## Type 631 Flexible Trailing Cables with Galvanised Steel Pliable Wire Armouring

3800/6600 volt in accordance with BS 6708:1998 For use as mine roadway extension cables and mechanically protected trailing cables in quarries. BCS 504 refers


| Item | Description | Details |
| :---: | :--- | :--- |
| 1 | Phase conductor | (3 off) TAC flex conductors |
| 2 | Phase insulation | Semi-con, extruded MEPR black |
| 3 | Phase identification | Proofed tape - red, yellow, brown |
| $4^{*}$ | Phase core screen | Composite copper/nylon braid |
| 5 | Earth conductor | (1 off) TAC flex conductor |
| 6 | Earth insulation | Semi-con. Tape extruded MEPR black |
| 7 | Earth identification | Proofed tape - green, yellow <br> 3 power cores + 1 earth core laid up <br> around an elastomeric centre |
| 9 | Lay up | Bedding sheath |
| 10 | Pliable armour | Extruded PCP black |
| 11 | Overall sheath | Galvanised steel wires |

## Description

Flexible tinned annealed copper (TAC) conductors, semicon/MEPR insulated, 3 copper/nylon screened power cores, plus 1 unscreened earth core, laid up around a PCP centre, elastomeric bedding sheathed, pliable galvanised steel wire armoured and sheathed overall with a heavy duty flame retardant elastomeric compound.



## Type 631 Trailing Cable

TECHNICAL DETAILS

| Phase Conductor |  |  |  |
| :---: | :---: | :---: | :---: |
| Number and CSA | $\mathrm{mm}^{2}$ | $3 \times 50 \mathrm{~mm}^{2}$ | $3 \times 70 \mathrm{~mm}^{2}$ |
| Nominal diameter over insulation and tape | mm | 20.45 | 22.45 |
| Nominal diameter over copper/nylon screen | mm | 22.45 | 24.45 |
| Earth Conductor |  |  |  |
| Number and CSA | $\mathrm{mm}^{2}$ | $1 \times 35 \mathrm{~mm}^{2}$ | $1 \times 50 \mathrm{~mm}^{2}$ |
| Nominal diameter over insulation and tape | mm | 22.45 | 24.45 |
| Cable Details |  |  |  |
| Diameter over inner sheath - minimum | mm | 65.40 | 70.50 |
| Diameter over inner sheath - maximum | mm | 69.20 | 74.30 |
| Overall diameter - minimum | mm | 86.70 | 92.80 |
| Overall diameter - maximum | mm | 91.00 | 97.10 |
| Minimum bending radius | mm | 910 | 970 |
| Maximum pulling tension | kgf | 1110 | 1560 |
| Approximate cable weight | kg/km | 13400 | 15400 |
| Electrical Details |  |  |  |
| Continuous current rating at $25^{\circ} \mathrm{C}$ ambient | Amps | 170 | 205 |
| Maximum d.c. resistance at $20^{\circ} \mathrm{C}$ : |  |  |  |
| - Power conductor | ת/km | 0.393 | 0.277 |
| - Earth conductor | $\Omega / \mathrm{km}$ | 0.565 | 0.393 |
| - Screens in parallel | ת/km | 0.400 | 0.400 |
| - Armour | n/km | 0.450 | 0.420 |
| Nominal reactance at 50 Hz | n/km | 0.131 | 0.124 |
| Nominal reactance at 60 Hz | ת/km | 0.157 | 0.148 |
| Minimum insulation resistance of power cores at $20^{\circ} \mathrm{C}$ | M $2 / \mathrm{km}$ | 1400 | 1200 |

