



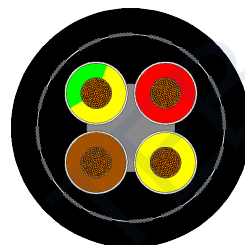
TEBAOFLEX CABLE

## DATA SHEET

Mining&Industrial cable

### BS 6708 TYPE 20 / TYPE 21 640/1100 V CABLE

Power supply cable with galvanized steel armouring



TYPE 21

#### APPLICATION

Used for supplying excavating and crushing machines and equipment in deep mines or surface environments where explosive gases and dust can accumulate.

#### CONSTRUCTION

| Parameter    | Value                                                                                             |
|--------------|---------------------------------------------------------------------------------------------------|
| Conductor    | Electrolytic stranded tinned copper wire, IEC 60228 Class 5                                       |
| Insulation   | EPR insulation                                                                                    |
| Lay-up       | Three or four unscreened cores laid up around an elastomeric cradle without contacting each other |
| Bedding      | Rubber based bedding compound                                                                     |
| Armour       | Galvanized steel pliable armour between inner and outer sheaths                                   |
| Outer sheath | Heavy duty chloroprene outer sheath                                                               |

#### CABLE CHARACTERISTICS

| Parameter     | Value                                                                 |
|---------------|-----------------------------------------------------------------------|
| Standard      | BS 6708                                                               |
| Rated voltage | 640/1100 V                                                            |
| Test voltage  | 3 kV                                                                  |
| Type 20       | Three-core unscreened power supply cable with pliable steel armouring |
| Type 21       | Four-core unscreened power supply cable with pliable steel armouring  |

## TECHNICAL DATA

Complete nominal dimensional data. Source ordering codes have been omitted.

| TYPE 20 CORE DIMENSIONS |              |               |                  |
|-------------------------|--------------|---------------|------------------|
| Nominal cross section   | Stranding mm | Cond. dia. mm | Insul. thick. mm |
| 3x2.5                   | 50/0.25      | 2.10          | 1.4              |
| 3x4                     | 56/0.30      | 2.70          | 1.4              |
| 3x6                     | 84/0.30      | 3.30          | 1.5              |
| 3x10                    | 80/0.40      | 4.40          | 1.5              |
| 3x16                    | 126/0.40     | 5.50          | 1.5              |
| 3x25                    | 196/0.40     | 7.10          | 1.6              |
| 3x35                    | 276/0.40     | 8.40          | 1.6              |
| 3x50                    | 396/0.40     | 10.10         | 1.7              |
| 3x70                    | 360/0.50     | 11.90         | 1.8              |
| 3x95                    | 475/0.50     | 13.90         | 2.0              |
| 3x120                   | 629/0.50     | 15.80         | 2.2              |
| 3x150                   | 740/0.50     | 17.00         | 2.3              |

| TYPE 21 CORE DIMENSIONS |              |               |                  |
|-------------------------|--------------|---------------|------------------|
| Nominal cross section   | Stranding mm | Cond. dia. mm | Insul. thick. mm |
| 4x2.5                   | 50/0.25      | 2.10          | 1.4              |
| 4x4                     | 56/0.30      | 2.70          | 1.4              |
| 4x6                     | 84/0.30      | 3.30          | 1.5              |
| 4x10                    | 80/0.40      | 4.40          | 1.5              |
| 4x16                    | 126/0.40     | 5.50          | 1.5              |
| 4x25                    | 196/0.40     | 7.10          | 1.6              |
| 4x35                    | 276/0.40     | 8.40          | 1.6              |
| 4x50                    | 396/0.40     | 10.10         | 1.7              |
| 4x70                    | 360/0.50     | 11.90         | 1.8              |
| 4x95                    | 475/0.50     | 13.90         | 2.0              |
| 4x120                   | 629/0.50     | 15.80         | 2.2              |
| 4x150                   | 740/0.50     | 17.00         | 2.3              |

## TECHNICAL DATA

Complete nominal dimensional data. Source ordering codes have been omitted.

| TYPE 20 CABLE DETAILS |                               |                |                        |            |                     |                      |                     |
|-----------------------|-------------------------------|----------------|------------------------|------------|---------------------|----------------------|---------------------|
| Nominal cross section | Inner sheath radial thick. mm | Armour size mm | Outer sheath thick. mm | Max. OD mm | Min. bend radius mm | Approx. weight kg/km | Copper weight kg/km |
| 3x2.5                 | 2.0                           | 7/0.45         | 2.5                    | 26.9       | 243                 | 990                  | 72                  |
| 3x4                   | 2.0                           | 7/0.45         | 2.5                    | 28.2       | 254                 | 1150                 | 115                 |
| 3x6                   | 2.5                           | 7/0.71         | 3.8                    | 36.5       | 329                 | 2000                 | 173                 |
| 3x10                  | 2.5                           | 7/0.71         | 3.8                    | 38.4       | 346                 | 2350                 | 288                 |
| 3x16                  | 2.5                           | 7/0.71         | 3.8                    | 40.8       | 368                 | 2750                 | 461                 |
| 3x25                  | 2.5                           | 7/0.90         | 4.0                    | 47.0       | 423                 | 3350                 | 720                 |
| 3x35                  | 2.5                           | 7/0.90         | 4.3                    | 50.6       | 456                 | 4300                 | 1008                |
| 3x50                  | 2.5                           | 7/0.90         | 4.7                    | 56.7       | 511                 | 5320                 | 1440                |
| 3x70                  | 2.5                           | 7/0.90         | 5.2                    | 62.7       | 565                 | 6750                 | 2016                |
| 3x95                  | 3.8                           | 7/0.90         | 5.8                    | 72.1       | 649                 | 8750                 | 2736                |
| 3x120                 | 3.8                           | 7/0.90         | 6.2                    | 77.0       | 693                 | 10650                | 3456                |
| 3x150                 | 5.0                           | 7/1.25         | 6.6                    | 87.3       | 786                 | 12500                | 4320                |

| TYPE 20 ELECTRICAL DETAILS |                              |                                           |                                   |
|----------------------------|------------------------------|-------------------------------------------|-----------------------------------|
| Nominal cross section      | Current rating at 25 deg C A | Phase and earth conductors DC res. ohm/km | Armour DC res. at 20 deg C ohm/km |
| 3x2.5                      | 28                           | 8.21                                      | 4.6                               |
| 3x4                        | 37                           | 5.09                                      | 4.2                               |
| 3x6                        | 46                           | 3.39                                      | 2.2                               |
| 3x10                       | 63                           | 1.95                                      | 2.0                               |
| 3x16                       | 85                           | 1.24                                      | 1.9                               |
| 3x25                       | 110                          | 0.795                                     | 1.3                               |
| 3x35                       | 135                          | 0.565                                     | 1.2                               |
| 3x50                       | 170                          | 0.393                                     | 1.1                               |
| 3x70                       | 205                          | 0.277                                     | 0.94                              |
| 3x95                       | 250                          | 0.210                                     | 0.80                              |
| 3x120                      | 295                          | 0.164                                     | 0.74                              |
| 3x150                      | 320                          | 0.132                                     | 0.45                              |

## TECHNICAL DATA

Complete nominal dimensional data. Source ordering codes have been omitted.

| TYPE 21 CABLE DETAILS |                               |                |                        |            |                     |                      |                     |
|-----------------------|-------------------------------|----------------|------------------------|------------|---------------------|----------------------|---------------------|
| Nominal cross section | Inner sheath radial thick. mm | Armour size mm | Outer sheath thick. mm | Max. OD mm | Min. bend radius mm | Approx. weight kg/km | Copper weight kg/km |
| 4x2.5                 | 2.0                           | 7/0.45         | 2.5                    | 28.6       | 258                 | 1150                 | 96                  |
| 4x4                   | 2.0                           | 7/0.45         | 2.5                    | 30.1       | 271                 | 1320                 | 154                 |
| 4x6                   | 2.5                           | 7/0.71         | 3.8                    | 38.8       | 350                 | 2350                 | 230                 |
| 4x10                  | 2.5                           | 7/0.71         | 3.8                    | 41.0       | 369                 | 2740                 | 384                 |
| 4x16                  | 2.5                           | 7/0.71         | 3.9                    | 44.0       | 396                 | 3170                 | 614                 |
| 4x25                  | 2.5                           | 7/0.90         | 4.3                    | 49.8       | 449                 | 4030                 | 960                 |
| 4x35                  | 2.5                           | 7/0.90         | 4.7                    | 56.1       | 505                 | 5220                 | 1344                |
| 4x50                  | 2.5                           | 7/0.90         | 5.1                    | 61.8       | 557                 | 6400                 | 1920                |
| 4x70                  | 2.5                           | 7/0.90         | 5.7                    | 71.4       | 643                 | 8060                 | 2688                |
| 4x95                  | 3.8                           | 7/0.90         | 6.3                    | 78.6       | 708                 | 10650                | 3648                |
| 4x120                 | 3.8                           | 7/0.90         | 6.8                    | 89.0       | 801                 | 13450                | 4608                |
| 4x150                 | 5.0                           | 7/1.25         | 7.3                    | 95.3       | 858                 | 15300                | 5760                |

| TYPE 21 ELECTRICAL DETAILS |                              |                                           |                                   |
|----------------------------|------------------------------|-------------------------------------------|-----------------------------------|
| Nominal cross section      | Current rating at 25 deg C A | Phase and earth conductors DC res. ohm/km | Armour DC res. at 20 deg C ohm/km |
| 4x2.5                      | 28                           | 8.21                                      | 4.2                               |
| 4x4                        | 37                           | 5.09                                      | 3.9                               |
| 4x6                        | 46                           | 3.39                                      | 2.0                               |
| 4x10                       | 63                           | 1.95                                      | 1.9                               |
| 4x16                       | 85                           | 1.24                                      | 1.7                               |
| 4x25                       | 110                          | 0.795                                     | 1.5                               |
| 4x35                       | 135                          | 0.565                                     | 1.1                               |
| 4x50                       | 170                          | 0.393                                     | 0.96                              |
| 4x70                       | 205                          | 0.277                                     | 0.80                              |
| 4x95                       | 250                          | 0.210                                     | 0.73                              |
| 4x120                      | 295                          | 0.164                                     | 0.47                              |
| 4x150                      | 320                          | 0.132                                     | 0.41                              |

### NOTES

Nominal values are for cable selection. Actual cable dimensions may vary due to manufacturing tolerances.

### CERTIFICATIONS



TEBAOFLEX CABLE