 12×0.25	12×0.25 mm ²	Class 6 Cu (0.25 mm ²)	1.45	9.40	62.6	158.0	66
☐ SABclean S 776 / S 780 C 18×0.25	18×0.25 mm ²	Class 6 Cu (0.25 mm ²)	1.45	10.70	81.7	205.3	75
☐ SABclean S 776 / S 780 C 4×0.34	4×0.34 mm ²	Class 6 Cu (0.34 mm ²)	1.25	6.60	36.8	83.8	46
☐ SABclean S 776 / S 780 C 8×0.34	8×0.34 mm ²	Class 6 Cu (0.34 mm ²)	1.25	8.10	55.3	126.2	57
☐ SABclean S 776 / S 780 C 12×0.34	12×0.34 mm ²	Class 6 Cu (0.34 mm ²)	1.45	9.90	74.8	180.7	69
☐ SABclean S 776 / S 780 C 3G0.5	3G0.5 mm ²	Class 6 Cu (0.5 mm ²)	1.25	6.50	37.8	83.4	46
☐ SABclean S 776 / S 780 C 4G0.5	4G0.5 mm ²	Class 6 Cu (0.5 mm ²)	1.25	7.00	44.4	97.3	49
☐ SABclean S 776 / S 780 C 7G0.5	7G0.5 mm ²	Class 6 Cu (0.5 mm ²)	1.25	8.00	62.4	131.5	56
☐ SABclean S 776 / S 780 C 12G0.5	12G0.5 mm ²	Class 6 Cu (0.5 mm ²)	1.45	10.60	95.8	217.1	74
☐ SABclean S 776 / S 780 C 18G0.5	18G0.5 mm ²	Class 6 Cu (0.5 mm ²)	1.45	12.10	130.0	288.1	85
☐ SABclean S 776 / S 780 C 3G0.75	3G0.75 mm ²	Class 6 Cu (0.75 mm ²)	1.25	6.90	46.4	97.8	48
☐ SABclean S 776 / S 780 C 4G0.75	4G0.75 mm ²	Class 6 Cu (0.75 mm ²)	1.25	7.50	55.8	116.6	52
☐ SABclean S 776 / S 780 C 7G0.75	7G0.75 mm ²	Class 6 Cu (0.75 mm ²)	1.25	8.70	81.7	163.4	61
☐ SABclean S 776 / S 780 C 12G0.75	12G0.75 mm ²	Class 6 Cu (0.75 mm ²)	1.45	11.40	127.4	267.8	80
☐ SABclean S 776 / S 780 C 18G0.75	18G0.75 mm ²	Class 6 Cu (0.75 mm ²)	1.45	13.20	177.1	365.3	92
☐ SABclean S 776 / S 780 C 3G1	3G1 mm ²	Class 6 Cu (1 mm ²)	1.25	7.30	55.1	112.7	51
☐ SABclean S 776 / S 780 C 4G1	4G1 mm ²	Class 6 Cu (1 mm ²)	1.25	7.90	66.8	134.2	55
☐ SABclean S 776 / S 780 C 7G1	7G1 mm ²	Class 6 Cu (1 mm ²)	1.25	9.20	100.3	191.7	64
☐ SABclean S 776 / S 780 C 12G1	12G1 mm ²	Class 6 Cu (1 mm ²)	1.45	12.20	159.1	319.8	85
☐ SABclean S 776 / S 780 C 4G1.5	4G1.5 mm ²	Class 6 Cu (1.5 mm ²)	1.25	9.10	90.4	179.8	64
☐ SABclean S 776 / S 780 C 7G1.5	7G1.5 mm ²	Class 6 Cu (1.5 mm ²)	1.25	10.70	139.3	262.9	75
☐ SABclean S 776 / S 780 C 12G1.5	12G1.5 mm ²	Class 6 Cu (1.5 mm ²)	1.45	14.30	224.3	445.1	100

– Outer diameters and weights are nominal engineering values for SABclean S 776 / S 780 C subject to standard manufacturing tolerances per ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification.

Electrical & rating data

24 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test V AC rms
4×0.25 mm ²	79.00	4.0	3.0	2,000
8×0.25 mm ²	79.00	4.0	3.0	2,000
12×0.25 mm ²	79.00	4.0	3.0	2,000
18×0.25 mm ²	79.00	4.0	3.0	2,000
4×0.34 mm ²	57.00	6.0	5.0	2,000
8×0.34 mm ²	57.00	6.0	5.0	2,000
12×0.34 mm ²	57.00	6.0	5.0	2,000
3G0.5 mm ²	39.00	9.0	7.0	2,000
4G0.5 mm ²	39.00	9.0	7.0	2,000
7G0.5 mm ²	39.00	9.0	7.0	2,000
12G0.5 mm ²	39.00	9.0	7.0	2,000
18G0.5 mm ²	39.00	9.0	7.0	2,000
3G0.75 mm ²	26.00	12.0	9.0	2,000
4G0.75 mm ²	26.00	12.0	9.0	2,000
7G0.75 mm ²	26.00	12.0	9.0	2,000
12G0.75 mm ²	26.00	12.0	9.0	2,000
18G0.75 mm ²	26.00	12.0	9.0	2,000
3G1 mm ²	19.50	15.0	11.0	2,000
4G1 mm ²	19.50	15.0	11.0	2,000
7G1 mm ²	19.50	15.0	11.0	2,000
12G1 mm ²	19.50	15.0	11.0	2,000
4G1.5 mm ²	13.30	18.0	14.0	2,000
7G1.5 mm ²	13.30	18.0	14.0	2,000
12G1.5 mm ²	13.30	18.0	14.0	2,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification.

Standards and approvals

- ✓ ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain 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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/sabclean-s-776-s-780-c-low-outgassing-cleanroom-flexible-control-cable



Typical values for this cable type, based on ISO 14644-1 Air Cleanliness Class 1 / DIN VDE 0250 Cleanroom Drag-Chain Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.