



Mining trailing & reeling cables

BS 6708 Type 506 / 512 / 518 / 524 (320/550 V)

BS 6708 Type 506, 512, 518 & 524 Control Cable (320/550 V)

320/550 V individually screened multi-core pliable-armoured control cable (6–24 cores)



BS 6708 Type 506 / 512 / 518 / 524

320/550 V · 6 to 24 Cores

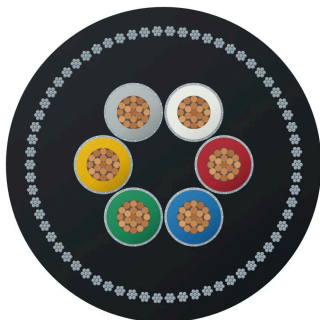
Individually Screened + Pliable Armour

Application

BS 6708 Type 506 ($6 \times 1.34 \text{ mm}^2$), 512 ($12 \times 1.34 \text{ mm}^2$), 518 ($18 \times 1.34 \text{ mm}^2$) and 524 ($24 \times 0.93 \text{ mm}^2$) pliable-armoured 320/550 V mining control cables with copper/nylon braided core screens, 7/0.45 mm pliable steel armour and PCP sheath.

Typical uses: Longwall roof support & AFC control, Multi-segment mining machine harnesses, Gate-end pilot & emergency-stop interlocks, Roadheader & continuous miner telemetry, Deep gassy & dusty coal mine control trunks, Surface quarry crusher & conveyor interlocking

Construction



Cross-section, not to scale

1	Control conductors (6, 12, 18 or 24)	IEC 60228 Class 5
2	Control core insulation	BS 6708
3	Individual composite copper / nylon screen	BS 6708
4	Rubber inner bedding sheath	BS 6708
5	Pliable galvanised steel wire armour	BS 6708
6	Heavy-duty chloroprene outer sheath	BS 6708

Technical data

Typical values

Rated voltage U0/U	320/550 V AC · 1.5 kV routine AC test voltage	Current rating (25 °C)	16 A (Type 506: 6×1.34) · 13 A (Type 512: 12×1.34) · 11 A (Type 518: 18×1.34) · 8 A (Type 524: 24×0.93)
Conductor & screen DC resistance	Conductors: 15.4 Ω/km (1.34 mm ²) / 22.1 Ω/km (0.93 mm ²) · 3 screens in parallel: 37.3 Ω/km (506/512/518) / 44.7 Ω/km (524)	Armour DC resistance (20 °C)	5.40 Ω/km (Types 506 & 512) · 4.76 Ω/km (Type 518) · 4.50 Ω/km (Type 524)
Ambient temperature range	−25 °C to +85 °C	Max. conductor temperature	+90 °C continuous EPR/TPE operating temperature
Min. bending radius	236 mm (Types 506 & 512) · 253 mm (Type 518) · 267 mm (Type 524) (10 × max OD)	Pliable armour & sheaths	Rubber inner sheath (1.5–3.5 mm) + 7/0.45 mm pliable galvanised steel wire armour + 1.8 mm heavy-duty chloroprene outer sheath
Crush & impact protection	7/0.45 mm pliable galvanised steel wire armour between rubber sheaths resists rockfall and crush	Flame, oil & gas environment	Heavy-duty chloroprene (PCP) jacket for deep underground mines with explosive gases and coal dust
Standards	BS 6708 (Part 5 pliable-armoured multi-core control cables)		

Sizes

4 standard constructions

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

Designation BS 6708 Type	Cores No.	Core CSA mm ²	Stranding n/mm	Cond. Ø mm	Insul. mm	Inner wall mm	Inner min Ø mm	Inner max Ø mm	Armour n/mm	Outer wall mm	Min. OD mm	Max. OD mm	Min. bend mm	Cu mass kg/km	Mass ≈ kg/km
☐ Type 506 · 6 × 1.34 mm ²	6	1.34	19/0.30	1.60	0.4	3.5	14.8	16.8	7/0.45	1.8	22.1	23.6	236	150	1,020
☐ Type 512 · 12 × 1.34 mm ²	12	1.34	19/0.30	1.60	0.4	1.8	14.8	16.8	7/0.45	1.8	22.1	23.6	236	300	1,200
☐ Type 518 · 18 × 1.34 mm ²	18	1.34	19/0.30	1.60	0.4	1.5	16.5	18.5	7/0.45	1.8	22.8	25.3	253	450	1,400
☐ Type 524 · 24 × 0.93 mm ²	24	0.93	19/0.25	1.30	0.4	1.5	17.9	19.9	7/0.45	1.8	24.2	26.7	267	450	1,600

- BS 6708 Part 5 control cable numbers encode the core count in the last two digits: Type 506 = 6×1.34 mm², Type 512 = 12×1.34 mm², Type 518 = 18×1.34 mm², Type 524 = 24×0.93 mm².
- Type 506 uses a thicker 3.5 mm inner sheath so its inner sheath diameter (14.8–16.8 mm) and overall OD (22.1–23.6 mm) match Type 512, allowing shared flameproof gland hardware.

Electrical parameters

4 sizes

Designation BS 6708 Type	Current rating A (25 °C)	Cond. DC 20 °C Ω/km	Armour DC 20 °C Ω/km	3 screens par. Ω/km	1-ph / DC V-drop mV/A/m	3-ph V-drop mV/A/m
Type 506 · 6 × 1.34 mm ²	16	15.4	5.40	37.3	34	30
Type 512 · 12 × 1.34 mm ²	13	15.4	5.40	37.3	34	30
Type 518 · 18 × 1.34 mm ²	11	15.4	4.76	37.3	34	30
Type 524 · 24 × 0.93 mm ²	8	22.1	4.50	44.7	50	43

– All individual tinned-copper/nylon core screens are laid up in contact with each other inside the rubber inner sheath.

Standards and approvals

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/bs-6708-type-506-512-518-524-control-cable



Typical values for this cable type, based on BS 6708 · IEC 60228 Class 5. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.