

# Cable Protection System

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## Helawrap HWPP / HWPA-V0

### Features and Benefits

Helawrap is the ideal solution for bundling and protecting cables and wires in industrial as well as in home or office environments. Thanks to its special profile and handy applicator tool, Helawrap can be applied rapidly and effortlessly.

The unique design allows the user to branch off cable at any point along the cover with ease. Helawrap can also be removed and re-applied as often as required.

Helawrap is available in several colours, a large range of sizes covering most standard applications and in two durable materials.

### Application

Helawrap is used to bundle and protect cable and wires in the electrical industry, panel building as well as machine, automotive and truck manufacturing. Helawrap in 25 metre lengths is the time-saving solution for industrial applications.

Due to its excellent flame-retardant properties, Helawrap Polyamide 6 V0 is the product of choice wherever fire protection is essential, for example in mass transit.

Helawrap in practical 2 metre lengths is designed for domestic and office use. It puts an end to the cable chaos associated with PCs, TVs and Hi-Fi systems.



Choice of colours for various home and office environments.



Insert one or more cables into the insertion slot of the applicator tool.



Place the applicator tool in one end of the Helawrap cable cover.



Simply slide the applicator tool through the Helawrap cover.



Applicator tools HAT are available for every Helawrap cover size.

Technical Table

| Code                    | Colour      | Bundle Ø max. | Wall (WT) | Application Tool |
|-------------------------|-------------|---------------|-----------|------------------|
| <b>HWPP 2 m lengths</b> |             |               |           |                  |
| H16B                    | Black (BK)  | 15.0          | 0.85      | HAT16            |
| H16S                    | Silver (SR) | 15.0          | 0.85      | HAT16            |
| H20B                    | Black (BK)  | 20.0          | 0.95      | HAT20            |
| H20S                    | Silver (SR) | 20.0          | 0.95      | HAT20            |
| H25B                    | Black (BK)  | 25.0          | 1.05      | HAT25            |
| H25S                    | Silver (SR) | 25.0          | 1.05      | HAT25            |
| <b>HWPP 5 m lengths</b> |             |               |           |                  |
| H16B5M                  | Black (BK)  | 15.0          | 0.85      | HAT16            |
| H16S5M                  | Silver (SR) | 15.0          | 0.85      | HAT16            |
| H20B5M                  | Black (BK)  | 20.0          | 0.95      | HAT20            |
| H20S5M                  | Silver (SR) | 20.0          | 0.95      | HAT20            |
| H25B5M                  | Black (BK)  | 25.0          | 1.05      | HAT25            |
| H25S5M                  | Silver (SR) | 25.0          | 1.05      | HAT25            |

All dimensions in mm. Subject to technical changes.

Available in South Africa. 2m lengths complete with applicator

Applicator tools available separately

## Spiral Binding - NFP

### Features and Benefits

Spiral Binding is a general purpose solution for many bundling applications. It is used for organising and protecting cables and hoses. Spiral binding is available in a wide range of diameters, colours and materials. Flame retardant polyethylene (FRP), PA6 (N), PTFE (P) versions provide protection against fire, abrasion, chemical attack and elevated temperature - please refer to material data tables.

Due to the spiral structure, it can be applied to cables or hoses in its original place. Furthermore, cables can branch out at any point and in any direction.


### Application

Spiral binding is used to route and bind cables that need high mechanical protection, for instance in the automobile industry as well as in control panels and cabinets. It is also used in electrical installation, where safety is a primary consideration. Spiral binding provides a tidy solution for many applications.



Spiral binding.

#### Material Data NFP

|      |   |  |
|------|---|--|
| RoHS | Material  | Polyethylene (PE)                                |
|      | Operating Temperature   | -40°C to +90°C Continuous,<br>(+120°C for 200 h) |
|      | Flammability  | Halogen free                                     |
|      |  |  |

#### Technical Table

| Code          | Ø D  | Wall (WT) | Pitch (P) | Material | Colour       | Pack Cont. (m) |
|---------------|------|-----------|-----------|----------|--------------|----------------|
| <b>NFP-PE</b> |      |           |           |          |              |                |
| *1NFP         | 1.6  | 0.8       | 6.0       | PE       | Black (BK)   | 30             |
| *1NFP         | 1.6  | 0.8       | 6.0       | PE       | Natural (NT) | 30             |
| *2NFP         | 4.1  | 1.0       | 9.5       | PE       | Black (BK)   | 30             |
| *2NFP         | 4.1  | 1.0       | 9.5       | PE       | Natural (NT) | 30             |
| *3NFP         | 9.6  | 1.2       | 13.5      | PE       | Black (BK)   | 30             |
| *3NFP         | 9.6  | 1.2       | 13.5      | PE       | Natural (NT) | 30             |
| <b>N-PA6</b>  |      |           |           |          |              |                |
| 1N            | 2.0  | 0.3       | 4.2       | PA6      | Natural (NT) | 3              |
| 2N            | 5.1  | 0.6       | 9.5       | PA6      | Natural (NT) | 3              |
| 3N            | 11.1 | 0.8       | 11.5      | PA6      | Natural (NT) | 3              |

All dimensions in mm. Subject to technical changes.

\*Available in South Africa

## Helagaine HEGPA66 Braided Sleeving

### Features and Benefits

The thread diameter of the Polyamide 6.6 is approximately 10% larger than that of Polyester. This results in tougher sleeving with excellent resistance to abrasion. Despite its toughness, Helagaine HEGPA66 can be easily applied even over very irregular shapes.

### Application

Helagaine HEGPA66 is particularly suitable for vehicle manufacturing as well as plant construction.

### Application Method

Fraying of the braided sleeving can be avoided by using a hot-knife to cut the sleeving. Braided sleeving can also be supplied in pre-cut lengths on request.

Technical Table

| Code    | Bundle<br>Ø min. | Bundle<br>Ø max. | Colour     | Reel<br>Length |
|---------|------------------|------------------|------------|----------------|
| MEGA503 | 2                | 4                | Black (BK) | 200 m          |
| MEGA504 | 3                | 6                | Black (BK) | 200 m          |
| MEGA505 | 3                | 7                | Black (BK) | 200 m          |
| MEGA506 | 4                | 8                | Black (BK) | 100 m          |
| MEGA508 | 5                | 10               | Black (BK) | 100 m          |
| MEGA510 | 7                | 12               | Black (BK) | 100 m          |
| MEGA512 | 8                | 14               | Black (BK) | 100 m          |
| MEGA516 | 12               | 18               | Black (BK) | 50 m           |
| MEGA520 | 15               | 23               | Black (BK) | 50 m           |
| MEGA525 | 18               | 28               | Black (BK) | 50 m           |
| MEGA530 | 25               | 32               | Black (BK) | 50 m           |
| MEGA540 | 30               | 44               | Black (BK) | 50 m           |
| MEGA550 | 40               | 55               | Black (BK) | 50 m           |
| MEGA560 | 50               | 65               | Black (BK) | 50 m           |

All dimensions in mm. Subject to technical changes.

Grey available on request



Various types of Helagaine braided sleeving.

### Material Data

|      |                        |   |
|------|------------------------|---|
| RoHS | Material               | Polyamide 6.6 (PA66)                    |
|      | Operating Temperature  | -60°C to +150°C,<br>Intermittent +200°C |
|      | Melting Point (Metric) | +255°C                                  |
|      | Braid Density          | ca. 85%                                 |
|      | Flammability           | UL94 V2                                 |
|      |                        |   |



The HSG0 hot cutting tool prevents the braided sleeving from fraying.

## Helagaine SAS Braided Sleeving

### Features and Benefits

Its special yarn structure gives Helagaine SAS braided polyester sleeving outstanding noise reduction characteristics. Due to its excellent surface coverage and high abrasion resistance, Helagaine SAS is especially suitable for mechanical protection of cables. Helagaine SAS can be expanded to 3 times its original diameter and fits easily over irregular shapes.

### Application

Helagaine SAS is used primarily in the automotive sector and wherever noise due to vibration must be reduced. Helagaine can be supplied in pre-cut lengths on request.

Technical Table

| Code     | Bundle<br>Ø min. | Bundle<br>Ø max. | Reel<br>Length |
|----------|------------------|------------------|----------------|
| HEGSAS04 | 2                | 6                | 200 m          |
| HEGSAS06 | 4                | 11               | 200 m          |
| HEGSAS09 | 6                | 16               | 100 m          |
| HEGSAS12 | 8                | 20               | 100 m          |
| HEGSAS15 | 10               | 24               | 50 m           |
| HEGSAS20 | 13               | 30               | 50 m           |
| HEGSAS30 | 20               | 40               | 25 m           |
| HEGSAS40 | 30               | 50               | 25 m           |

All dimensions in mm. Subject to technical changes.



*With its special yarn structure, Helagaine SAS is very effective in reducing vibration noise.*

#### Material Data

|      |                        |                  |
|------|------------------------|------------------|
| RoHS | Material               | Polyester (PET)  |
|      | Colour                 | Black (BK)       |
|      | Operating Temperature  | -50°C to +150°C  |
|      | Melting Point (Metric) | ca. +260°C       |
|      | Flammability           | FMVSS 302 Type B |
|      |                        |                  |

**HELAHOOK****Re-Sealable Protective Slewing****Features and Benefits**

HELAHOOK is a lightweight, abrasion resistant and re-sealable protective slewing. Due to its hook-and-loop sealing system, HELAHOOK can be used to protect cables and hoses that are already fixed. It adapts to very irregular shapes and sizes. It permits quick and easy access to enclosed components and can be used repeatedly. It is therefore a sensible alternative to braided slewing and corrugated tubing for many common applications.

HELAHOOK has good fire-protection properties. It complies with the standard NF F 16-101, Class F1 for smoke emission and gas toxicity and meets UL94 V2.

**Application**

HELAHOOK is used in industrial machines, electrical appliances, shipbuilding, railway vehicles and in the aerospace industry. HELAHOOK is also employed in automobiles or commercial vehicles. It is the ideal solution for post-termination cable organisation and wherever repeated use is a necessity.



*HELAHOOK protective slewing allows for retrospective fitting and repeated use.*



*HELAHOOK provides excellent abrasion resistance.*

**Material Data**

|             |                       |                    |
|-------------|-----------------------|--------------------|
| <b>RoHS</b> | Material              | Polyester (PET)    |
|             | Colour                | -Black (BK)        |
|             | Operating Temperature | -50°C to +150°C    |
|             | Flammability          | UL94 V2, FMVSS 302 |

**Technical Table**

| Code        | Bundle Ø min. | Bundle Ø max. | Reel Length (m) |
|-------------|---------------|---------------|-----------------|
| Helahook 10 | 3             | 15            | 25              |
| Helahook 15 | 10            | 20            | 25              |
| Helahook 20 | 15            | 30            | 25              |
| Helahook 25 | 20            | 40            | 25              |
| Helahook 30 | 25            | 50            | 25              |

All dimensions in mm. Subject to technical changes.  
Cuts in any lengths are available on request.

## PVC Tubing

### Features and Benefits

A thin wall section makes P sleeving ideal for minimising the overall diameter of loom assemblies.

### Application

These high-grade PVC sleeves (P) have a thin wall that makes them ideal for insulating wire in areas where space is at a premium. They can be supplied as continuous tubing or cut lengths. The tubing is available in international resistor colour code, pink and transparent.



Helvin P tubing.

Technical Table

| Code  | Supplied<br>Ø D | Wall (WT)<br>nom. |
|-------|-----------------|-------------------|
| PVC1  | 1               | 1.0               |
| PVC2  | 2               | 1.0               |
| PVC3  | 3               | 1.0               |
| PVC4  | 4               | 1.0               |
| PVC5  | 5               | 1.0               |
| PVC6  | 6               | 1.0               |
| PVC8  | 8               | 1.0               |
| PVC10 | 10              | 1.0               |
| PVC12 | 12              | 1.0               |
| PVC13 | 13              | 1.0               |
| PVC14 | 14              | 1.0               |
| PVC16 | 16              | 1.0               |
| PVC18 | 18              | 1.0               |
| PVC19 | 19              | 1.0               |
| PVC20 | 20              | 1.0               |
| PVC22 | 22              | 1.0               |
| PVC23 | 23              | 1.0               |
| PVC24 | 24              | 1.0               |
| PVC25 | 25              | 1.0               |
| PVC30 | 30              | 1.0               |
| PVC35 | 35              | 1.0               |

All dimensions in mm. Subject to technical changes.

Std Pack Sizes: 1-20 mm ID = 100 m rolls, 22-35 mm ID = 50 m rolls

Min Order Qty: As per standard Pack of 500 mm, except black sizes 2, 4, 6, 8 and 10 mm

Standard Colour - Black. Other colours on request.



Material Data

|      |                       |  |
|------|-----------------------|--|
| RoHS | Material              | PVC (Polyvinylchloride)                                    |
|      | Operating Temperature | -65°C to +105°C, Intermittent +135°C                       |
|      | Flammability          | UL94 V0 at 1mm thickness, Self extinguishing               |
|      | Specification         | UL224, BS 3858 Type 3, IEC 684-3-101 / 104, DEF STAN 59-15 |



Please Note for Product Specific Approvals please refer to Appendix.

## Convuluted Tubing

### Medium Duty (High Impact)

The tubing is manufactured from high impact, flexible, UV stable PVC material affording a durable, crush resistant product meeting the requirements of the relevant sections of SABS IEC 60614-1:1994 and IEC 60614-2-3:1990 – Pliable conduits for electrical installations.

The tubing is supplied in light grey as standard. The flexibility, impact resistance and UV stability of the material allows for a wide range of conduiting applications and also meets the construction industry requirements for conduits in concrete slabs, columns, beams and decks. Operating temperature range is -5°C to 60°C.

Compression force 740N.

The PVC tubing carries the Authorisations Committee approval number 0211064.

### Light Duty (Medium Impact)

The tubing is manufactured from medium impact, flexible, UV stable PVC material affording a durable product meeting the requirements of the relevant sections of SABS IEC 60614-1:1994 – pliable conduits for electrical installations.

The tubing is supplied in white as standard. The flexibility and UV stability of the material allows for a wide range of conduiting applications.

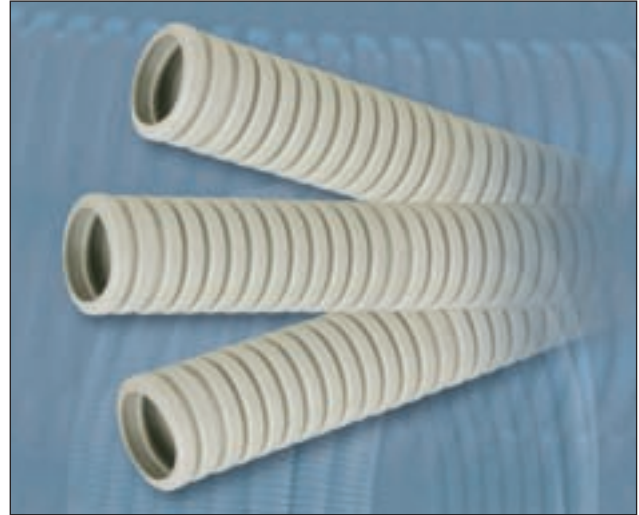
Operating temperature range is -5°C to 60°C.

Compression force 320N.

The PVC tubing dimensions are compatible with the standard range of commercially available PVC conduit fittings.



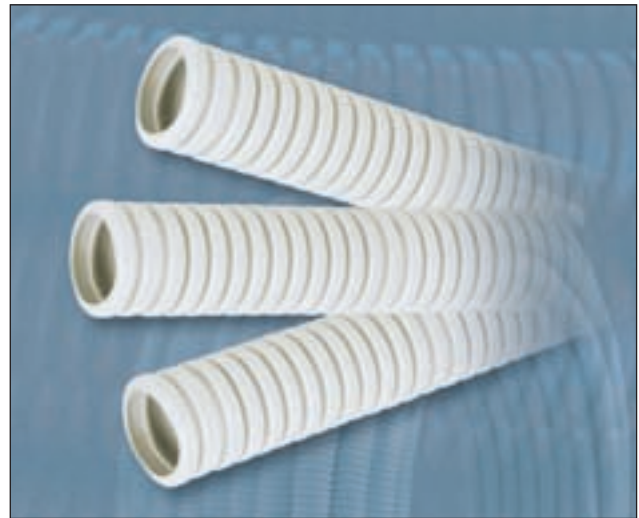
PVC tubing is supplied in 50 m coils.



Technical Table

| Code      | Nominal Size mm |     |
|-----------|-----------------|-----|
|           | I.D             | O.D |
| V20HT3905 | 15.5            | 20  |
| V25HT3905 | 20.5            | 25  |

All dimensions in mm. Subject to technical changes.



Technical Table

| Code     | Nominal Size mm |     |
|----------|-----------------|-----|
|          | I.D             | O.D |
| V20HT260 | 16              | 20  |
| V25HT260 | 21              | 25  |

All dimensions in mm. Subject to technical changes.

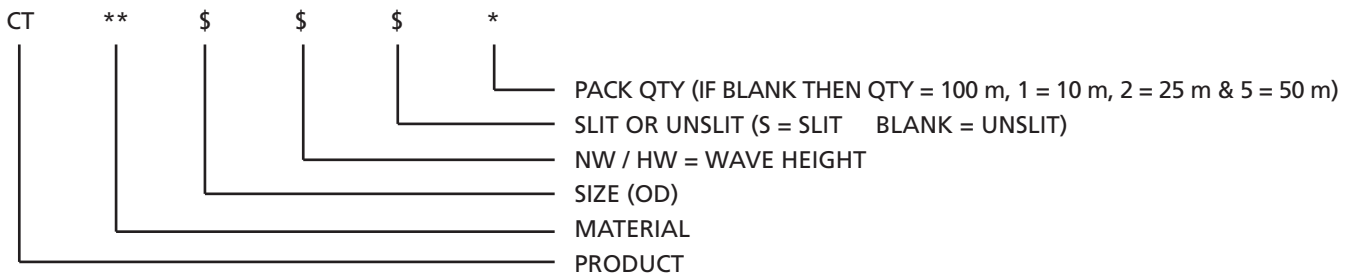
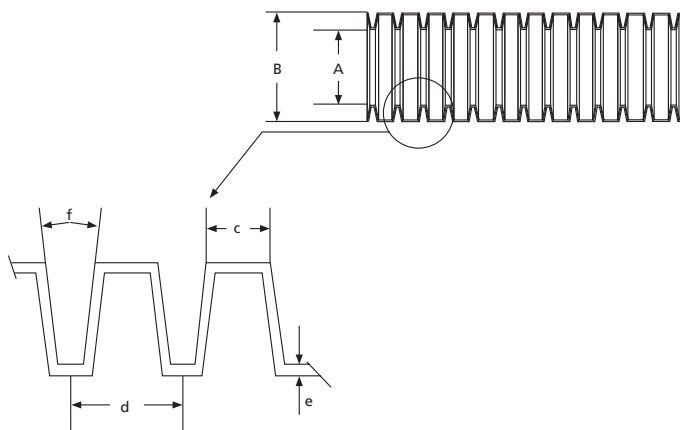
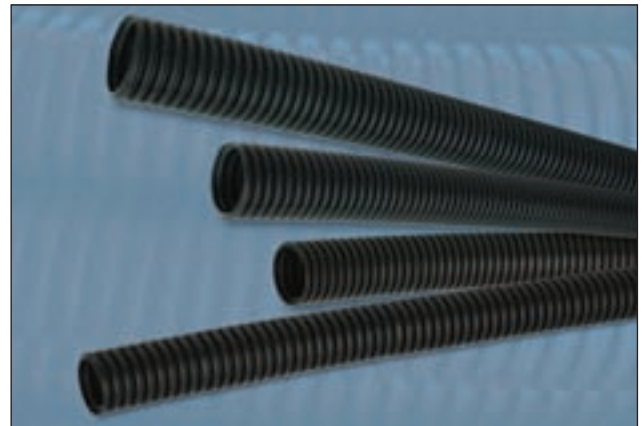
## Convuluted Tubing

### Automotive

The tubing is manufactured from a grade of Polypropelene that contains no heavy metals (lead) and is halogen free. This ensures a high quality, very flexible, environmentally acceptable product that meets the stringent requirements of sheathing for automotive wiring harnesses.

The tubing is available in slit or un-slit form. Standard colour - black, but is available on request in mid-grey, white and orange. Operating temperature range is -40°C to 150°C continuously rated.

The Polypropelene tubing has been tested and complies with various motor manufacturers specifications including Mazda, Fiat and Volkswagen. Copies of test certificates are available on request.



**MATERIAL KEY:** Polypropylene (P), Polyamide (A), PVC (V).

Available in Flame Retardant and Heat Resistant. Standard Colour - Black or Grey, others on request.

Technical Table

| Code          | Nominal Size<br>I.D. x O.D.<br>(mm) | Dimensions (mm) |      |      |       |      | Angle |  |
|---------------|-------------------------------------|-----------------|------|------|-------|------|-------|--|
|               |                                     | Tolerance - A   | B    | C    | D     | E    | F     |  |
| \$=S for slit |                                     | ±0.4            | ±0.3 | ±0.1 | ±0.15 | ±0.1 | ±5°   |  |
| CTP7NW\$      | 7 x 10                              | 6.9             | 9.6  | 1.8  | 2.6   | 0.15 | 11°   |  |
| CTP10NW\$     | 10 x 13                             | 10.1            | 12.7 | 1.8  | 2.7   | 0.2  | 20°   |  |
| CTP13NW\$     | 13 x 16                             | 12.9            | 15.8 | 1.8  | 2.7   | 0.2  | 11°   |  |
| CTP17NW\$     | 17 x 21                             | 16.8            | 21.0 | 2.2  | 3.2   | 0.2  | 11°   |  |
| CTP22NW\$     | 22 x 26                             | 21.8            | 25.5 | 2.2  | 3.1   | 0.2  | 11°   |  |
| CTP5HW\$      | 5 x 7                               | 5.0             | 7.1  | 1.2  | 2.2   | 0.15 | 30°   |  |
| CTP9HW\$      | 9 x 13                              | 8.5             | 12.9 | 2.1  | 3.14  | 0.2  | 18°   |  |
| CTP11HW\$     | 11 x 16                             | 11.1            | 15.7 | 2.1  | 3.14  | 0.2  | 18°   |  |
| CTP15HW\$     | 15 x 21                             | 15.0            | 21.2 | 2.7  | 3.9   | 0.2  | 12°   |  |
| CTP19HW\$     | 19 x 26                             | 19.1            | 25.7 | 2.9  | 4.3   | 0.25 | 12°   |  |



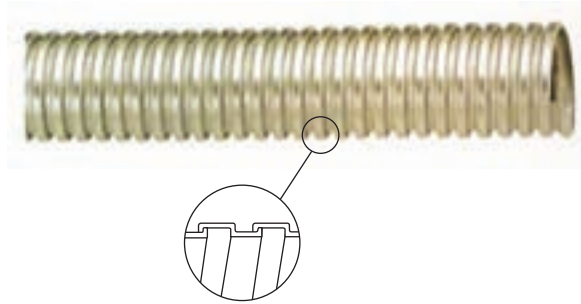
## Flexible Metal Conduit

### Construction

- Galvanized steel core, non liquid tight
- Square lock style

### Application

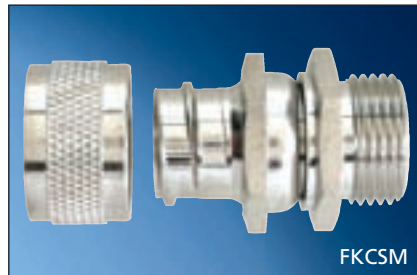
- Used with a variety of set-screws
- Offer good mechanical protection to wiring in a variety of applications



Technical Table

| Code | Size | Inside Diameter |          | Outside Diameter (over Jacket) |          | Min Bend Radius | Length of Reel | Connector  |
|------|------|-----------------|----------|--------------------------------|----------|-----------------|----------------|--|
|      |      | Min (mm)        | Max (mm) | Min (mm)                       | Max (mm) |                 |                |  |
| ST16 | 16   | 15.8            | 16.3     | 19.2                           | 19.7     | 38              | 30             | Depending on Application<br>SCM"\$" - Fixed<br>FKCFM"\$" - Fixed<br>FKCSM"\$" - Swivel |
| ST20 | 20   | 20.7            | 21.2     | 24.5                           | 25.1     | 45              | 30             |  |
| ST25 | 25   | 26.0            | 26.6     | 30.4                           | 31.0     | 55              | 30             |  |
| ST32 | 35   | 34.7            | 35.4     | 39.6                           | 40.3     | 62              | 30             |  |

"\$" = Size in mm



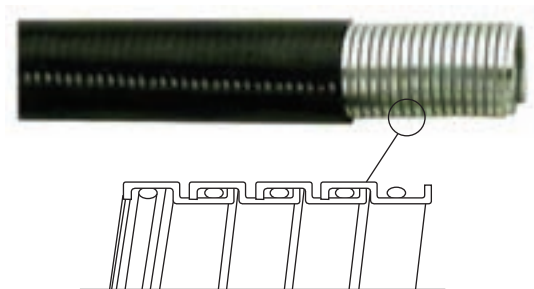
## Liquid Tight Flexible Steel Conduit

### Construction

- Galvanized steel core, corrosion resistant
- Liquid tight PVC jacket, flexible, flame retardant, impact resistant

### Application

- Used with a variety of set-screws
- Offers good mechanical protection to wiring in a variety of applications
- Working temperature -10°C – 70°C



Technical Table

| Code   | Size | Inside Diameter |          | Outside Diameter (over Jacket) |          | Min Bend Radius | Length of Reel | Connector   |
|--------|------|-----------------|----------|--------------------------------|----------|-----------------|----------------|---|
|        |      | Min (mm)        | Max (mm) | Min (mm)                       | Max (mm) |                 |                |   |
| KT20\$ | 20   | 15.80           | 16.30    | 20.80                          | 21.30    | 80              | 30             | Depending on Application<br>KCM"\$" – Flex<br>FKCFM"\$" - Fixed<br>FKCSM"\$" - Swivel |
| KT25\$ | 25   | 20.70           | 21.20    | 26.20                          | 26.70    | 100             | 30             |   |
| KT32\$ | 32   | 26.20           | 26.80    | 32.70                          | 33.40    | 150             | 30             |   |

"\$" = Size in mm Colours : Black, Grey, Orange

