

# ADHESIVE TAPES, HEAT SHRINK TUBES, COUPLING SLEEVE TECHNOLOGY, GROMMETS

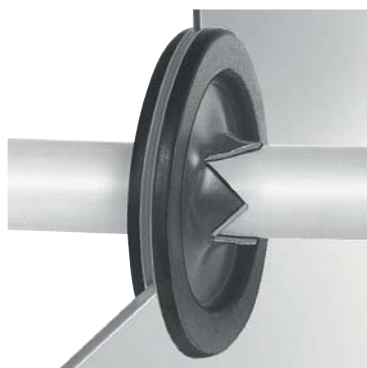
The coupling sleeve sliders allow the coupling sleeve to be easily and reliably poured, even in a sloping position.



The easy solution for protecting cable connections from dust and damp (IP 68) – APLA GEL! After the gel mass has cured, it can be removed at any time.



Specially designed for use in the electrical industry and electrical trade, our range comprises a great variety of adhesive tapes for different uses.



The feed-through grommets close the cable outputs; they allow cables and wires to be fed through the membrane, ensuring a secure seal against dust.



CIMCO adhesive tapes comply with the requirements of DIN EN 60454 and in the majority of cases exceed them.

| Design | Width mm | Length m | PU | Article no. |
|--------|----------|----------|----|-------------|
|--------|----------|----------|----|-------------|

## PVC adhesive tapes

### Universal insulating tapes

#### Description:

PVC film, coated on one side with non-corrosive, pressure sensitive rubber adhesive.

#### Special features:

Flame-retardant, self-extinguishing, good electrical and mechanical properties, waterproof, weather- and UV-resistant, silicone-free. Certified according to DIN EN 60454 - Part 2

#### Typical areas of use:

All-round adhesive tape in excellent quality, for bundling, standard insulation, coloured marking (e.g. green-yellow protective conductor) and reinforcing, ideal for many electrical installation and repair tasks.

|              |    |    |   |         |
|--------------|----|----|---|---------|
| black        | 15 | 10 | 1 | 16 0100 |
| white        |    |    | 1 | 16 0101 |
| grey         |    |    | 1 | 16 0102 |
| yellow       |    |    | 1 | 16 0103 |
| blue         |    |    | 1 | 16 0104 |
| red          |    |    | 1 | 16 0105 |
| violet       |    |    | 1 | 16 0106 |
| green        |    |    | 1 | 16 0107 |
| brown        |    |    | 1 | 16 0108 |
| green-yellow |    |    | 1 | 16 0109 |
| black        | 15 | 20 | 1 | 16 0110 |
| white        |    |    | 1 | 16 0111 |
| grey         |    |    | 1 | 16 0112 |
| yellow       |    |    | 1 | 16 0113 |
| blue         |    |    | 1 | 16 0114 |
| red          |    |    | 1 | 16 0115 |
| violet       |    |    | 1 | 16 0116 |
| green        |    |    | 1 | 16 0117 |
| brown        |    |    | 1 | 16 0118 |
| green-yellow |    |    | 1 | 16 0119 |
| black        | 19 | 20 | 1 | 16 0130 |
| white        |    |    | 1 | 16 0131 |
| grey         |    |    | 1 | 16 0132 |
| yellow       |    |    | 1 | 16 0133 |
| blue         |    |    | 1 | 16 0134 |
| red          |    |    | 1 | 16 0135 |
| violet       |    |    | 1 | 16 0136 |
| green        |    |    | 1 | 16 0137 |
| brown        |    |    | 1 | 16 0138 |
| green-yellow |    |    | 1 | 16 0139 |
| black        | 25 | 20 | 1 | 16 0140 |
| white        |    |    | 1 | 16 0141 |
| grey         |    |    | 1 | 16 0142 |
| yellow       |    |    | 1 | 16 0143 |
| blue         |    |    | 1 | 16 0144 |
| red          |    |    | 1 | 16 0145 |
| violet       |    |    | 1 | 16 0146 |
| brown        |    |    | 1 | 16 0148 |
| green-yellow |    |    | 1 | 16 0149 |
| black        | 30 | 20 | 1 | 16 0150 |
| black        | 38 | 20 | 1 | 16 0160 |
| black        | 50 | 20 | 1 | 16 0170 |

#### Rainbow pack

|                     |    |    |   |         |
|---------------------|----|----|---|---------|
| 10 assorted colours | 15 | 10 | 1 | 16 0000 |
|---------------------|----|----|---|---------|



| Design | Width mm | Length m | PU | Article no. |  |  |
|--------|----------|----------|----|-------------|--|--|
|--------|----------|----------|----|-------------|--|--|

## Insulating tapes for phase marking

### Description:

PVC film, coated on one side with non-corrosive, pressure sensitive rubber adhesive.

### Special features:

Black with white print L1, L2 and L3, blue with white print N.

### Typical areas of use:

Electrical insulation tapes for marking the conductor phase of multi-core cables.



|                              |    |    |   |         |  |
|------------------------------|----|----|---|---------|--|
| black, L1                    | 15 | 10 | 1 | 16 0201 |  |
| black, L2                    | 15 | 10 | 1 | 16 0202 |  |
| black, L3                    | 15 | 10 | 1 | 16 0203 |  |
| blue, N                      | 15 | 10 | 1 | 16 0204 |  |
| Set, 4-pieces, L1, L2, L3, N | 15 | 10 | 1 | 16 0205 |  |

## High performance electrical insulation tape for high temperatures, VDE

### Description:

PVC film, coated on one side with non-corrosive, pressure sensitive rubber adhesive.

### Special features:

Excellent resistance to high temperatures up to +105 °C, flame-retardant, self-extinguishing, UV and weather-resistant, VDE approved. Approved according to EN 60 454 Type 10

### Typical areas of use:

Insulating and repair tasks indoors and outdoors, in particular for use with the persistent influence of higher temperatures, e.g. cable wrapping on engines and in bodywork areas, wrapping of cable harnesses for motor vehicles, washing machines, dishwashers, for general thermal insulation, for bundling and for reinforcing as mechanical protection.

|       |    |    |   |         |  |
|-------|----|----|---|---------|--|
| black | 19 | 33 | 1 | 16 0250 |  |
|-------|----|----|---|---------|--|



## All weather high performance electrical insulation tape

### Description:

PVC film, coated on one side with non-corrosive, pressure sensitive rubber adhesive.

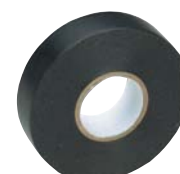
### Special features:

Excellent resistance and working properties, even at low temperatures (down to -20°C), flame-retardant, self-extinguishing, UV- and weather resistant. Approved according to EN 60 454 Type 11

### Typical areas of use:

Insulating- and repair tasks indoors and outdoors, in particular for outdoor use in extreme weather conditions, above all at low temperatures and great fluctuations in temperature, sealing and joining of medium-voltage cables, insulation and sealing of cold-storage rooms, general thermal insulation.

|       |    |    |   |         |  |
|-------|----|----|---|---------|--|
| black | 19 | 20 | 1 | 16 0260 |  |
| black | 25 | 20 | 1 | 16 0262 |  |



## Corrosion protection tapes

### Description:

Particularly strong PVC membrane, coated on one side with non-corrosive, aggressive adhesive

### Special features:

Heavy duty PVC adhesive tapes with high abrasion resistance, UV and water-resistant (including salt water), resistant to alkaline solutions and many acids and micro-organisms, bitumen compatible.

### Typical areas of use:

As an external wrap for additional protection against wear due to abrasion, weather influences and corrosion, thereby extending the service life and reducing frequent maintenance work. Examples: As protection against stone impact, kicking and scratches for exposed cables and underground cables, pipes and connection points of cables and pipelines, corrosion protection of exposed cables and lines (e.g. on ships, in wet areas, in the chemical industry), outstanding mechanical and corrosion protection for installation pipes and masts that are buried underground, base protection for electrical appliances (washing machines, tumble driers, chest freezers).

Tape thickness 0.25 mm, for heavy duty use

|        |    |    |   |         |  |
|--------|----|----|---|---------|--|
| silver | 50 | 33 | 1 | 16 0280 |  |
|--------|----|----|---|---------|--|

Tape thickness 0.44 mm, for particularly heavy duty use

|       |    |    |   |         |  |
|-------|----|----|---|---------|--|
| black | 50 | 33 | 1 | 16 0282 |  |
|-------|----|----|---|---------|--|



Design

Width mm

Length m

PU

Article no.

## Self-amalgamating insulating tapes

### Self-amalgamating high voltage insulating tape up to 35 kV

#### Description:

Cold amalgamating insulating tape made from polyisobutylene, with an easy to pull off plastic separating layer.

#### Special features:

Amalgamated after processing under slight tension to form a solid airtight and waterproof rubber layer, extremely expandable (elongation at break 600%) and able to be adapted to any form, permanently elastic, compatible with all materials for insulation and sheathing, wide application temperature range, very good electrical properties (in particular dielectric strength), resistant to UV, ozone, weather and ageing, not silicone-free.

#### Typical areas of use:

Ideal for sealing, splicing, insulating and the repair of current-carrying cables, mainly for the voltage insulation of power cables up to 17 kV/mm, very good repair properties even on heavy rubber hose lines, for the watertight sealing of electrical joints and connections (e.g. TV satellite dishes), for fastening cables outdoors, corrosion protection of metal parts, also perfectly suitable for emergency repairs on radiators, water- and engine hoses, vacuum cleaner hoses, drainage basins and pipes.

black, 0.5 mm thick

19

10

1

16 2840

25

10

1

16 2841

### Self-amalgamating insulating tape for extreme temperatures

#### Description:

Cold amalgamating insulating tape made of polyethylene, with easy to pull off plastic separating layer.

#### Special features:

Amalgamated after processing under slight tension to form a solid airtight and waterproof mass, extremely expandable (elongation at break 600%) and can be adapted to any form, permanently elastic, compatible with all materials for insulating and sheathing, extraordinary wide application temperature range, very good electrical properties (in particular dielectric strength), resistant to ozone, weather and ageing, outstanding resistance to alkaline solutions, hydraulic fluids and other chemical substances.

#### Typical areas of use:

Purposes the same as high voltage insulation tape CIMCO article no. 16 2840 – 16 2841, however additional excellent resistance to very high and very low temperatures (–35 °C to +95 °C, short-term up to 130 °C) as well as to many chemicals, for demanding insulation tasks up to 34 kV/mm and for the retention of the chemical resistance at increased temperatures.

black

19

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1

16 2830

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16 2831

| Design | Width mm | Length m | PU | Article no. |  |  |
|--------|----------|----------|----|-------------|--|--|
|--------|----------|----------|----|-------------|--|--|

## Woven insulation tapes

### Universal quality woven tape

#### Description:

Extruded woven tape, coated on the one side with waterproof polyethylene coating, on the other side with an aggressive, non-corrosive, pressure-sensitive adhesive.

#### Special features:

Matt, water- and weatherproof equipment, very easy to write on with pencil, ball-point pen, permanent marker, felt pen and etching pen, largely resistant to many chemicals, insensitive to softeners and oil vapours, very good electrical properties, can be easily torn off crossways and particularly neatly by hand.

#### Typical areas of use:

Universal gaffer tape for trade and industry: coloured identification and marking of cables, electrical components, pipes and ducts, labelling of switch cabinets, distributors, patch bays, for bundling, fixing, securing and reinforcing of cables, pipes and tubes, for masking during decorating and painting work.

|        |    |    |   |         |  |
|--------|----|----|---|---------|--|
| black  | 15 | 50 | 1 | 16 2000 |  |
| white  |    |    | 1 | 16 2001 |  |
| grey   |    |    | 1 | 16 2002 |  |
| blue   |    |    | 1 | 16 2003 |  |
| yellow |    |    | 1 | 16 2004 |  |
| red    |    |    | 1 | 16 2005 |  |
| green  |    |    | 1 | 16 2006 |  |
| black  | 19 | 50 | 1 | 16 2010 |  |
| white  |    |    | 1 | 16 2011 |  |
| grey   |    |    | 1 | 16 2012 |  |
| blue   |    |    | 1 | 16 2013 |  |
| yellow |    |    | 1 | 16 2014 |  |
| red    |    |    | 1 | 16 2015 |  |
| green  |    |    | 1 | 16 2016 |  |
| black  | 25 | 50 | 1 | 16 2020 |  |
| white  |    |    | 1 | 16 2021 |  |
| grey   |    |    | 1 | 16 2022 |  |
| blue   |    |    | 1 | 16 2023 |  |
| yellow |    |    | 1 | 16 2024 |  |
| red    |    |    | 1 | 16 2025 |  |
| green  |    |    | 1 | 16 2026 |  |
| black  | 30 | 50 | 1 | 16 2030 |  |
| white  |    |    | 1 | 16 2031 |  |
| grey   |    |    | 1 | 16 2032 |  |
| blue   |    |    | 1 | 16 2033 |  |
| yellow |    |    | 1 | 16 2034 |  |
| red    |    |    | 1 | 16 2035 |  |
| green  |    |    | 1 | 16 2036 |  |
| black  | 38 | 50 | 1 | 16 2040 |  |
| white  |    |    | 1 | 16 2041 |  |
| grey   |    |    | 1 | 16 2042 |  |
| blue   |    |    | 1 | 16 2043 |  |
| yellow |    |    | 1 | 16 2044 |  |
| red    |    |    | 1 | 16 2045 |  |
| green  |    |    | 1 | 16 2046 |  |
| black  | 50 | 50 | 1 | 16 2050 |  |
| white  |    |    | 1 | 16 2051 |  |
| grey   |    |    | 1 | 16 2052 |  |
| blue   |    |    | 1 | 16 2053 |  |
| yellow |    |    | 1 | 16 2054 |  |
| red    |    |    | 1 | 16 2055 |  |
| green  |    |    | 1 | 16 2056 |  |



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Design

Width mm

Length m

PU

Article no.

## Special adhesive tapes

### Aluminium foil adhesive tape

#### Description:

Aluminium foil, 40 µm (0.04 mm) thick, coated on one side with pressure sensitive acrylic adhesive. The tape is laminated with strong, polyethylene-coated separating paper.

#### Special features:

Heat deflecting, light reflecting, moisture resistant, very low water permeability (water vapour barrier).

#### Typical areas of use:

Heat protection and shielding of electromagnetic fields on electronic equipment, sealing of cooling insulation, bonding of intersections of aluminium foil-laminated insulation mats and insulating panels made from rock wool or fibre glass, sealing of metal or plastic ducts, applications with more stringent requirements of preventive fire protection, e.g. flame protection wrap for the installation of cables.

|        |    |    |   |         |
|--------|----|----|---|---------|
| silver | 50 | 50 | 1 | 16 2900 |
|--------|----|----|---|---------|

### Filament adhesive tape with mesh thread reinforcement

#### Description:

Carrier layer made from polypropylene, reinforced with meshed nylon threads running length and crossways for the full length of the tape, coated on one side with rubber adhesive

#### Special features:

Excellent resistance to abrasion, extremely tear resistant (longitudinal and lateral strength), no fraying at the sides, strong immediate adhesion.

#### Typical areas of use:

Bundling and pulling through cables and wiring harnesses, high-strength package tape for sealing and reinforcing even heavy packages, e.g. cardboard boxes and cartons, strapping heavy packages and other goods, banding plastic and metal tubes, metal rods, etc.

|             |    |    |   |         |
|-------------|----|----|---|---------|
| transparent | 50 | 50 | 1 | 16 2950 |
|-------------|----|----|---|---------|

### Double-sided adhesive foam tape

#### Description:

Closed-cell polyethylene foam, coated on both sides with acrylic-based adhesive, comes with separating paper.

#### Special features:

Excellent resistance to pressure, very pliable, very good resistance to UV, ageing, moisture, oils, solvents and softeners, strong immediate adhesion.

#### Typical areas of use:

Used for diverse installations of heavy loads, even vertical, indoors and outdoors, instead of riveting, screwing and liquid adhesives, also particularly good for bonding onto non-elastic materials with irregular, rough surfaces (wood, masonry, concrete, coats of paint): surface-mounting of cable routing ducts, cable clamps, switchboxes, attachment of badges, displays and signs, both made from and onto plastic, shock-proof and vibration-damped soft mounting of assemblies (e.g. circuit boards, switch panels, fittings), effective reduction of the transmission of noise (rattle protection), form-fit seals against dust, water, vapour, wind and light, also for sealing air outlets to save energy.

|       |    |    |   |         |
|-------|----|----|---|---------|
| white | 15 | 33 | 1 | 16 2861 |
|       | 19 | 33 | 1 | 16 2862 |
|       | 25 | 33 | 1 | 16 2863 |

### Paper masking tape

Low crepe paper masking tape, 0.16 mm. thick. Medium adhesion thanks to rubber-based adhesive.

Suitable for indoor use.

#### Special features:

High tear resistance of approx. 114 N / 25 mm and medium adhesion of 6.2 N / 25 mm. Temperature resistant up to max. 85 °C for 1 hour. The crepe allows it to adapt very well to different substrates and radii.

#### Typical areas of use:

Masking of areas to be blocked when painting and varnishing.

|       |    |    |   |         |
|-------|----|----|---|---------|
| beige | 19 | 50 | 1 | 16 0302 |
|       | 25 | 50 | 1 | 16 0304 |
|       | 38 | 50 | 1 | 16 0306 |
|       | 50 | 50 | 1 | 16 0308 |





| Design                                       |                     |                           |   |                                      |  |   |                             |     |                                       |     | PU              |                      | Article no.  |                 |                         |                    |                   |                 |                   |                      |             |  |  |  |
|--|---------------------|---------------------------|---|--------------------------------------|--|---|-----------------------------|-----|---------------------------------------|-----|-----------------|----------------------|--------------|-----------------|-------------------------|--------------------|-------------------|-----------------|-------------------|----------------------|-------------|--|--|--|
| Type of adhesive tape from CIMCO article no. | Tape thickness (mm) | Tear resistance (N/10 mm) | Elongation at rupture / Breaking load (N/10 mm) | Adhesive strength on steel (N/10 mm) | Adhesive strength on tape back (N/10 mm) | Dielectric strength w/ regard to spec. tape dimensions (kV) | Temperature resistance (°C) |     | Flame resistance (self-extinguishing) |     | Water-resistant | Salt water resistant | UV-resistant | Ozone-resistant | Resistance to chemicals | Abrasion-resistant | Agging resistance | Shape adaptable | Easy to break off | Residue-free removal | Inscribable |  |  |  |
|  |                     |                           |   |                                      |  |   | min                         | max | min                                   | max |                 |                      |              |                 |                         |                    |                   |                 |                   |                      |             |  |  |  |
| PVC insulation adhesive tapes                |                     |                           |   |                                      |  |   |                             |     |                                       |     |                 |                      |              |                 |                         |                    |                   |                 |                   |                      |             |  |  |  |
| 16 0000 - 16 0170                            | 0.13                | 26                        | 180   | 1 x 10 <sup>11</sup>                 | 2.4                                      | 2.1   | 8                           | -5  | +70                                   | 0   | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | good              | Yes                  | Yes         |  |  |  |
| 16 0201 - 16 0204                            | 0.18                | 40                        | 250   | 5 x 10 <sup>13</sup>                 | 2.3                                      | 1.7   | 10                          | -5  | +70                                   | 0   | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | good              | Yes                  | Yes         |  |  |  |
| 16 0250 - 16 0252                            | 0.15                | 25                        | 150   | 1 x 10 <sup>11</sup>                 | 3.0                                      | 2.6   | 9.5                         | -5  | +105                                  | 0   | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | good              | Yes                  | Yes         |  |  |  |
| 16 0260 - 16 0262                            | 0.19                | 30                        | 200   | 5 x 10 <sup>13</sup>                 | 2.2                                      | 2.0   | 10                          | -20 | +105                                  | -10 | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | good              | Yes                  | Yes         |  |  |  |
| 16 0270                                      | 0.23                | 55                        | 300   | 5 x 10 <sup>13</sup>                 | 2.5                                      | 2.0   | 10                          | -5  | +70                                   | +10 | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | very good         | Yes                  | Yes         |  |  |  |
| 16 0280                                      | 0.25                | 44                        | 220   |                                      | 3.3                                      | 3.0   | 10                          | -5  | +80                                   | +5  | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | very good         | Yes                  |             |  |  |  |
| 16 0282                                      | 0.44                | 90                        | 200   |                                      | 3.0                                      | 2.6   | 12                          | +5  | +80                                   | +5  | +40             | Yes                  | Yes          | Yes             | Yes                     | Yes                | Yes               | Yes             | excellent         | Yes                  |             |  |  |  |
| Self-adhering tapes                          |                     |                           |   |                                      |  |   |                             |     |                                       |     |                 |                      |              |                 |                         |                    |                   |                 |                   |                      |             |  |  |  |
| 16 2800                                      | 1                   |                           |   |                                      | -  | -   | 16/mm                       | -30 | +80                                   | 0   | +40             |                      |              | Yes             | Yes                     | Yes                | Yes               | Yes             | part.             |                      | Yes         |  |  |  |
| 16 2810                                      | 2                   |                           |   |                                      | -  | -   | 16/mm                       | -30 | +80                                   | 0   | +40             |                      |              | Yes             | Yes                     | Yes                | Yes               | Yes             | part.             | Yes                  | Yes         |  |  |  |
| 16 2820                                      | 3                   |                           |   | 2 x 10 <sup>10</sup>                 | -  | -   | 16/mm                       | -30 | +80                                   | 0   | +40             |                      |              | Yes             | Yes                     | Yes                | Yes               | Yes             | part.             | Yes                  | Yes         |  |  |  |
| 16 2840 - 16 2841                            | 0.5                 | 12                        | 600   | 1 x 10 <sup>13</sup>                 | -  | -   | 40/mm                       | -95 | +95                                   | 0   | +40             |                      |              | Yes             | Yes                     |                    | Yes               | Yes             | Yes               |                      | Yes         |  |  |  |
| 16 2830 - 16 2831                            | 0.5                 | 20                        | 600   | 1 x 10 <sup>15</sup>                 | -  | -   | 35/mm                       | -40 | +90                                   | 0   | +10             |                      |              | Yes             | Yes                     |                    | Yes               | Yes             | part.             | Yes                  | Yes         |  |  |  |
| Fabric adhesive tapes                        |                     |                           |   |                                      |  |   |                             |     |                                       |     |                 |                      |              |                 |                         |                    |                   |                 |                   |                      |             |  |  |  |
| 16 2000 - 16 2156                            | 0.33                | 85                        | 8   |                                      | 4.0                                      | 2.2   | 3                           | -50 | +80                                   | +10 | +45             |                      |              |                 | Yes                     |                    |                   |                 | good              |                      | Yes         |  |  |  |
| 16 2500 - 16 2502                            | 0.18                | 280                       | 5   | 1 x 10 <sup>12</sup>                 | 4.0                                      |   | 2.5                         | 0   | +130                                  | +10 | +10             |                      |              |                 | Yes                     |                    |                   |                 |                   | Yes                  |             |  |  |  |
| 16 2510 - 16 2512                            | 0.18                | 280                       | 5   | 1 x 10 <sup>12</sup>                 | 3.5                                      |   | 2.5                         | 0   | +155                                  | +10 | +10             |                      |              |                 | Yes                     |                    |                   |                 |                   | Yes                  |             |  |  |  |
| 16 2520 - 16 2522                            | 0.18                | 280                       | 5   | 1 x 10 <sup>15</sup>                 | 3.0                                      |   | 2.5                         | 0   | +180                                  | +10 | +40             | Yes                  |              |                 | Yes                     |                    |                   | Yes             |                   | Yes                  |             |  |  |  |
| Special adhesive tapes                       |                     |                           |   |                                      |  |   |                             |     |                                       |     |                 |                      |              |                 |                         |                    |                   |                 |                   |                      |             |  |  |  |
| 16 2900                                      | 0.08                | 22                        | 5   |                                      | 3.8                                      | 3.8   |                             | -20 | +110                                  | 0   | +40             | Yes                  |              | Yes             |                         | Yes                |                   |                 |                   |                      | Yes         |  |  |  |
| 16 2950                                      | 0.13                | 280                       | 10  |                                      | 8.0                                      |   |                             | 0   | +80                                   | +10 | +25             |                      | Yes          |                 |                         |                    |                   | excellent       |                   | Yes                  | Yes         |  |  |  |
| 16 2860 - 16 2863                            | 0.85                | 11                        | 300   |                                      | 10.0                                     | 10.0  |                             | -10 | +100                                  | +10 | +40             |                      |              | Yes             |                         | Yes                |                   | Yes             |                   | Yes                  |             |  |  |  |
| 16 0302 - 16 0308                            | 0.16                | 45                        | 10  |                                      | 2.5                                      |   |                             | +5  | +85                                   | +5  | +25             |                      | part.        |                 |                         |                    |                   |                 |                   | Yes                  | Yes         |  |  |  |



Product video

The mechanical coupling sleeve

## Mechanical coupling sleeve

Quick and simple assembly makes mechanical coupling sleeves optimally suited as repair and connection sleeves or branch couplings.

## Mechanical cable joint box TDM

for fast and secure connection of communication-, control- and supply lines.

Waterproof (IP 68), UV-resistant, resistant to alkaline earths and rot, joint box body made from impact-resistant plastic, with screw lid, with lug to secure the seal against unauthorised access. Suitable for connecting up to four cables. The cable joint box meets the ÖVE IM22 standard.

Scope of delivery: one cable joint box with sleeve insert, five cable ties, can of lubricant, cutter, assembly instructions.

| Type  | Conductor cross section in mm <sup>2</sup> | clearance | Application area ø mm |   |         |
|-------|--|-----------|-----------------------|---|---------|
| TDM 1 | 3 x 1.5 to 5 x 2.5                         |           | 6 - 14                | 1 | 18 4760 |
| TDM 2 | 3 x 1.5 to 5 x 16                          |           | 6 - 25                | 1 | 18 4762 |

### Accessories

|                              |  |   |         |
|------------------------------|--|---|---------|
| Spanner set TDM 2            |  | 1 | 18 4764 |
| Replacement sleeve for TDM 1 |  | 1 | 18 4766 |
| Replacement sleeve for TDM 2 |  | 1 | 18 4768 |

## Mechanical connecting sleeves (MVM) and branch couplings (MAM)

suitable for connecting from 2 to 4 cables (with double sleeves 4 to 12 cables).

Waterproof (IP 68), high mechanical stability, resistant to acid earth, separate strain relief for each entry.

| Type       | Application area ø mm          |   |         |
|------------|--------------------------------|---|---------|
| MVM 23/200 | 8 - 23 mm (8 - 13 mm)*         | 1 | 18 4160 |
| MVM 42/320 | 8 - 42 mm (8 - 16 mm/8-23 mm)* | 1 | 18 4162 |
| MAM 23/200 | 8 - 23 mm (8 - 13 mm)*         | 1 | 18 4166 |
| MAM 42/320 | 8 - 42 mm (8 - 16 mm/8-23 mm)* | 1 | 18 4168 |

\* If double sleeves are used, the values in brackets apply.



Design

PU

Article no.

## Cast resin joints

### Cast resin joint

non-flammable according to VDE 0304 Part 3

The joint body consists of a transparent, thermoplastic material and as a result is extremely resistant to chemical and mechanical influences. The polyurethane foam seals are highly reliable, preventing the escape of resin before it has cured.

### The casting resin

according to VDE 0291 Part 2

Polyurethane casting resin is an unfilled, low viscosity, elastic curing two-component system.

Technical data:

- Can be stored for 24 months
- Store in dry rooms between +5 °C and +50 °C
- Curing within 24 hours
- Temperature resistant between -25 °C and +120 °C in the cured state
- Resin and hardener can be disposed of in domestic waste

### 1 kV cast resin joint sets including joint casing and pack of casting resin in cans

consisting of joint casing, including polyurethane casting resin and hardener, one pair of disposable gloves, one spatula, two foam seals and abrasive paper.



| Type          | Conductor cross section in mm <sup>2</sup> |                  | Fill quantities |   |         |  |
|---------------|--|------------------|-----------------|---|---------|--|
|               | Clearance                                  | Branch           | Resin/Hardener  |   |         |  |
| AVM 40-175 D  | 3 x 1.5 to 5 x 6                           | 3 x 1.5 to 5 x 4 | 0.225 kg        | 1 | 18 4660 |  |
| AVM 55-220 D  | 5 x 6 to 10                                | 5 x 2.5 to 10    | 0.615 kg        | 1 | 18 4662 |  |
| AVM 75-300 D  | 4 x 16 to 25                               | 5 x 4 to 16      | 1.350 kg        | 1 | 18 4664 |  |
| AVM 95-400 D  | 4 x 35 to 70                               | 4 x 16 to 25     | 2.500 kg        | 1 | 18 4666 |  |
| AVM 110-500 D | 4 x 95 to 150                              | 4 x 25 to 50     | 4.700 kg        | 1 | 18 4668 |  |

### 1 kV two-component casting resin set as can pack

including stirrer, gloves and instructions

| Type          | Fill quantities |          | Fill quantities     |   |         |  |
|---------------|-----------------|----------|---------------------|---|---------|--|
|               | Resin           |          | Hardener            |   |         |  |
| PUR 160-200 D |                 | 0.225 kg | 172 cm <sup>3</sup> | 1 | 18 4680 |  |
| PUR 160-400 D |                 | 0.400 kg | 345 cm <sup>3</sup> | 1 | 18 4682 |  |
| PUR 160-615 D |                 | 0.615 kg | 528 cm <sup>3</sup> | 1 | 18 4770 |  |

## Shrink-on coupling sleeves

### Shrink-on coupling sleeves for compression connectors or screw connectors 1kV

thick-walled electrical shrink-on sleeves (heat shrinking) with outstanding mechanical strength, chemical resistance and electrical properties. Lined with hot melt adhesive, thus giving excellent protection against water and damp.

For the long-term connection of plastic cables laid in the ground and also on cable trays or in the open air.

Resistant to environmental influences, e.g. UV rays, ozone, oxygen, acids, alkaline earths.



| Type      | Conductor cross section in mm <sup>2</sup> |  | Cable   |           | Hose |         |
|-----------|--|--|---------|-----------|------|---------|
|           |  |  | ø mm    | length mm |      |         |
| 1.5 – 6/3 | 3 x 1.5 to 6                               |  | 11 – 18 | 200 x 60  | 1    | 18 4060 |
| 1.5 – 6/5 | 5 x 1.5 to 6                               |  | 13 – 21 | 200 x 60  | 1    | 18 4062 |
| 6 – 16/5  | 5 x 6 to 16                                |  | 18 – 25 | 450 x 100 | 1    | 18 4064 |
| 6 – 25    | 4 x 6 to 25                                |  | 16 – 32 | 450 x 100 | 1    | 18 4066 |
| 16 – 50   | 4 x 16 to 50                               |  | 21 – 36 | 550 x 150 | 1    | 18 4068 |
| 50 – 150  | 4 x 50 to 150                              |  | 29 – 54 | 650 x 200 | 1    | 18 4070 |



| Design | PU | Article no. |  |  |
|--------|----|-------------|--|--|
|--------|----|-------------|--|--|

## Connectors

Screw connectors or branch and connector terminals for 1 kV cast resin joints, shrink-on sleeve couplings and mechanical box and branch joints (MVM and MAM).

### Screw connectors

| Type       | Conductor cross-section in mm <sup>2</sup> |           |   |         |  |
|------------|--|-----------|---|---------|--|
| brass      | 1.5 – 16                                   | only Cu   | 1 | 18 0960 |  |
| tin-coated | 6 – 25                                     | Cu and Al | 1 | 18 0962 |  |



### Branch and connector terminals

| Type  | Conductor cross-section in mm <sup>2</sup> |           |   |         |  |
|-------|--|-----------|---|---------|--|
| brass | 1.5 – 10                                   | Cu and Al | 1 | 18 0964 |  |
| brass | 2.5 – 16                                   | Cu and Al | 1 | 18 0966 |  |
| brass | 6 – 25                                     | Cu and Al | 1 | 18 0968 |  |



## ALPA-GEL

The simple solution for protecting cable connections from dust and damp (IP 68). After the gel mass has cured, it can be removed at any time without a trace. The solvent-free two-component silicone gel, mixing ratio 1:1 and with a dielectric strength of 20 KV/mm, is supplied in 2 different pack sizes with mixing jug, mixing spatula, and disposable gloves.



|          |  |  |   |         |  |
|----------|--|--|---|---------|--|
| 250 ml   |  |  | 1 | 15 1010 |  |
| 1,000 ml |  |  | 1 | 15 1012 |  |

Large pack without mixing jug, mixing spatula and disposable gloves

|           |  |  |   |         |  |
|-----------|--|--|---|---------|--|
| 10,000 ml |  |  | 1 | 15 1014 |  |
|-----------|--|--|---|---------|--|



Product video  
ALPA-GEL - the silicone gel  
made by CIMCO

## Design

PU

Article no.

**Heat-shrink tubes**

Made from homogenous polyolefin, thermally stabilised, cross-linked by irradiation, with outstanding mechanical stability, chemical resistance and electrical properties:

**Significant mechanical performance properties (typical measured values):**

Tensile strength 14.8 MPa / min (N/mm<sup>2</sup>), tensile strength after heat ageing 14.5 MPa / min (N/mm<sup>2</sup>), elongation at break 460%, elongation at break after heat ageing (168 h at +158 °C) 480 %, thermal shock (4 h at +250°C) 8% with complete shrinkage, cold shock (1 h at -30 °C) no breaking. Long-term operational temperature - 55 °C to + 125 °C. Very good printability with heat seal-, inkjet- and offset printing.

**Significant chemical performance properties:**

Excellent UV light, ozone and salt water resistance, good resistance to commonly used chemicals (cleaners and solvents, weak acids and bases, fuels, oils), resistance to fungus and rot (Rating 1 according to ISO 846 Method A). The heat shrink tubes do not contain any asbestos, azoic compounds, formaldehydes or silicone. The heat shrink tubes are self-extinguishing according to UL 224 VW-1. No dioxin is released during incineration. The products are non-corrosive (compatible with copper) and compatible with all commonly used materials for cable insulation, such as plastic, rubber, lead, steel, aluminium, silicone, etc.

**Significant electrical performance properties:**

Dielectric strength 17 kV/mm (green-yellow design 15 kV/mm), specific electrical resistance 1 x 10<sup>15</sup> Ω/cm (yellow-green design 1 x 10<sup>14</sup> Ω/cm),

Further detailed mechanical, chemical, and electrical product data, as well as an overview of the approvals and certifications from various test institutes, can be obtained on request in the form of our technical data sheets.

Detailed dimensions of the individual types and sizes of the CIMCO heat shrink tube range can be found on page 360.

**Working instructions:**

- If necessary, cut the heat shrink tube to the desired length, taking care to ensure a smooth cut edge.
- Only undertake shrinking on clean surfaces, as free of dust and grease as possible.
- Begin the shrinking process, starting at one end of the tube.
- Shrinkage temperature from +70 °C to +115 °C.
- Ideally, work with a special hot-air blower, heating furnace or infrared lamp.

**Thin-walled, black heat shrink tube  
shrinkage ratio 2 : 1**

Halogen-free, thin-walled, flexible standard electrical heat shrink tube with shrinkage ratio 2 : 1 (shrinking capability down to half the specified internal diameter before heat shrinking). Highly suitable for electrical insulation, as bend- and abrasion protection, as damp protection for seals, for bundling, for strain relief and for marking in electronics and electrical engineering, telecommunications, cable assembly, in the automotive industry and many other areas.

Supplied on dispenser rolls, stable, environmentally friendly cardboard rolls, diameter approx. 300 mm – 550 mm (depending on size of heat shrink tube), core diameter approx. 30 mm, for industrial use in particular.

| Nominal-ø<br>BEFORE shrinking |       | Shrink range | Length |        |         |  |  |
|-------------------------------|-------|--------------|--------|--------|---------|--|--|
| inch                          | mm    |              | m      |        |         |  |  |
| 3/64                          | 1.1   | 0.5 – 1.1    | 200    | 1 roll | 18 4002 |  |  |
| 1/16                          | 1.5   | 0.65 – 1.5   | 200    | 1 roll | 18 4004 |  |  |
| 3/32                          | 2.5   | 1.0 – 2.5    | 200    | 1 roll | 18 4006 |  |  |
| 1/8                           | 3.5   | 1.5 – 3.5    | 200    | 1 roll | 18 4008 |  |  |
| 3/16                          | 5.0   | 2.3 – 5.0    | 100    | 1 roll | 18 4010 |  |  |
| 1/4                           | 6.5   | 3.0 – 6.5    | 100    | 1 roll | 18 4012 |  |  |
| 3/8                           | 9.5   | 4.5 – 9.5    | 100    | 1 roll | 18 4014 |  |  |
| 1/2                           | 12.5  | 6.0 – 12.5   | 100    | 1 roll | 18 4016 |  |  |
| 3/4                           | 19.0  | 9.0 – 19.0   | 100    | 1 roll | 18 4018 |  |  |
| 1                             | 26.0  | 12.5 – 26.0  | 50     | 1 roll | 18 4020 |  |  |
| 1 1/2                         | 41.5  | 20.0 – 41.5  | 50     | 1 roll | 18 4022 |  |  |
| 2                             | 50.0  | 25.0 – 50.0  | 25     | 1 roll | 18 4024 |  |  |
| 3                             | 80.0  | 41.0 – 80.0  | 25     | 1 roll | 18 4026 |  |  |
| 4                             | 100.0 | 51.0 – 100.0 | 25     | 1 roll | 18 4028 |  |  |



| Design |  | PU | Article no. |  |  |
|--------|--|----|-------------|--|--|
|--------|--|----|-------------|--|--|

In handy dispensing boxes for trade and industry use, practical transport and storage boxes made from coated cardboard, for convenient and dust-free storage even after the package has been opened and easy and orderly unrolling and cutting off, ideal for workshops and mobile use.

| Nominal-ø<br>BEFORE shrinking |      | Shrink range | Length |   |         |  |
|-------------------------------|------|--------------|--------|---|---------|--|
| inch                          | mm   |              |        |   |         |  |
| 1/16                          | 1.5  | 0.65 to 1.5  | 20     | 1 | 18 1318 |  |
| 3/32                          | 2.5  | 1.0 to 2.5   | 15     | 1 | 18 1319 |  |
| 1/8                           | 3.5  | 1.5 to 3.5   | 15     | 1 | 18 1327 |  |
| 3/16                          | 5.0  | 2.3 to 5.0   | 12     | 1 | 18 1303 |  |
| 1/4                           | 6.5  | 3.0 to 6.5   | 12     | 1 | 18 1305 |  |
| 3/8                           | 9.5  | 4.5 to 9.5   | 8      | 1 | 18 1307 |  |
| 1/2                           | 12.5 | 6.0 to 12.5  | 5      | 1 | 18 1311 |  |
| 3/4                           | 19.0 | 9.0 to 19.0  | 5      | 1 | 18 1313 |  |
| 1                             | 26.0 | 12.5 to 26.0 | 5      | 1 | 18 1317 |  |



In small package, suitable for trade use, containing 1 piece heat shrink tube 1 metre in length.

| Nominal-ø<br>BEFORE shrinking |      | Shrink range | Length |   |         |  |
|-------------------------------|------|--------------|--------|---|---------|--|
| inch                          | mm   |              |        |   |         |  |
| 3/16                          | 5.0  | 2.3 to 5.0   | 1      | 1 | 18 1330 |  |
| 1/4                           | 6.5  | 3.0 to 6.5   | 1      | 1 | 18 1331 |  |
| 3/8                           | 9.5  | 4.5 to 9.5   | 1      | 1 | 18 1332 |  |
| 1/2                           | 12.5 | 6.0 to 12.5  | 1      | 1 | 18 1333 |  |
| 3/4                           | 19.0 | 9.0 to 19.0  | 1      | 1 | 18 1334 |  |
| 1                             | 26.0 | 12.5 to 26.0 | 1      | 1 | 18 1335 |  |

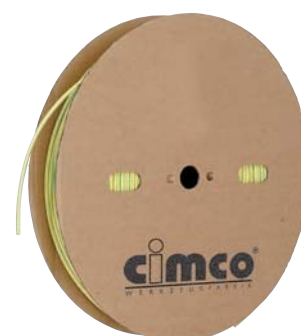


## Thin-walled green-yellow heat shrink tube, shrinkage ratio 2 : 1

Two-coloured, lengthwise striped, thin-walled, flexible electrical heat shrink tube with shrinkage ratio 2 : 1 (shrinking capacity down to half the specified internal diameter before heat shrinking). Highly suitable for electrical insulation, as bend- and abrasion protection, as damp protection for seals, for bundling, for strain relief and for marking in electronics and electrical engineering, telecommunications, cable assembly, in the automotive industry and many other areas, ideal marking grounding conductors.

Supplied on dispenser rolls, stable, environmentally friendly cardboard rolls, diameter approx. 300 mm - 550 mm (depending on size of heat shrink tube), core diameter approx. 30 mm, for industrial use in particular.

| Nominal-ø<br>BEFORE shrinking |       | Shrink range  | Length |        |         |  |
|-------------------------------|-------|---------------|--------|--------|---------|--|
| inch                          | mm    |               |        |        |         |  |
| 3/32                          | 2.5   | 1.0 to 2.5    | 200    | 1 roll | 18 4106 |  |
| 1/8                           | 3.5   | 1.5 to 3.5    | 200    | 1 roll | 18 4108 |  |
| 3/16                          | 5.0   | 2.3 to 5.0    | 100    | 1 roll | 18 4110 |  |
| 1/4                           | 6.5   | 3.0 to 6.5    | 100    | 1 roll | 18 4112 |  |
| 3/8                           | 9.5   | 4.5 to 9.5    | 100    | 1 roll | 18 4114 |  |
| 1/2                           | 12.5  | 6.0 to 12.5   | 100    | 1 roll | 18 4116 |  |
| 3/4                           | 19.0  | 9.0 to 19.0   | 100    | 1 roll | 18 4118 |  |
| 1                             | 26.0  | 12.5 to 26.0  | 50     | 1 roll | 18 4120 |  |
| 1 1/2                         | 41.5  | 20.0 to 41.5  | 50     | 1 roll | 18 4122 |  |
| 2                             | 51.0  | 25.0 to 51.0  | 25     | 1 roll | 18 4124 |  |
| 3                             | 80.0  | 40.0 to 80.0  | 25     | 1 roll | 18 4126 |  |
| 4                             | 100.0 | 50.0 to 100.0 | 25     | 1 roll | 18 4128 |  |

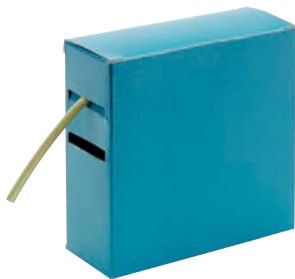


## Design

PU

Article no.

In handy dispensing boxes for trade and industry use, practical transport and storage boxes made from coated cardboard, for convenient and dust-free storage even after the package has been opened and easy and orderly unrolling and cutting off, ideal for workshops and mobile use.



| Nominal-ø<br>BEFORE shrinking |      | Shrink range |      | Length |   |         |  |
|-------------------------------|------|--------------|------|--------|---|---------|--|
| inch                          | mm   | mm           |      | m      |   |         |  |
| 3/32                          | 2.5  | 1.0 to       | 2.5  | 15     | 1 | 18 4136 |  |
| 1/8                           | 3.5  | 1.5 to       | 3.5  | 15     | 1 | 18 4138 |  |
| 3/16                          | 5.0  | 2.3 to       | 5.0  | 12     | 1 | 18 4140 |  |
| 1/4                           | 6.5  | 3.0 to       | 6.5  | 12     | 1 | 18 4142 |  |
| 3/8                           | 9.5  | 4.5 to       | 9.5  | 8      | 1 | 18 4144 |  |
| 1/2                           | 12.5 | 6.0 to       | 12.5 | 8      | 1 | 18 4146 |  |
| 3/4                           | 19.0 | 9.0 to       | 19.0 | 5      | 1 | 18 4148 |  |
| 1                             | 26.0 | 12.5 to      | 26.0 | 5      | 1 | 18 4150 |  |

## Medium-walled black heat shrink tube,

### Shrinkage ratio 3 : 1

Halogen-free, medium-walled, yet very flexible standard electrical heat shrink tube with shrinkage ratio of 3 : 1 (shrinking capacity down to a third of the specified internal diameter before heat shrinking). Highly suitable for electrical insulation, as bend and abrasion protection, as damp protection for seals, for bundling, for strain relief and for marking in electronics and electrical engineering, telecommunications, cable assembly, in the automotive industry and many other areas. Thanks to the shrinkage ratio of 3 : 1, particularly suitable for compensating large differences in diameter of the object to be shrink-wrapped, e.g. markedly contoured parts such as coupling sleeves, plugs and switches, as well as for covering a wide range of applications with just a few heat shrink tube sizes, without adhesive lining.

Supplied on dispenser rolls, stable, environmentally friendly cardboard rolls, diameter approx. 300 mm – 550 mm (depending on size of heat shrink tube), core diameter approx. 30 mm, for industrial use in particular.



| Nominal-ø<br>BEFORE shrinking |      | Shrink range |      | Length |        |         |  |
|-------------------------------|------|--------------|------|--------|--------|---------|--|
| inch                          | mm   | mm           |      | m      |        |         |  |
| 1/16                          | 1.5  | 0.5 to       | 1.5  | 200    | 1 roll | 18 4204 |  |
| 1/8                           | 3.0  | 1.0 to       | 3.0  | 200    | 1 roll | 18 4206 |  |
| 1/4                           | 6.0  | 2.0 to       | 6.0  | 100    | 1 roll | 18 4208 |  |
| 3/8                           | 9.0  | 3.0 to       | 9.0  | 50     | 1 roll | 18 4210 |  |
| 1/2                           | 12.0 | 4.0 to       | 12.0 | 50     | 1 roll | 18 4212 |  |
| 3/4                           | 18.0 | 6.0 to       | 18.0 | 50     | 1 roll | 18 4214 |  |
| 1                             | 24.0 | 8.0 to       | 24.0 | 25     | 1 roll | 18 4216 |  |

#### Heat shrink tube in 1 metre sections

|       |       |       |     |   |   |         |  |
|-------|-------|-------|-----|---|---|---------|--|
| 1 1/2 | 39.0  | 13 to | 39  | 1 | 1 | 18 4218 |  |
| 2     | 50.0  | 16 to | 50  | 1 | 1 | 18 4220 |  |
| 3     | 80.0  | 26 to | 80  | 1 | 1 | 18 4222 |  |
| 4     | 100.0 | 33 to | 100 | 1 | 1 | 18 4224 |  |

In handy dispensing boxes for trade and industry use, practical transport and storage boxes made from coated cardboard, for convenient and dust-free storage even after the package has been opened and easy and orderly unrolling and cutting off, ideal for workshops and mobile use.



| Nominal-ø<br>BEFORE shrinking |      | Shrink range |      | Length |   |         |  |
|-------------------------------|------|--------------|------|--------|---|---------|--|
| inch                          | mm   | mm           |      | m      |   |         |  |
| 1/16                          | 1.5  | 0.5 to       | 1.5  | 17     | 1 | 18 4234 |  |
| 1/8                           | 3.0  | 1.0 to       | 3.0  | 15     | 1 | 18 4236 |  |
| 1/4                           | 6.0  | 2.0 to       | 6.0  | 5      | 1 | 18 4238 |  |
| 3/8                           | 9.0  | 3.0 to       | 9.0  | 8      | 1 | 18 4240 |  |
| 1/2                           | 12.0 | 4.0 to       | 12.0 | 6      | 1 | 18 4242 |  |
| 3/4                           | 18.0 | 6.0 to       | 18.0 | 4      | 1 | 18 4244 |  |
| 1                             | 24.0 | 8.0 to       | 24.0 | 3      | 1 | 18 4246 |  |

| Design |  | PU | Article no. |  |  |
|--------|--|----|-------------|--|--|
|--------|--|----|-------------|--|--|

## Medium-walled black heat shrink tube,

### Shrinking ratio 3 : 1, with internal adhesive

Halogen-free, medium-walled, yet very flexible standard electrical heat shrink tube with shrinkage ratio 3 : 1 (shrinking capacity down to a third of the specified internal diameter before heat shrinking). Thanks to outstanding mechanical stability and chemical resistance, this tube is highly suitable for electrical insulation, as bend and abrasion protection, as damp protection for seals, for bundling, for strain relief and for marking in electronics and electrical engineering, telecommunications, cable assembly, in the automotive industry and many other areas. Thanks to the shrinkage ratio of 3 : 1, particularly suitable for compensating for large differences in diameter of the object to be shrink-wrapped, e.g. markedly contoured parts such as coupling sleeves, plugs, and switches, as well as for covering a wide range of applications with just a few heat shrink tube sizes. Excellent sealing properties thanks to the inner lining of special hot melt adhesive, providing outstanding protection against water and moisture penetration. The melting temperature of the hot melt adhesive is approx. +70 °C to +80 °C.

Supplied on dispenser rolls, stable, environmentally friendly cardboard rolls, diameter approx. 300 mm - 550 mm (depending on size of heat shrink tube), core diameter approx. 30 mm, for industrial use in particular.

| Nominal-ø<br>BEFORE shrinking |     | Shrink range | Length |        |         |  |
|-------------------------------|-----|--------------|--------|--------|---------|--|
| inch                          | mm  |              |        |        |         |  |
| 1/8                           | 3.2 | 1.0 to 3.2   | 200    | 1 roll | 18 4306 |  |
| 1/4                           | 6.4 | 2.2 to 6.4   | 100    | 1 roll | 18 4308 |  |

Heat shrink tube in 1.22 metre sections

|       |      |              |      |   |         |  |
|-------|------|--------------|------|---|---------|--|
| 3/8   | 9.5  | 3.2 to 9.5   | 1.22 | 1 | 18 4310 |  |
| 1/2   | 12.7 | 4.2 to 12.7  | 1.22 | 1 | 18 4312 |  |
| 3/4   | 19.1 | 6.3 to 19.1  | 1.22 | 1 | 18 4314 |  |
| 1     | 25.4 | 8.5 to 25.4  | 1.22 | 1 | 18 4316 |  |
| 1 1/2 | 39.0 | 13.5 to 39.0 | 1.22 | 1 | 18 4318 |  |
| 2     | 50.0 | 17.0 to 50.0 | 1.22 | 1 | 18 4320 |  |

### Hot air blower set

robust and reliable device "Made in Germany" for all standard applications with hot air up to max. 500 °C, e.g. thawing water pipes, heat shrinking, drying and removing paint, plastic forming, soft-soldering, etc. With 2 heat settings: Setting 1 up to 300 °C and 240 litres/min. air volume, Setting 2 up to 500 °C and 500 litres/min. air volume, wattage 1600 W, 230 – 240 Volt, 50 Hz, with strong rubber connecting cable, double overheating protection, suitable for manual and stand operation. Weight 700 g

Supply includes 2 push-on nozzles: wide angle nozzle (for all-round even heat for soft-soldering thin copper pipes, for heat shrinking heat shrink tubes and for forming PVC tubes), soldering reflector nozzle (for simultaneous soldering and shrinking of soldering sleeves).

|  |  |  |              |   |         |  |
|--|--|--|--------------|---|---------|--|
|  |  |  | 240 x 200 mm | 1 | 18 1351 |  |
|--|--|--|--------------|---|---------|--|



## Design

PU

Article no.

**Feed-through- and anti-kink sleeves made from soft PVC**

Softened PVC is one of the first plastics to find a use in technical applications. Thanks to its thermoplastic properties, soft PVC can be processed both by injection moulding and extrusion. Depending on the formula of the blend, its consistency can be from semi-hard to rubber-like.

Soft PVC is distinguished by the following features:

- Heat resistant up to +90 °C briefly, up to +70/75 °C permanently
- Cold resistant up to -25 to -30 °C
- Resistant to water, ozone, weathering, diluted acids, alkalis and salts
- Very good resistance to ageing
- Medium resistance to aromatics, ketones, mineral oil, petrol, esters (swelling)
- Very good electrical insulation properties
- Large colour spectrum, colourfast
- Available in fully transparent or tinted transparent

These shaped parts feature perfect surfaces and exact dimensions.

**Feed-through grommets with through hole**

Made of soft black PVC 9542

Can be used at temperatures between -30 °C and +70 °C

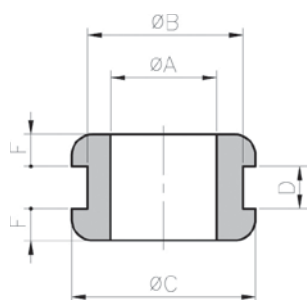
Hardness Shore A: 55 +/- 5

Tensile strength: 8 MPa

Elongation at break: > 250%

Dielectric strength: > 20 kV/mm

Characteristics: HB UL94



| ø A<br>mm | ø B<br>mm | ø C<br>mm | D<br>mm | F<br>mm | PG-dim | Metric |     |         |
|-----------|-----------|-----------|---------|---------|--------|--------|-----|---------|
| 4         | 8         | 11        | 1.5     | 2.0     |        |        | 100 | 18 4800 |
| 5         | 8         | 11        | 1.5     | 2.0     |        |        | 100 | 18 4802 |
| 6         | 9         | 12        | 1.0     | 2.0     |        |        | 100 | 18 4804 |
| 6         | 9         | 12        | 4.0     | 2.0     |        |        | 100 | 18 4806 |
| 6         | 9         | 12        | 2.0     | 2.0     |        |        | 100 | 18 4808 |
| 6         | 9         | 12        | 1.5     | 2.0     |        |        | 100 | 18 4810 |
| 7         | 10        | 14        | 1.5     | 2.5     |        |        | 100 | 18 4812 |
| 8         | 10        | 14        | 1.5     | 2.5     |        |        | 100 | 18 4814 |
| 8         | 12        | 16        | 1.5     | 2.5     | 7      | 12     | 100 | 18 4816 |
| 9         | 12        | 16        | 1.5     | 2.5     | 7      | 12     | 100 | 18 4818 |
| 10        | 12        | 16        | 2.0     | 2.5     | 7      | 12     | 100 | 18 4820 |
| 10        | 18        | 22        | 1.0     | 2.5     | 11     |        | 100 | 18 4822 |
| 10        | 18        | 22        | 4.0     | 2.5     | 11     |        | 100 | 18 4824 |
| 12        | 18        | 22        | 1.0     | 2.5     | 11     |        | 100 | 18 4826 |
| 14        | 22        | 27        | 1.0     | 3.0     | 16     |        | 100 | 18 4828 |
| 16        | 22        | 27        | 1.0     | 3.0     | 16     |        | 100 | 18 4830 |
| 18        | 22        | 27        | 1.0     | 3.0     | 16     |        | 100 | 18 4832 |

**Grommet with long hole**

Made of grey, soft PVC

Application temperatures: -30 °C to +70 °C

Hardness Shore A: 55 +/- 5

Tensile strength: 8 MPa

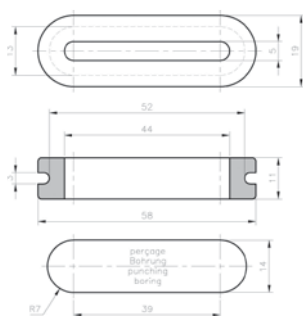
Elongation at break: > 250%

Dielectric strength: > 20 kV/mm

Characteristics: HB UL94

Application for protection of flat cables

| L mm | W mm | H mm |     |         |
|------|------|------|-----|---------|
| 52.0 | 13.0 | 11.0 | 100 | 18 4834 |





| Design |  | PU | Article no. |  |  |
|--------|--|----|-------------|--|--|
|--------|--|----|-------------|--|--|

## Anti-kink sleeves

Made of black, soft PVC

Application temperatures: -30 °C to +70°C

Hardness Shore A: 55 +/- 5

Tensile strength: 8 MPa

Elongation at break: > 250%

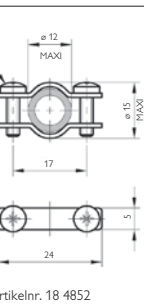
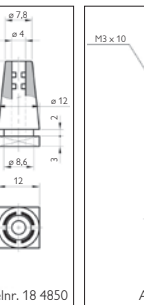
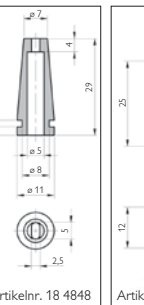
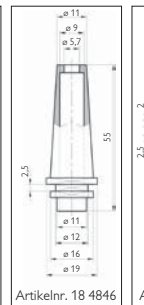
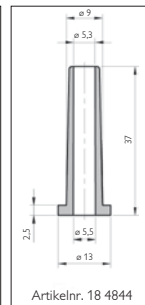
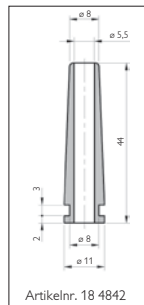
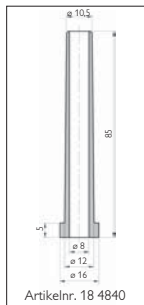
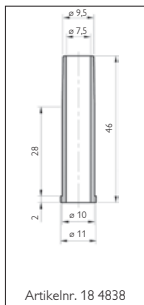
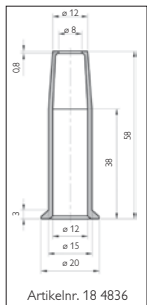
Dielectric strength: > 20 kV/mm

Characteristics: HB UL94

Application for protection of flat cables

PG-dimen-  
sion

|  |   |     |         |  |
|--|---|-----|---------|--|
|  |   | 100 | 18 4836 |  |
|  |   | 100 | 18 4838 |  |
|  | 7 | 100 | 18 4840 |  |
|  |   | 100 | 18 4842 |  |
|  |   | 100 | 18 4844 |  |
|  | 7 | 50  | 18 4846 |  |
|  |   | 100 | 18 4848 |  |
|  |   | 100 | 18 4850 |  |
|  |   | 100 | 18 4852 |  |



## Membrane feed-through grommets

Made of black, soft PVC

Application temperatures: -30 °C to +70°C

Hardness Shore A: 55 +/- 5

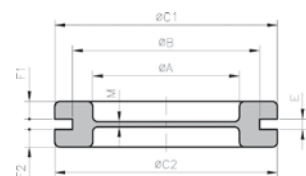
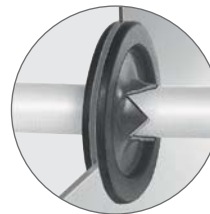
Tensile strength: 8 MPa

Elongation at break: > 250%

Dielectric strength: > 20 kV/mm

Characteristics: HB UL94

Application: to seal cable outlets; they allow cables and wires to be fed through the membrane, ensuring a seal against dust.



| ø A  | ø B  | ø C1 | ø C2 | E   | F1  | F2  | M   | PG-dim |     |         |
|------|------|------|------|-----|-----|-----|-----|--------|-----|---------|
| mm   | mm   | mm   | mm   | mm  | mm  | mm  | mm  |        |     |         |
| 9.0  | 15.0 | 20.0 | 18.0 | 2.0 | 2.5 | 2.5 | 1.0 | 9      | 100 | 18 4854 |
| 11.0 | 18.0 | 22.5 | 21.5 | 2.0 | 2.5 | 2.5 | 1.0 | 11     | 100 | 18 4856 |
| 13.5 | 20.0 | 24.0 | 24.0 | 2.0 | 2.5 | 2.5 | 1.0 | 13.5   | 100 | 18 4858 |
| 16.0 | 22.0 | 27.5 | 26.0 | 2.0 | 2.7 | 2.7 | 1.0 | 16     | 100 | 18 4860 |
| 21.0 | 28.0 | 34.5 | 34.5 | 2.0 | 3.0 | 3.0 | 1.0 | 21     | 100 | 18 4862 |
| 21.0 | 28.0 | 34.5 | 34.5 | 1.0 | 4.0 | 3.0 | 1.2 | 21     | 100 | 18 4864 |
| 29.0 | 36.5 | 43.0 | 43.0 | 2.2 | 3.7 | 3.7 | 1.5 | 29     | 100 | 18 4866 |
| 35.0 | 46.0 | 52.5 | 52.5 | 2.5 | 3.8 | 3.8 | 1.3 | 36     | 100 | 18 4868 |
| 46.5 | 59.0 | 66.2 | 66.2 | 2.5 | 4.0 | 4.0 | 1.6 | 48     | 50  | 18 4870 |

| ø A  | ø B  | ø C1 | ø C2 | E   | F1  | F2  | M   | Metr. |     |         |
|------|------|------|------|-----|-----|-----|-----|-------|-----|---------|
| mm   | mm   | mm   | mm   | mm  | mm  | mm  | mm  | dim   |     |         |
| 9.0  | 16.0 | 20.0 | 20.0 | 2.0 | 2.5 | 2.5 | 1.0 | M16   | 100 | 18 4874 |
| 13.5 | 20.0 | 25.0 | 25.0 | 2.0 | 2.5 | 2.5 | 1.0 | M20   | 100 | 18 4876 |
| 18.5 | 25.0 | 30.5 | 30.5 | 2.0 | 2.5 | 2.5 | 1.0 | M25   | 100 | 18 4878 |
| 25.0 | 32.0 | 39.0 | 39.0 | 2.0 | 3.0 | 3.0 | 1.0 | M32   | 100 | 18 4880 |
| 31.0 | 40.0 | 47.0 | 47.0 | 2.5 | 3.8 | 3.8 | 1.0 | M40   | 50  | 18 4882 |
| 39.0 | 50.0 | 57.0 | 57.0 | 2.5 | 3.8 | 3.8 | 1.0 | M50   | 50  | 18 4884 |
| 53.0 | 63.5 | 75.0 | 75.0 | 2.5 | 3.8 | 3.8 | 1.0 | M63   | 50  | 18 4886 |

