2026/27

PRODUCT CATALOGUE

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COMPANY
VISION AND HISTORY

Vision

Powering a brighter Southern Africa, together.

To build a reliable and sustainable energy future for Southern Africa through exceptional products, world-class service, and innovative engineering solutions.

History

Airshrink SA is a South African manufacturer of heat shrink tubing and extruded products, initially established in 1986. In 2001, with a change of ownership, a renewed focus was placed on heat shrinkable tubing, which allowed the company to develop and expand its product offering, culminating in the addition of the specialised cable accessory company Cable Installation Products (CiP) in the 2010s. CiP, in turn, has developed into a leading South African cable accessory company offering excellent products, service, and technical expertise. Being based in Johannesburg, the companies have access to South Africa's industrial and commercial hub, which has allowed the group to service both the South African and neighbouring international markets.

To better serve our customers' and the market's needs, we established partnerships with some leading international cable accessory manufacturers, including Elcon Megarad, Ampletek, and Melec. Our partnerships provide us with valuable expertise and high-quality, industry-tested products that meet both local and international specifications. By providing unparalleled service with our exceptional team, we aim to build lasting relationships with all our stakeholders.

Airshrink and CiP have a comprehensive portfolio of products that meet the needs and specifications of various municipalities, supply authorities, OEMs, and industries. Our robust distributor network enables us to cover most of Southern Africa, ensuring that our products are readily available. Our training centre is EWSETA-accredited, which allows us to train the next generation of cable jointers and deliver on our vision of a stable energy network. Our continued investment in staff, processes, and equipment enables us to offer tailored engineering solutions for a variety of challenges.

ACCREDITATIONS AND PARTNERS

elconmegarad

AMPLETEK

MELEC
Since 1992

EW SETA

WT HENLEY

ISO 9001
BUREAU VERITAS
Certification

ETHEKWINI MUNICIPALITY

Eskom

CITY OF TSHWANE
IGNITING EXCELLENCE

CENTLEC
Reg No. 2003/011612/30

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Ekurhuleni
METROPOLITAN MUNICIPALITY

CONTENT

PRODUCT PROFILE

Airshrink

Airshrink tubing shrinks when exposed to air. Supplied in expanded form in any length or colour, diameters ranging from 1 mm to 90 mm. All you do is remove it from its container, slip it on and let the air do the rest. One hour later, you have the perfect shrink. Airshrink is ideally suited to irregular-shaped objects and tight bends. Applications include:

- Insulation and colour coding of busbars, lugs, etc.
- Strain relief on lugs
- Sound sticks for mines
- Coating of gym equipment (barbells, handles, and footrests)
- Covering on lawn mower handles (insulation and comfort)
- Anti-rattle sleeves (automotive seat springs)
- Covering of canoe paddles
- Automotive coil and leaf springs (dampening)

Heatshrink

Standard heatshrink is a cross-linked polyolefin product that can be supplied in either general-purpose or flame-retardant form. Heat shrink's high dielectric strength and excellent mechanical properties makes it suitable for a variety of applications. Applications include:

- Insulation and colour coding of busbars, lugs etc.
- Cable and component identification
- Mechanical strain relief and protection

Specialised heatshrink and components range with a thicker wall, higher shrink ratios, adhesive-lined, RoHS and REACH compliant, halogen-free, and product suitable for applications up to 36 kV.

Other products include:

- Heatshrink with excellent resistance to diesel, chemicals and hydraulic fluids
- Medium and thick wall adhesive and non-adhesive lined for use in low voltage and medium voltage joints and terminations
- Wrap around cable repair sleeves
- Heatshrinkable ladder / rail type and continuous reel marker sleeves

Spiral Bind

General-purpose helically split thermoplastic tube manufactured in a range of diameters and colours. The main application is for organising and protecting cables and hoses.

Other applications include:

- Harness for wires and electrical cables (e.g. computer, Hi-Fi & telephone systems)
- Breakout on cable bundling systems
- Colour coding and mechanical protection on regulator hoses

PRODUCT PROFILE

Straws, Leashes, and TPU Solid Extrusions Cords
Rigid and flexible PVC extrusions and profiles available in colours used as leashes in sporting goods, such as surfboards, body boards, sunglasses as well as a host of applications in the promotional markets (flag posts and drinking straws). High-strength polymeric rope makes this product ideal as tie-down for tarpaulins on trucks and LDVs.

Control Cable Sleeves
Semi-rigid HDPE, polyacetal, polypropylene and PTFE sleeves used in automotive control cables e.g. accelerator, clutch and brake cables.

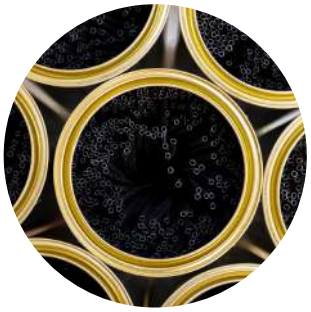
Harness Tubing
Flexible PVC used to secure and protect numerous wires, in the manufacture of wiring harnesses. Tubing available in different colours and sizes.

Low Voltage Cable Accessories

- LV heat shrink terminations
- LV heat shrink, polyurethane- and epoxy resin joints
- Mechanical torque shear lugs and connectors
- LV breakout boots
- Cable end caps (adhesive lined)

Other Products

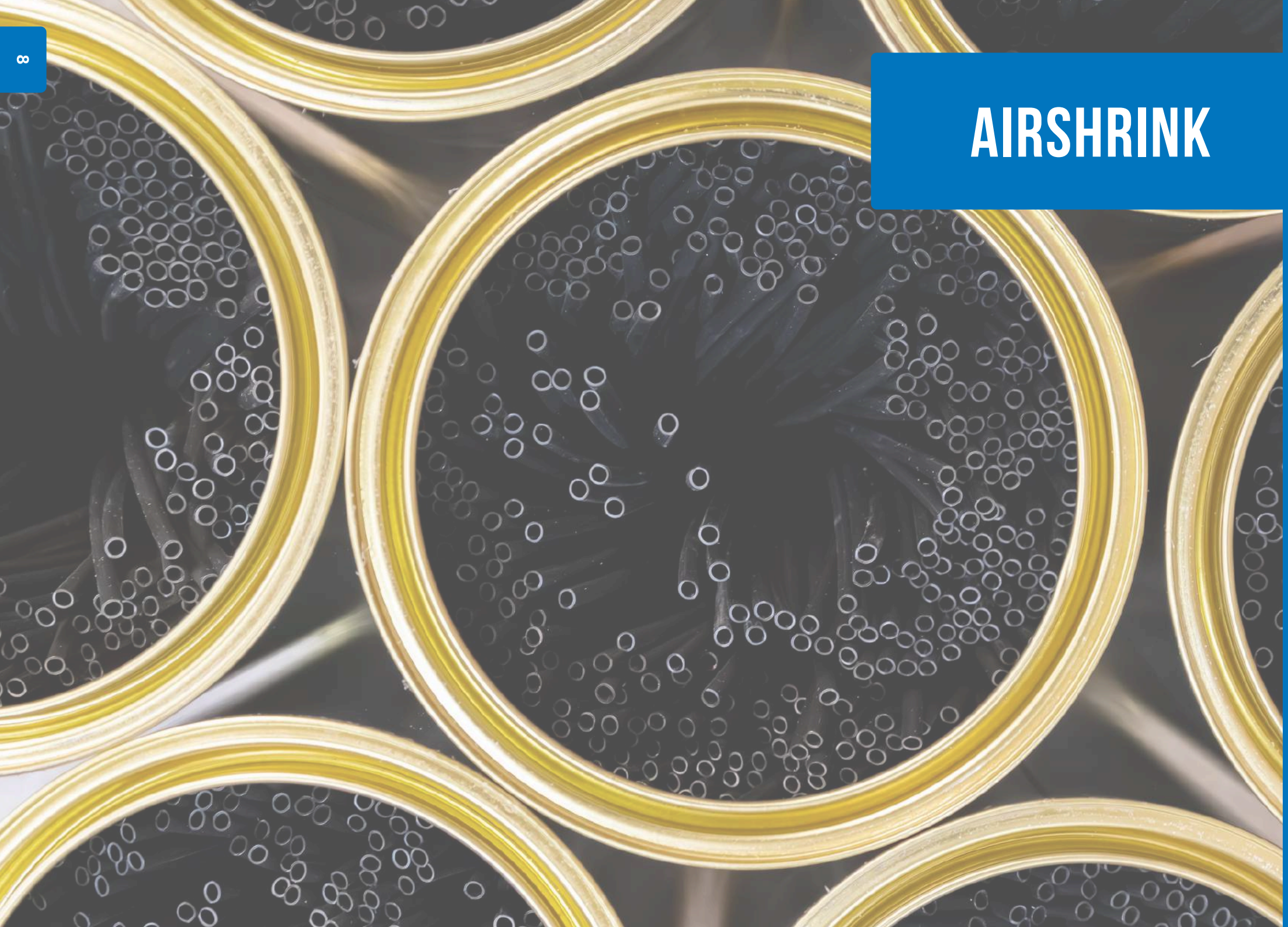
- Expandable braided sleeving
- Heat guns and gas burners
- Hot melt tape
- Mastic / putty tape



Cable Installation Products
Medium Voltage Cable Accessories

- MV heat shrink terminations and cable joints
- MV cold shrink terminations and cable joints
- MIRP (Moulded Insulated Resin Protected) cable joints
- Screened front, rear and surge protection separate connectors
- Unscreened bushing boots
- Unscreened separable connectors
- Anti-tracking heat shrinkable bushing boots
- Inner cone plug-in terminations
- Anti-track heat shrink tubing
- Busbar insulation heat shrink tubing
- Busbar insulation tape
- Mechanical torque shear lugs and connectors
- Overhead line insulation sleeve

AIRSHRINK



AIRSHRINK

AS

KEY FEATURES

- ***Max shrink ratio 1.5 : 1***
- ***15 minutes handling time***
- ***90 % recovery in 1 hour***
- ***Operating temperature -35 °C to 80 °C***
- ***High chemical resistance***
- ***Excellent electrical properties***
- ***Flame retardant when recovered***
- ***Colours: Standard colours***
- ***Uniform shrinkage, even around bends***
- ***Excess of one-year shelf life when stored correctly***

Airshrink tubing, the product that started it all, shrinks when exposed to air, making it an ideal alternative to Heatshrink for installations where the use of open heat sources are not practical. Supplied in expanded form in almost any length or colour, with diameters ranging from 1 mm to 90 mm, Airshrink remains a trusted sleeving solution for almost 40 years.

APPLICATION

- Insulation and colour coding of busbars and bus tubes.
- Covering of handles for electrical, aesthetic and functional requirements (eg. lawn mowers, gym equipment etc.).
- Insulation and strain relief of heat sensitive electronic components.
- Precut lengths for easy insulation and colour coding lugs.

DIMENSIONS

Product	Expanded ID (mm)	Recovered ID (mm)	Wall Thickness (mm)	Meters Per Tin
AS0103	1.3	1.0	0.30	80
AS01505	2.0	1.5	0.50	80
AS0205	2.6	2.0	0.50	80
AS02505	3.3	2.5	0.50	80
AS0305	3.9	3.0	0.50	60
AS0405	5.2	4.0	0.50	60
AS0505	6.5	5.0	0.50	40
AS0607	7.8	6.0	0.75	40
AS0707	9.1	7.0	0.75	20
AS0807	10.4	8.0	0.75	20
AS0907	11.7	9.0	0.75	20
AS1007	13.0	10.0	0.75	20
AS1107	14.3	11.0	0.75	20
AS1210	15.6	12.0	1.00	20
AS1410	18.2	14.0	1.00	20
AS1610	20.8	16.0	1.00	10
AS1810	23.4	18.0	1.00	10
AS1805	23.4	18.0	0.50	10
AS1910	24.7	19.0	1.00	10
AS2210	28.6	22.0	1.00	10
AS2510	32.5	25.0	1.00	10
AS2505	32.5	25.0	0.50	10
AS3010	39.0	30.0	1.00	10
AS3510	45.5	35.0	1.00	10
AS4010	52.0	40.0	1.00	5
AS4510	58.5	45.5	1.00	5
AS5010	65.0	50.0	1.00	5
AS6010	78.0	60.0	1.00	5
AS7010	91.0	70.0	1.00	5

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	IEC 60811	> 14
Elongation (%)	IEC 60811	> 250
Heat ageing : Tensile (MPa) : Elongation (%)	IEC 60811 (100 °C x 168 hrs)	> 12 > 250
Heat shock (150°C x 1hr)	IEC 60811	No cracking
Cold elongation -15°C	ASTM D 2671	No cracking
Mass loss (100°C x 168) mg/cm^2	IEC 60811	< 1.5
Limiting oxygen Index (%)	IEC 60811	> 27 min
Hot deformation (95°C x 1hr) %	IEC 60811	< 50
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257	10^{13}

STANDARD COLOURS

BK RD WT BL YL GR

HEATSHRINK

THIN WALL

ATW

KEY FEATURES

- ***Shrink Ratio 2 : 1 (3 : 1 on request)***
- ***Operating temperature -55 °C to 125 °C***
- ***Minimum shrink temperature 70 °C***
- ***Operating voltage 600 / 1000 V***
- ***Thin wall heat shrinkable tubing***
- ***Cross-linked polyolefin***
- ***Flame retardant VW-1***
- ***Colours: standard colours, green/yellow stripe***
- ***UV stable colours available on request***

ATW is a halogen-free, flame-retardant tubing designed for sensitive, enclosed environments such as trains, ships, and underground mining. It minimises acid gas formation during fires, reducing potential damage to computers, PLCs, and electronic control equipment. Free of restricted substances like Cadmium (Cd), Lead (Pb), Hexavalent Chromium (Cr6), and Mercury (Hg), it meets stringent automotive industry standards.

APPLICATION

- Quick recovery at low temperatures makes it ideal for use in electronics and telecommunication applications.
- Its flame-retardant properties make this product ideal for automotive harness applications.
- Ships, trains and underground mining.
- Enclosed areas that contain sensitive electronic equipment and computers.

DIMENSIONS

Product	Inside Diameter (mm)		Layflat size (mm)	Suitable for wire sizes (mm^2)	Wall Thickness (mm)		Reel Length (m)
	Supplied	Recovered			Supplied	Recovered	
ATW1.2	1.2	0.6	2		0.18	0.36	200
ATW1.6	1.6	0.8	2.5		0.18	0.36	200
ATW2.4	2.4	1.2	3.8	0.5	0.18	0.36	200
ATW3.2	3.2	1.6	5	1	0.20	0.40	200
ATW4.8	4.8	2.4	7.5	1.5-2.5	0.23	0.46	100
ATW6.4	6.4	3.2	10	4-6	0.28	0.60	100
ATW9.5	9.5	4.8	15	10-16	0.30	0.60	100
ATW12.7	12.7	6.4	20	25-35	0.33	0.66	100
ATW16	16.0	8	25		0.38	0.76	100
ATW19	19.0	9.5	30	50-95	0.40	0.80	100
ATW25.4	25.4	12.7	40	120-185	0.45	0.90	50
ATW32	32.0	16	50		0.45	0.90	50
ATW38.1	38.1	19	60	240-300	0.50	1.00	50
ATW50.8	50.8	25.4	80	500-630	0.50	1.00	25
ATW76	76.0	38	120		0.65	1.30	25
ATW100	100.0	50.8	160		0.65	1.30	25

Custom colours available on request

GR BR OR GRY

TECHNICAL DATA

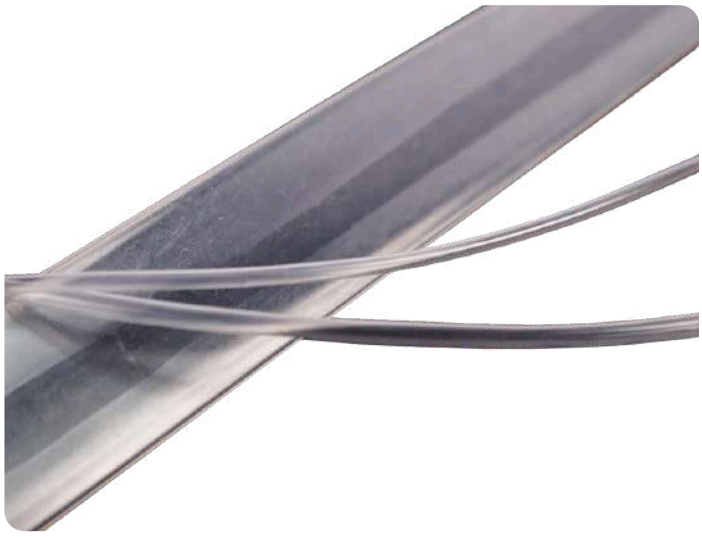
Properties	Test Methods	Typical Values
Tensile (MPa)	UL 224	> 10.4
Elongation (%)	UL224	> 200
Heat ageing: Tensile (MPa) : Elongation (%)	UL 224 (158 °C x 168 hrs)	> 7.3 > 100
Heat shock	UL 224 (250 °C x 4 hrs)	No cracks / dripping
Low temperature flexibility	ASTM D 2671 (4 hrs @ -35 °C)	No cracking
Copper stability	ASTM D 2671 (158 °C x 168 hrs)	Pass
RoHS (ppm)	IEC 62321(Cd, Pb, Cr^2, Hg)	< 200
Flammability	VW-1	Pass
Dielectric strength (kV/mm)	ASTM D 2671	> 15
Volume resistivity (Ω/cm)	ASTM D 257	10^{14}
Halogen test (ppm)	EN 114582 (BF, Ci, Fl, I)	< 800

STANDARD COLOURS

BK RD WT BL YL GYS

THIN WALL

ATW...CL



ATW...CL is a non-flame retardant clear tubing which has excellent oil resistance and clarity.

KEY FEATURES

- ***Shrink Ratio 2 : 1***
- ***Operating temperature -55 °C to 125 °C***
- ***Minimum shrink temperature 70°C***
- ***High chemical resistance***
- ***Good abrasion resistance***
- ***Excellent oil resistance***

APPLICATION

- Oil barrier in paper cable joints.
- Abrasion and oil resistant Heatshrink cover for write-on and wraparound labels.
- Clear retainer for shock absorbers on safety harnesses.
- Strain relief for electrical and electronic connections where visibility of connection is required.

DIMENSIONS

Product	Inside Diameter (mm)		Wall Thickness (mm)		Reel Length (m)
	Supplied	Recovered	Supplied	Recovered	
ATW1.2CL	1.2	0.6	0.18	0.36	200
ATW1.6CL	1.6	0.8	0.18	0.36	200
ATW2.4CL	2.4	1.2	0.18	0.36	200
ATW3.2CL	3.2	1.6	0.20	0.40	200
ATW4.8CL	4.8	2.4	0.23	0.46	100
ATW6.4CL	6.4	3.2	0.28	0.60	100
ATW9.5CL	9.5	4.8	0.30	0.60	100
ATW12.7CL	12.7	6.4	0.33	0.66	100
ATW16CL	16	8.0	0.38	0.76	100
ATW19CL	19	9.5	0.40	0.80	100
ATW25.4CL	25.4	12.7	0.45	0.90	50
ATW32CL	32	16	0.45	0.90	50
ATW38.1CL	38.1	19.1	0.50	1.0	50
ATW50.8CL	50.8	25.4	0.50	1.0	25
ATW76CL	76	38	0.65	1.30	25

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	UL 224	> 15
Elongation (%)	UL 224	> 300
Heat ageing : Tensile (MPa) : Elongation (%)	UL 224 (158 °C x 168 hrs)	> 12 > 250
Heat shock (250°C x 4hrs)	UL 224	Pass
Low temperature flexibility	ASTM D 2671 (4 hrs @ -35 °C)	No cracks / pass
Fluid resistance * (MPa)	ASTM D 2671	Tensile > 10
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257	10^{14}

THIN WALL

ATW...MIL

ATW...MIL is a highly flexible, fast shrinking, thermally stabilised, flame-retardant polyolefin tubing. Engineered for superior insulation and resistance to oil and chemicals in rigorous environments, it's ideal for military and rail applications.

KEY FEATURES

- ***Shrink ratio 2 : 1 (3 : 1 on request)***
- ***Continuous operating temperature -55 °C to 135 °C***
- ***Minimum shrink temperature 70 °C***
- ***In compliance with SAE-AMS-DTL-23053/5 Class 1 and 3***
- ***Flame retardant VW1***
- ***Colours: Black (other colours on request)***
- ***Corrosive resistant properties***
- ***Excellent oil and chemical resistance***

APPLICATION

- Its superior properties make it suitable for insulation and bundling of electrical wiring and harnesses.
- The shrinking temperature makes it ideal for sensitive applications.
- Suitable for protection of corrosion-proof metallic rods and tubes.
- Provides strain relief for connectors.
- Antenna protection.

DIMENSIONS

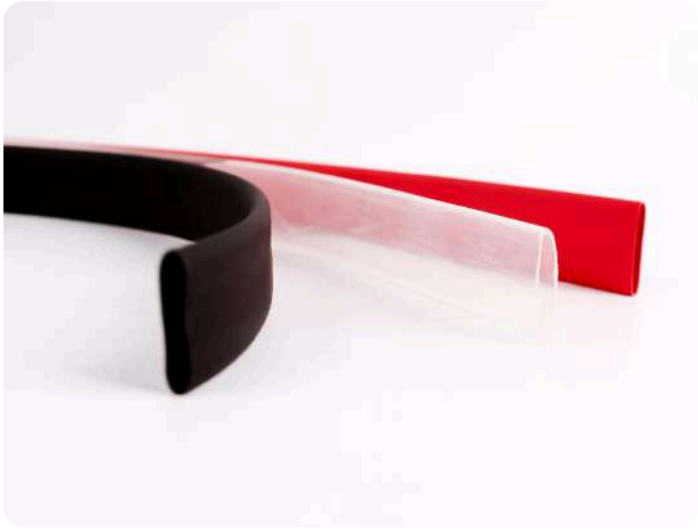
Product	Inside Diameter (mm)		Layflat Size	Wall Thickness (mm)	Reel Length (m)
	Supplied	Recovered	(mm)	Recovered	
ATW1.2BKMIL	1.2	0.6	1.8	0.41	200
ATW1.6BKMIL	1.6	0.8	2.5	0.42	200
ATW1.8BKMIL	1.8	0.9	2.8	0.42	200
ATW2.4BKMIL	2.4	1.2	3.7	0.51	200
ATW3.2BKMIL	3.2	1.6	5.0	0.51	200
ATW4.8BKMIL	4.8	2.4	7.5	0.51	100
ATW6.4BKMIL	6.4	3.2	10.0	0.64	100
ATW9.5BKMIL	9.5	4.8	14.9	0.64	100
ATW12.7BKMIL	12.7	6.4	19.9	0.64	100
ATW16BKMIL	16.5	8.2	25.1	0.7	100
ATW19BKMIL	19.1	9.5	30	0.76	100
ATW25.4BKMIL	25.4	12.7	39.8	0.89	50
ATW32BKMIL	32.0	15.9	50.2	0.89	50
ATW35BKMIL	35.0	17.5	54.9	1	50
ATW38.1BKMIL	38.1	19.1	59.8	1	50
ATW50.8BKMIL	51.0	25.4	80.1	1.15	25
ATW70BKMIL	70	35	109.9	1.6	25
ATW80BKMIL	80	40	125.6	1.7	25
ATW100BKMIL	102	50.8	160.2	1.4	25

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile strength (MPa)	ASTM D 2671/D638	≥10.4
Elongation (%)	ASTM D 2671/D638	≥ 200
Tensile strength after heat ageing (MPa)	175 °C x 168 hrs	≥ 7.3
Ultimate elongation after heat ageing (%)	175 °C x 168 hrs	≥ 100
Longitudinal change (%)	ASTM D 2671	-5% ~ +5%
Flammability	ASTM D 2671 C Method	VW-1
Voltage withstand (Dielectric)	UL 224, 2500 V, 60 s	No breakdown
Heat shock	UL 224, 250 °C, 4 hrs	No cracks, flowing or dripping
Dielectric strength (kV/mm)	ASTM D 2671	≥ 15
Volume resistivity (Ω/cm)	ASTM D 876	≥ 1 x 10^{14}
Copper stability	UL224,175 °C x 168 hrs	Pass
Low temperature flexibility	-55°C x 1 hr	No cracking

THIN WALL ADHESIVE LINED

ADW3



KEY FEATURES

- ***Shrink ratio 3 : 1***
- ***Operating temperature -45 °C to 125 °C***
- ***Minimum shrink temperature, 70 °C***
- ***Cross-linked polyolefin***
- ***Adhesive lined***
- ***Excellent flame retardant properties VW-1***
- ***Colours: Black/Clear (other colours on request)***
- ***Excellent oil and chemical resistance***
- ***In compliance with SAE-AMS-DTL-23053/4***

ADW3 is a co-extrusion of polyolefin and hot melt adhesive, this flame-retardant, highly flexible, thin-wall tubing is designed for applications demanding superior performance and reliability.

Being ROHS compliant guarantees that the product is free of restricted substances like Cadmium (Cd), Lead (Pb), Hexavalent Chromium (Cr6), and Mercury (Hg), which meets stringent automotive industry standards.

APPLICATION

ADW3 Standard

- Provides environmental sealing and insulation for electrical/ electronic connections.
- Enables flexible wire and cable bundling for automotive and marine harnesses.
- Fast recovery at low temperatures, ideal for electronics and telecommunications.

ADW3...CL

- Durable, abrasion and oil-resistant coating for identification labels, tags, and write-and-wrap labels (hydraulic hoses).
- Provides strain relief and environmental sealing for electrical/electronic connections requiring visibility.
- Engineered for applications where substrates must stay visible and protected from fluid ingress.

DIMENSIONS

Product	Inside Diameter (mm)		Wall Thickness (mm)	Reel Length (m)
	Supplied	Recovered	Recovered	
ADW331	3.2	1.0	0.90	100
ADW341	4.8	1.5	1.00	100
ADW362	6.4	2.0	1.25	100
ADW393	9.5	3.0	1.40	100
ADW3124	12.7	4.0	1.70	100
ADW3196	19.1	6.0	1.95	100
ADW3258	25.4	8.0	2.05	75
ADW33813	38.1	13.0	2.50	30
ADW35016	50 .8	16	2.80	15

TECHNICAL DATA

RoHS

Properties	Test Method	Typical Values
Cold impact	ASTM D 746-13 (-40 °C)	No cracking
Heat shock	(250 °C, 4 hrs)	No cracking / dripping
Sealing efficiency	200 °C, 3 min) Reheat (150 °C, 5 min)	No opening on reheat
Tensile strength (MPa)	ASTM D 638-10	12.8
Elongation at break (%)	ASTM D 638-10	390
Dielectric strength (kV/mm)	ASTM D 2671-09	19.7
Volume resistivity (Ω/cm)	ASTM D 257-07	$2x10^{15}$
Flammability	ASTM D 2671-09	Pass (self extinguishing)
Corrosion	(121°C, 16hrs)	No corrosion
Water absorbtion (%)	ASTM D 570-98 (23 °C, 24 hrs)	0.25
Heat resistance	(175 °C,168 hrs)	No cracks / dripping / flowing of outer walls
Longitudinal shrinkage (%)	UL224	0±5

THIN WALL ADHESIVE LINED

ADW4

KEY FEATURES

- ***Shrink ratio 4 : 1***
- ***Operating temperature -55 °C to 135 °C***
- ***Minimum/ fully recovered shrink temperature 90 °C to 110 °C***
- ***Good flame retardant properties***
- ***Good electrical and fungal resistant properties***
- ***Colours: Black***

APPLICATION

- Automotive wiring harnesses.
- Low voltage joints.
- Low voltage submersible connections.
- Waterproof strain relief connections.

ADW4 is a flame-retardant, adhesive-lined Heatshrink tubing designed for robust performance. Its high shrink ratio and exceptional sealing properties make it an ideal choice for reliable electrical and electronic connections in demanding applications.

DIMENSIONS

Product	Inside Diameter (mm)		Wall Thickness (mm)	
	Supplied	Recovered	Supplied	Recovered
ADW491BK	8.9	1.6	1.0	2.5
ADW4122BK	11	2.4	1.1	2.1
ADW4194BK	19	4.0	1.2	3.0

TECHNICAL DATA

RoHS

Properties	Test Methods	Typical Values
Tensile (MPa)	UL224	> 14
Elongation (%)	UL224	> 400
Heat ageing: Tensile (MPa) : Elongation (%)	UL224 (175 °C x 168 hrs)	> 12 > 250
Heat shock (25°C x 4hrs)	UL224	Pass
Low temperature flexibility	ASTM D 2671 (4 hrs@ -55 °C)	No cracking
Copper stability	ASTM D 2671 (175 °C x 168 hrs)	Pass
Flammability	VW-1	Pass*
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257	10^{14}

MARKER SLEEVES

ACPIT / AHMS

KEY FEATURES

- ***Shrink ratio 3 : 1***
- ***Minimum shrink temperature, 120 °C***
- ***Fuel and oil resistant, including JP-8 aviation fuel***
- ***Flame-retardant and UV-stable***
- ***Meets AMS-DTL 23053/6, SAE AS 81531, MIL-STD-202F, and NFF 00608 standards***
- ***Abrasion-resistant printing, even with pre-shrink contamination***
- ***Colours: Yellow, white, and perforated versions on demand***

AHMS is a military-grade, flattened, heat-shrinkable ladder marker sleeve, engineered for superior oil resistance, especially during extended high-temperature exposure. Designed for optimal compatibility with thermal transfer printers, ensuring clear, high-quality printing. ACPIT matches AHMS specifications but supplied in continuous rolls for versatility.

APPLICATION

- Identification requirements in military / defence, aerospace, rail and marine applications.

DIMENSIONS... AHMS

Product	Inside Diameter (mm)		Flat Width (w) mm	Wall Thickness (mm)		Standard Pack
	Supplied (min)	Recovered (max)	As Supplied	Supplied	Recovered	Qty. Pcs
AHMS2.4/YL- 50 - 3	2.79	0.79	5.0	0.24	0.57	250
AHMS3.2/YL - 50 - 3	3.64	1.06	6.3	0.24	0.61	250
AHMS4.8/YL - 50 - 3	5.26	1.59	8.9	0.25	0.67	250
AHMS6.4/YL - 50 - 3	6.92	2.36	11.5	0.25	0.71	250
AHMS9.5/YL - 50 - 3	10.2	3.18	16.7	0.26	0.77	250
AHMS12.7/YL - 50 - 3	13.5	4.75	21.8	0.27	0.80	250
AHMS19/YL - 50 - 3	20.1	6.35	32.2	0.28	0.84	250
AHMS25/YL - 50 - 3	26.7	8.47	42.5	0.28	0.86	250
AHMS38/YL - 50 - 3	39.8	12.9	63.2	0.29	0.89	250

DIMENSIONS... ACPIT

Product	Inside Diameter (mm)		Flat Width (w) mm	Wall Thickness (mm)		Standard Length
	Supplied (min)	Recovered (max)	As Supplied	Supplied	Recovered	(m)
ACPIT3.2YL	3.64	1.06	6.3	0.24	0.61	25
ACPIT4.8YL	5.26	1.59	8.9	0.25	0.67	25
ACPIT6.4YL	6.92	2.36	11.5	0.25	0.71	25
ACPIT9.5YL	10.2	3.18	16.7	0.26	0.77	25
ACPIT12.7YL	13.5	4.75	21.8	0.27	0.80	25
ACPIT19.1YL	20.1	6.35	32.2	0.28	0.84	25
ACPIT25.4YL	26.7	8.47	42.5	0.28	0.86	25
ACPIT38.1YL	39.8	12.9	63.2	0.29	0.89	25

TECHNICAL DATA

Properties	Test Method	Typical Values
Material	Thermally stable crosslinked polyolefin	
Operating temperature (°C)		-55 to 135
Tensile strength (MPa)	AMS-DTL-23053 : 1999 4.6.13 ASTM D 638-08, AMS-DTL- 23053/6 : 1999	17.0
Ultimate elongation (%)	AMS-DTL-23053 : 1999 4.6.13 ASTM D 638-08	567 (before ageing) 566 (after ageing)
Heat shock	AMS-DTL-23053 : 1999 4.6.8 MIL-DTL-23053/5C : 1996 (4 hrs, 225 °C)	No cracks, flowing or dripping
Low temperature flexibility	AMS-DTL-23053: 1999 4.6.7.1 AMS-DTL23053/6 : 1999 (4hrs, -30°C)	No cracking
Dielectric strength (kV/mm)	ASTM D2671-09 AMS-DTL 23053/6 : 1999	34.48
Volume resistivity (Ω/cm)	IEC92	$\geq 10^{14}$
Flammability	AMS-DTL-23053 : 1999 4.6.14 ASTM D2671-09 AMS-DTL-23053/6 : 1999 (2 min, 200 °C) UL94-203 Section 8	Pass V-0
Oil resistance	SAE AS 81531 : 1998 4.6.2 Transformer & hydraulic Oil (24 hrs, 24 °C)	Pass, printing was uniform, clear easily identfied at 356mm
Water absorption (%)	AMS-DTL-23053 : 1999 4.6 ASTM-D570-981 (2005) AMS-DTL-2305/6 : 1999 (24 hrs, 23 °C)	0.09

MEDIUM WALL

AMWA

AMWA are medium wall polyolefin tubes offering exceptional insulation and environmental sealing. With UV resistance and superior mechanical properties, engineered for reliable performance in challenging conditions.

KEY FEATURES

- ***Shrink ratio 3 : 1***
- ***Operating temperature -55 °C to 110 °C***
- ***Minimum full recovery temperature 120 °C***
- ***Exceptional impact and abrasion resistance***
- ***Excellent environmental and UV resistance***
- ***High electrical insulation properties***
- ***Colours: Black***

APPLICATION

- Inner and outer sleeves for joints from 1 kV to 36 kV.
- Strain relief / protection of connector components.
- Water proofing of cable and wire harnesses.
- Encapsulation and weatherproofing of irregular shapes.
- Cable outer sheath repairs.

DIMENSIONS

Product	Inside Diameter (mm)		Wall Thickness Recovered	Standard Length
	Supplied	Recovered	(mm)	(mm)
AMWA12/3	12	3	1.8	1200
AMWA22/6	22	6	2.2	1200
AMWA28/6	28	6	2.5	1200
AMWA33/8	33	8	2.5	1200
AMWA40/12	40	12	2.5	1200
AMWA55/16	55	16	2.7	1200
AMWA63/19	63	19	2.8	1200
AMWA75/22	75	22	3.0	1200
AMWA85/25	85	25	3.0	1200
AMWA95/25	95	25	3.0	1200
AMWA105/30	105	30	3.3	1200
AMWA115/34	115	34	3.3	1200
AMWA130/36	130	36	3.5	1200
AMWA140/42	140	42	3.5	1200
AMWA160/50	160	50	3.5	1200
AMWA180/60	180	58	3.5	1200

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	ASTM D 2671	≥ 14
Elongation (%)	ASTM D 2671	≥ 400
Heat ageing: Tensile (MPa) : Elongation(%)	ASTM D 2671 (150 °C, 168 hrs)	≥ 12 > 300
Water absorption (%)	ISO 62 (23 °C, 14 days)	< 0.15
Eccentricity (%)	ASTM D 2671	< 40
Copper stability	ASTM D 2671	Pass
ESCR (environmental stress crack resistance)	ASTM D 1693 (50 °C)	No cracking
Dielectric strength (kV/mm)	ASTM D 2671	≥18
Volume resistivity (Ω/cm)	ASTM D 257 / IEC 93	10^{13}
Density (g/cm^3)	ASTM D792	1.05
Longitudinal shrink (%)	UL224	≤10
Adhesive Lining		
Water absorption (%)	ISO 62	< 0.2
Softening point (°C)	ASTM E28	85 ± 5
Peel strength (N/cm)	DIN 30672	4
Resistance to fungus and decay	ISO 846	Pass

LOW VOLTAGE PRODUCTS

LOW VOLTAGE HEAT SHRINK JOINTS

ALVJ

KEY FEATURES

- ***Shrink Ratio 3 : 1***
- ***Operating temperature -55 °C to 110 °C***
- ***Minimum full recovery temperature 120 °C***
- ***Exceptional impact and abrasion resistance***
- ***Excellent environmental crack and UV resistance***
- ***Hot melt ensures an excellent water seal***
- ***High electrical insulation properties***
- ***Colour: Black***
- ***ALVSJ: Submersible***
- ***ALVJB: Budget (no roll springs and braid)***
- ***ALVJ...TS: Torque shear connector compatible***

ALVJ are low voltage heat shrink joints designed for both standard and submersible cables. The hot melt adhesive combined with the use of ABFM black mastic forms an excellent water seal. The outer sleeve is UV resistant and has excellent mechanical properties.

APPLICATION

- Voltage rating 600 / 1000 V.
- Easy and quick installation.
- Normal and submersible joints.
- Suitable for 2 to 4 core PVC SWA cables.

DIMENSIONS

Product	Cable Size: 2 to 4 core 600 / 1000 V	
	Min (mm^2)	Max (mm^2)
ALVJ1.5/4	1,5	4
ALVJ6/16	6	16
ALVJ16/25	16	25
ALVJ25/50	25	50
ALVJ50/95	50	95
ALVJ70/150	70	150
ALVJ120/185	120	185
ALVJ185/300	185	300

ALVJ...TS is available to accommodate torque shear connectors. (Connectors not included)

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	ASTM D 2671	> 14
Elongation (%)	ASTM D 2671	> 400
Heat ageing: Tensile (MPa) : Elongation (%)	ASTM D 2671 (150 °Cx168 hrs)	> 10 > 300
Water absorption (%)	ISO 62 (23 °C, 14 days)	< 0.15
Eccentricity (%)	ASTM D 2671	< 40
Copper stability	ASTM D 2671	Pass
ESCR (environmental stress crack resistance)	ASTM D 1693 (50 °C)	No cracking
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257 / IEC93	10^{14}
Density (g/cm3)	ASTM D 792	1.05
Longitudinal shrink (%)	UL224	≤10
Adhesive Lining		
Water absorbtion (%)	ISO 62	< 0.2
Softening point (°C)	ASTM E28	85 ± 5
Peel strength (N/cm)	DIN 30672	4
Resistance to fungus and decay	ISO 846	Pass

ALVJ...TS OPTIONAL EXTRA

LOW VOLTAGE HEAT SHRINK JOINTS

CLVJ

CLVJ are low voltage heat shrinkable cable joints designed to join 2 - 4 core, 1 kV PVC and XLPE cables. Core separators are included to further improve the electrical insulation properties. Each kit includes black filler mastic (ABFM) and this combined with the hot melt adhesive lining in the medium wall tube (AMWA) ensures an excellent water / moisture seal.

KEY FEATURES

- ***Shrink Ratio 3 : 1***
- ***Operating temperature -55 to 110 °C***
- ***Minimum recovery temperature 120 °C***
- ***Exceptional impact and abrasion resistance***
- ***Excellent environmental crack and UV resistance***
- ***Hot melt glue ensures excellent water seal***
- ***High electrical insulation properties***
- ***Colour: Black***
- ***Type tested and in compliance with BS EN50393 and NRS074-2***
- ***Complies to Eskom and eThekwini specifications***
- ***Mechanical torque shear connectors/ferrules included***

APPLICATION

- Voltage rating 600 / 1000 V.
- Easy and quick installation.
- Normal and submersible joints.
- Suitable for 2 to 4 core cables, 1.5 - 300 mm^2.

DIMENSIONS

Product	Cable Size: 2 to 4 core 600 / 1000 V	
	Min (mm^2)	Max (mm^2)
CLVJ1.5/2.5	1.5	2.5
CLVJ4/10	4	10
CLVJ16/25	16	25
CLVJ35/50	35	50
CLVJ70/95	70	95
CLVJ120/150	120	150
CLVJ185/240	185	240
CLVJ300	300	300

TEST	SUB-CLAUSE	Samples Types of Joints	REQUIREMENTS
		II	
		A1/B1	
AC voltage withstand (in air)	8.3	X	No Failure
Insulated resistance (in air)	8.4	X	Insulated resistance ≥50MΩ
Impact at ambient temperature	8.5	X	No Failure
Insulated resistance (immersed)	8.4	X	Insulated resistance ≥50MΩ
Heating cycle in air	8.6	X	63 Cycles
Heating cycle in water [b]	8.6	X	9 Cycles
Insulated resistance [b] (immersed)	8.4	X	Insulated resistance ≥50MΩ
Heating cycle in water	8.6	X	63 Cycles
AC voltage withstand (immersed)	8.3	X	No Failure
Insulated resistance (immersed)	8.4	X	Insulated resistance ≥50MΩ
Examination	8.8	X	To be recorded
Thermal short circuit (Earth fault) test		X	10kA for 1 second - No Failure

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	ASTM D 2671	> 14
Elongation (%)	ASTM D 2671	> 400
Heat ageing: Tensile (MPa) : Elongation (%)	ASTM D 2671 (150 °Cx168 hrs)	> 10 > 300
Water absorption (%)	ISO 62 (23 °C, 14 days)	< 0.15
Eccentricity (%)	ASTM D 2671	< 40
Copper stability	ASTM D 2671	Pass
ESCR (environmental stress crack resistance)	ASTM D 1693 (50 °C)	No cracking
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257 / IEC93	10^{14}
Density (g/cm3)	ASTM D 792	1.05
Longitudinal shrink (%)	UL224	≤10
Adhesive Lining		
Water absorbtion (%)	ISO 62	< 0.2
Softening point (°C)	ASTM E28	85 ± 5
Peel strength (N/cm)	DIN 30672	4
Resistance to fungus and decay	ISO 846	Pass

LOW VOLTAGE POLYURETHANE RESIN JOINTS

ARJP

KEY FEATURES

- ***Amber polyurethane resin***
- ***600 / 1000 V, 1.5 mm² – 300 mm² , 2 – 4 core cables***
- ***Two-year shelf life***
- ***Quick-setting in humid and cold conditions, with excellent insulation and water-blocking***
- ***Low-viscosity resin in transparent shatterproof polypropylene/ polycarbonate shells with easy-mix twin-pack***
- ***Exothermic temperature of 54 °C***

ARJP low-voltage resin straight-through joint and splicing kits are engineered for connecting 2–4 core PVC and XLPE cables. The two-component polyurethane (PU) resin fully solidifies, providing superior insulation and water-blocking performance.

Tested to BS EN50393:2015 test sequence for joints for solid extruded dielectric insulated cables and for transition joints between solid extruded dielectric insulated cables and impregnated paper insulated cables.

DIMENSIONS

Product	Min. Cable OD	Max. Cable OD	Mould Length	Cable Size
	(mm)	(mm)	(mm)	(mm^2)
ARJEP0	6	20	185	1.5 - 4
ARJP1	9	30	240	4 - 10
ARJP2	17	34	270	10 - 16
ARJP2.5	22	42	310	16 - 35
ARJP3	28	52	400	35 - 50
ARJP3.5	32	56	435	50 - 95
ARJP4	38	65	580	70 - 150
ARJP5	48	80	660	150 -240

TECHNICAL DATA

TEST	SUB-CLAUSE	Samples Types of Joints	REQUIREMENTS
		II	
		A1/B1	
AC voltage withstand (in air)	8.3	X	No failure
Insulated resistance (in air)	8.4	X	Insulated resistance ≥50 MΩ
Impact at ambient temperature	8.5	X	No failure
Insulated resistance (immersed)	8.4	X	Insulated resistance ≥50 MΩ
Heating cycle in air	8.6	X	63 Cycles
Heating cycle in water [b]	8.6	X	9 Cycles
Insulated resistance [b] (immersed)	8.4	X	Insulated resistance ≥50 MΩ
Heating cycle in water	8.6	X	63 Cycles
AC voltage withstand (immersed)	8.3	X	No failure
Insulated resistance (immersed)	8.4	X	Insulated resistance ≥50 MΩ
Examination	8.8	X	To be recorded
Thermal short circuit (Earth fault) test		X	10 kA for 1 second - No failure

LOW VOLTAGE EPOXY CLEAR RESIN JOINTS

ARJP...CL / CRJ

KEY FEATURES

- ***Clear epoxy resin***
- ***600 / 1000 V, 1.5 mm² – 300 mm², 2 – 4 core cables***
- ***Two-year shelf life***
- ***Quick-setting in humid and cold conditions, with excellent insulation and water-blocking***
- ***Low-viscosity resin in transparent shatterproof polypropylene/polycarbonate shells with easy-mix twin-pack***
- ***Exothermic temperature of 54°C***
- ***Type tested and in compliance with BS EN50393 and NRS074***
- ***In compliance with Eskom and Municipality specifications***

ARJP...CL / CRJ low-voltage resin straight-through joint and splicing kits are designed for connecting PVC and XLPE cables. The two-component, flame-retardant clear epoxy resin remains flexible, offering superior insulation and water-blocking properties.

Complies with BS EN50393:2015 Test sequence for joints for solid extruded dielectric insulated cables and for transition joints between solid extruded dielectric insulated cables and impregnated paper insulated cables.

DIMENSIONS

Product	Min. Cable OD	Max. Cable OD	Mould Length	Cable Size
	(mm)	(mm)	(mm)	(mm^2)
CRJ0	6	20	185	1.5 - 2.5
CRJ2	17	34	270	4 - 10
CRJ3	28	52	400	16 - 25
CRJ3.5	32	56	435	35 - 50
CRJ4	38	65	580	70 - 95
CRJ5	48	80	660	120 - 150
CRJ6	48	80	660	185 - 240

TECHNICAL DATA

TEST	SUB-CLAUSE	Samples Types of Joints	REQUIREMENTS
		II	
		A1/B1	
AC voltage withstand (in air)	8.3	X	No failure
Insulated resistance (in air)	8.4	X	Insulated resistance ≥50MΩ
Impact at ambient temperature	8.5	X	No failure
Insulated resistance (immersed)	8.4	X	Insulated resistance ≥50MΩ
Heating cycle in air	8.6	X	63 Cycles
Heating cycle in water [b]	8.6	X	9 Cycles
Insulated resistance [b] (immersed)	8.4	X	Insulated resistance ≥50MΩ
Heating cycle in water	8.6	X	63 Cycles
AC voltage withstand (immersed)	8.3	X	No failure
Insulated resistance (immersed)	8.4	X	Insulated resistance ≥50MΩ
Examination	8.8	X	To be recorded
Thermal short circuit (Earth fault) test		X	10kA for 1 second - No failure

OPTIONAL EXTRA

LOW VOLTAGE TERMINATIONS

ALVTO / CLVTO

KEY FEATURES

- ***Type tested, meets BS EN50393 and NRS074-2 standards***
- ***Operating temperature from -55 °C to 110 °C***
- ***Superior UV and environmental resistance for demanding conditions***
- ***Excellent electrical insulation and water-blocking properties***
- ***Fast, simple installation, energisable immediately***
- ***Complies with Eskom specifications***

CIP low-voltage heat shrink terminations are designed to withstand UV exposure and harsh environments. Kits can be tailored to include medium-wall tubing (AMWA), coloured thin-wall tubing (ATW), or thin-wall tubing (ATW...UV), with black filler mastic (ABFM) and water-blocked copper earth braid for a secure water seal.

Complies with BS EN50393:2015 Test sequence for joints for solid extruded dielectric insulated cables and for transition joints between solid extruded dielectric insulated cables and impregnated paper insulated cables.

DIMENSIONS

Product	Cable Size: 2 to 4 core 600 / 1000 V	
	Min (mm^2)	Max (mm^2)
CLVTO4/35	4	35
CLVTO25/70	25	70
CLVTO70/95	70	95
CLVTO50/150	50	150
CLVTO120/150	120	150
CLVTO95/185	95	185
CLVTO120/240	120	240
CLVTO185/240	185	240

TECHNICAL DATA

TEST	SUB-CLAUSE	Samples Types of Termination		REQUIREMENTS
		I	II	
		D1	D1	
Impulse voltage withstand at ambient temperature	8.2	-	X	No failure or flashover
AC voltage withstand (in air)	8.3	X	X	No failure
Insulated resistance (in air)	8.4	X	X	Insulated resistance ≥50 MΩ
Heating cycle in air	8.6	X	X	63 Cycles
Heating cycle in water (Crutch immersed)	8.6	X	X	63 Cycles
AC voltage withstand (Crutch immersed)	8.3	X	X	No Failure
Insulated resistance (Crutch immersed)	8.4	X	X	Insulated resislance ≥50 MΩ
Examination	8.8	X	X	To be recorded

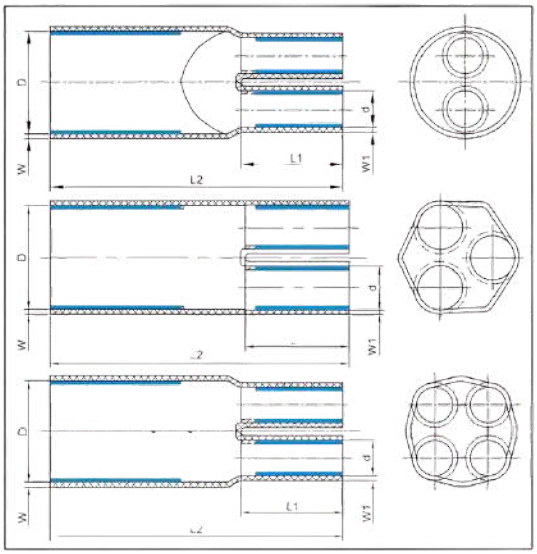
LOW VOLTAGE BREAKOUT BOOT

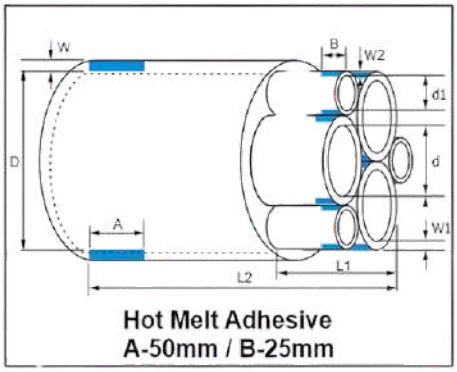
ALB

KEY FEATURES

- ***Excellent UV and environmental resistance***
- ***Adhesive lining offers reliable sealing properties***
- ***Excellent electrical and mechanical properties***
- ***Abrasion and corrosion resistance***
- ***Available in 2, 3, 4 and 6 cores***

ALB cable breakout boots (inner coated with a hot-melt adhesive) are manufactured from cross-linked polyolefin and designed to offer excellent sealing and insulating properties when used on a cable crutch.





TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile strength (MPa)	ASTM D 2671	≥13
Tensile strength (after thermal ageing MPa)	ASTM D 2671 / 120 °C, 168 hrs	≥10
Ultimate elongation (%)	ASTM D 2671	≥ 300
Ultimate elongation (after thermal ageing %)	ASTM D 2671 / 120 °C, 168 hrs	≥250
Dielectric strength (kV/mm)	IEC 60243	≥15 ≥20 (6Core)
Volume resistivity (Ω/cm)	IEC 60093	10^{14}
Water absorption (%)	IS0 62	≤1%
Operating temperature (°C)		-40 - 100
Minimum shrink temp. (°C)		110
Min. full shrink temp. (°C)		130

DIMENSIONS

Size (mm)	D(Body)		d - Large Finger		d - Small Finger		Length ±10%		Recovered Wall ±20%			
	Supplied	Recovered	Supplied	Recovered	Supplied	Recovered	L2-Total	L1-Finger	W (Body)	W1 (Large Finger)	W2 (Small Finger)	Cable Size (mm^2)
2 Cores												
ALB22/8-2	22	8	9	3.5			55	18	2.2	1.8		2.5-6
ALB45/15-2	45	15	18	6			110	30	2.2	2.0		16-50
ALB60/23-2	60	23	25	8			140	40	2.5	2.0		
3 Cores												
ALB38/15-3	38	15	14	4.5			90	22	2.2	2.0		25-50
ALB60/25-3	60	25	25	8			150	45	3.0	2.5		50-150
ALB80/38-3	80	38	35	14			170	45	3.5	3.0		95-300
4 Cores												
ALB40/15-4	40	15	14	4			95	20	2.0	2.0		2.5-35
ALB75/27-4	75	27	28	9			160	40	3.0	3.0		35-185
ALB90/37-4	90	37	32	11			170	50	3.5	2.5		50-300
ALB86/40-6	83	41	31	12	20	8	215	60	3.3	2.9	2.6	
ALB133/53-6	130	55	53	17	30	12	220	70	3.6	3.1	2.6	

LOW VOLTAGE TORQUE SHEARS

ATSL...LV / ATSC...LV

KEY FEATURES

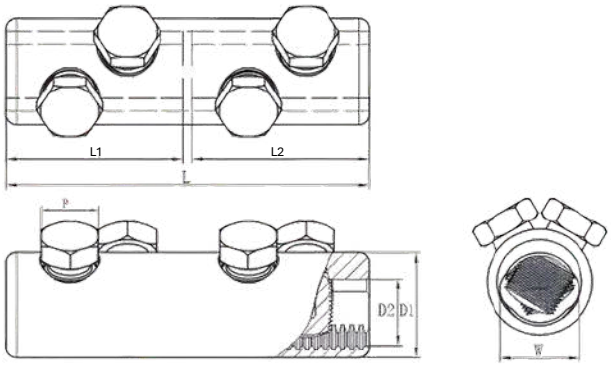
- ***Compatible with aluminium and copper cables***
- ***Reduces inventory requirements***
- ***Installs with standard socket or wrench, no crimping tools required***
- ***Solid palm and centre connector with anti-oxidising paste to block moisture***
- ***Grooved inner barrel enhances shear bolt action for reliable electrical connectivity***
- ***Once sheared, bolts stay locked permanently***
- ***Complies to IEC 61238-1 class A and B, BS EN 50483-6 2009***

ATSL...LV and ATSC...LV are mechanical torque shear lugs and connectors engineered for low-voltage applications. Featuring an aluminium electro-tin-plated body with aluminium shear bolts, accommodates conductor sizes from 1.5 mm^2 to 240 mm^2. Suitable for indoor and outdoor use, all palm holes are designed to fit M12 bolts.

ATST1

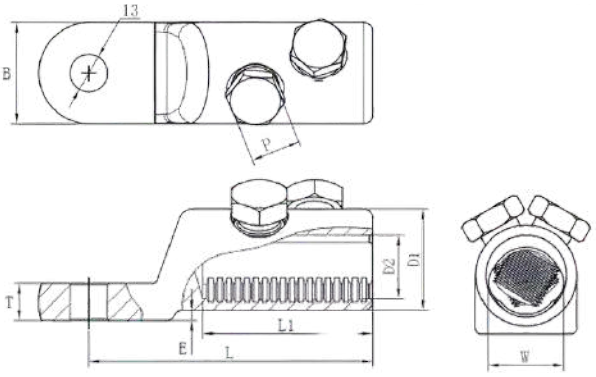
CONNECTORS

Product	Conductor Size (mm^2)	No. of Bolts	Dimensions (mm)					
			L1	L2	D1	D2	W	P
ATSC1.5/16B2LV	1.5 - 16	2	30.5	14	12	6		8
ATSC6/25/B2LV	6 - 25	2	40	16	16	9		8
ATSC6/50B2LV	6 - 50	2	37.5	16	18	10	12	10
ATSC16/95B2LV	16 - 95	2	55	24	25	14	16	13
ATSC25/150B2LV	25 - 150	2	70	30	28	17	21	17
ATSC50/240B4LV	50 - 240	4	120	56	35	22	26	19
ATSC120/300B4LV	120 - 300	4	140	68.3	38	24	29	22
ATSC185/400B6LV	185 - 400	6	160	78.3	42	26	32	22



LUGS

Product	Conductor Size (mm^2)	No. of Bolts	Dimensions (mm)								
			L1	L	D1	D2	T	P	B	E	W
ATSL6/25/12/1LV	6 - 25	1	19	40	15.5	9	6	8	24	2	
ATSL6/50/12/B1LV	6 - 50	1	24	50	19	10	6	10	24	2	12
ATSL16/95/12/B1LV	16 - 95	1	25	52	25	14	8	13	25	2	16
ATSL50/150/12/B1LV	50 - 150	1	38.8	71.6	28	17	10	17	28	2	21
ATSL50/240/12/B2LV	50 - 240	2	56	97	35	22	13	19	35	3	26
ATSL120/300/12/B2LV	120 - 300	2	68.3	105.7	38	24	14	22	38	4	29
ATSL185/400/12/B3LV	185 - 400	3	78.3	119	42	26	16	22	42	4	32



EXTRUSIONS AND PROFILES

SPIRAL BIND

ASB

ASB is a spiral-cut thermoplastic tubing designed for cable management. This spiral bind product organises and neatens cables and wires, making it ideal for both office and home environments.

KEY FEATURES

- ***Operating temperature -25 °C to 70 °C***
- ***Different wall thicknesses are available on request***
- ***Colours: Black and Natural, others on request***
- ***Easy to use***

APPLICATION

- Cable management of telecoms and data cables at the office and home.
- Cable harnesses, keeping individual wires together during assembly.
- Mechanical protection and colour coding for hydraulic and pneumatic hoses.

DIMENSIONS

Product	Supplied ID (mm)	Range (mm)	Wall Thickness (mm)	Roll Qty (m)
ASB3.2	3.2	3 - 6	0.6	30
ASB6.4	6.4	6 - 12	1	30
ASB12.7	12.7	12 - 20	1.2	30
ASB20	20	20 - 30	1.2	30

Custom colours available on request

RD BL

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	IEC 60811	> 14
Elongation (%)	IEC 60811	> 250
Heat ageing: Tensile (MPa) : Elongation (%)	IEC 60811 (100 °C x 168 hrs)	>12 > 250
Heat shock (150°C x 1hr)	IEC 60811	No cracking
Cold elongation -25°C	ASTM D 2671	No cracking
Hot deformation (95°C x 1hr) %	IEC 60811	< 50
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257	10^{14}
Designed for UV stability (on request)		10 years

STANDARD COLOURS

BK CL

PVC TUBING

PVC

KEY FEATURES

- ***Very flexible***
- ***Thin wall thickness***
- ***Colours: Black and white, other colours on request***
- ***Custom length cutting available upon request***
- ***Complies with SANS 1411 - Type S2 and D3 Test method SANS 60811***

APPLICATION

- All harnesses including automotive, slot machines, mining equipment, industrial equipment.
- Colour coding of cables.

This specially formulated polyvinyl chloride tubing features a thin wall, making it ideal for use in harness and electronic assembly applications requiring reliable performance.

DIMENSIONS

Product	ID (mm)	Nom. Wall Thickness (mm)
PVC1	1	0.4
PVC2	2	0.4
PVC3	3	0.4
PVC4	4	0.4
PVC5	5	0.4
PVC6	6	0.5
PVC7	7	0.5
PVC8	8	0.5
PVC9	9	0.5
PVC10	10	0.5
PVC11	11	0.5
PVC12	12	0.6
PVC14	14	0.6
PVC16	16	0.7
PVC18	18	0.7
PVC19	19	0.7
PVC20	20	0.8
PVC22	22	0.9
PVC25	25	0.9
PVC28	28	0.9
PVC30	30	0.9
PVC35	35	0.9

TECHNICAL DATA

Properties	Typical Values
Material	PVC (Polyvinylchloride)
Operating temperature (°C)	-15 to 70
Heatshock (°C)	150
Volume resistivity at 20 °C Min (Ω/cm)	2 x 10"

STANDARD COLOURS

BK WT

PVC GROMMET STRIP

AGS

KEY FEATURES

- ***Very Flexible***
- ***Colours: Black***
- ***Easy to use***

APPLICATION

- Easy push-fit installation fits various panel thicknesses without adhesives.

This edge protection grommet, crafted from flexible PVC, is designed to safeguard against sharp edges in applications such as panels and enclosures where cables are routed through cutouts.

DIMENSIONS

Product	Width (mm)			Height H (mm)	Material	Profile	Length (m)
	W1	W2	W3				
AGS1	0.5	1.8	5	6.3	PVC	A	30
AGS3	1.8	3	6.25	12.5	PVC Steel Re- Inforced	B	50
AGS4	4	5.5	10	16	PVC Steel Re- Inforced	C	50
AGS5	1.4	3	7.5	11	PVC	A	50

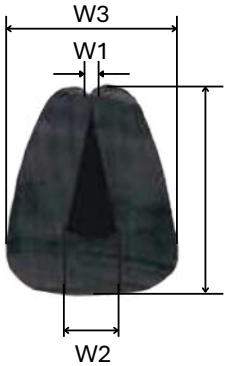
TECHNICAL DATA

Properties	Typical Values
Material	PVC (Flexible polyvinylchloride)
Operating temp. (°C)	-15 to 70
Heat shock (°C)	150

AGS4

AGS3

AGS1



PROTECTIVE CHANNEL

ACPC

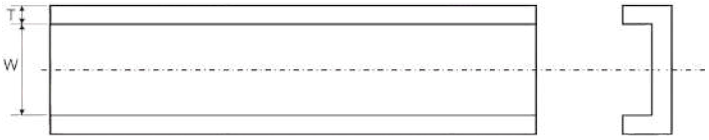
KEY FEATURES

- ***UV stable***
- ***Highly flexible***
- ***Colour: Black, other colours on request***
- ***Custom length cutting available upon request***
- ***Easy to use***

APPLICATION

- Works with stainless steel strapping or ties.
- ACPC channels prevent stainless steel ties from chafing the PVC outer sheath of wiring harnesses.

The ACPC stainless steel cable tie protective channel is crafted from UV-stable, flexible, heavy metal-free PVC. Designed for use with stainless steel cable ties, particularly those with a metal ball locking mechanism, this channel maintains tension when securing two hard surfaces, preventing damage to cable outer sheaths in applications subject to vibration or movement.



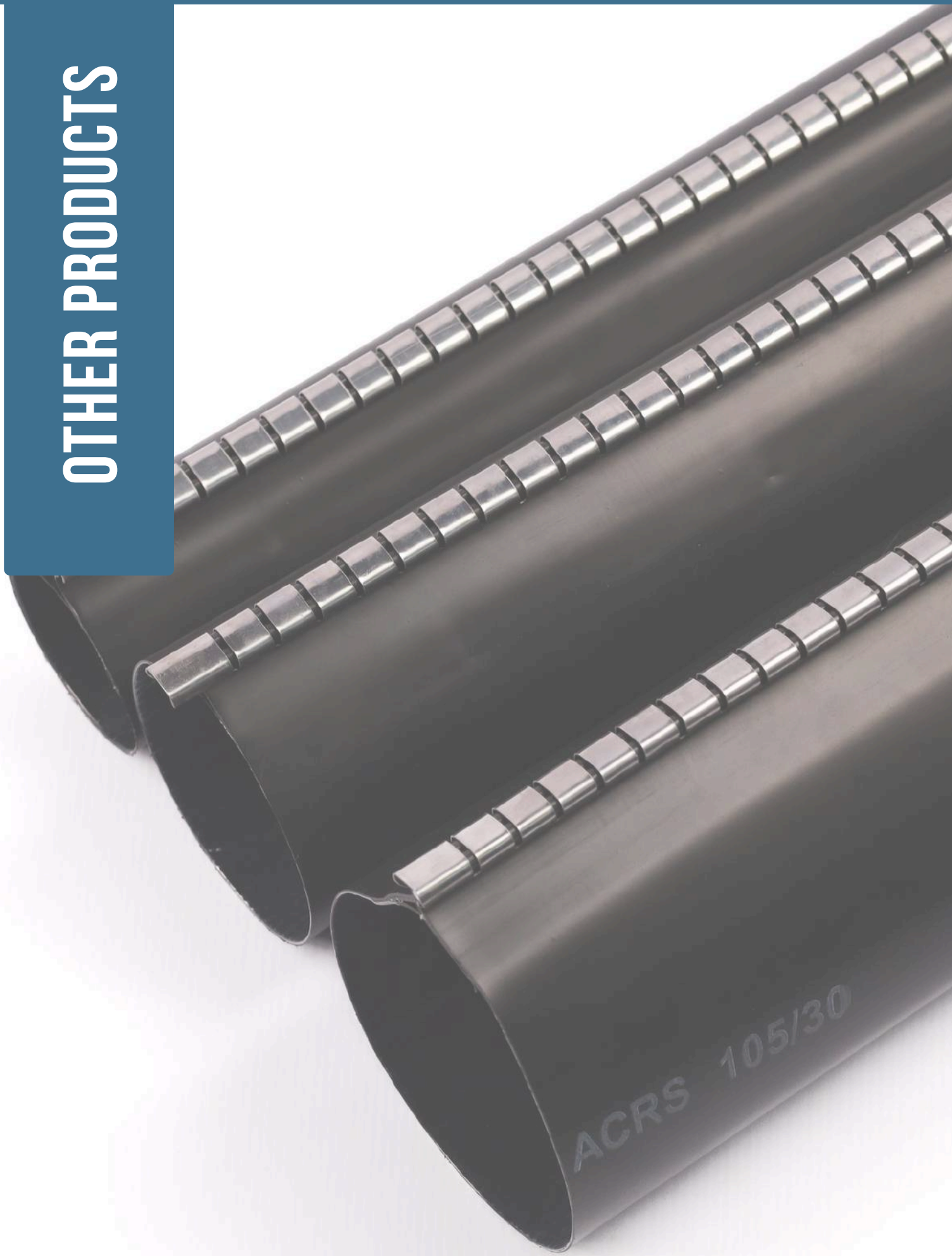
DIMENSIONS

Product	Wall Thickness (mm)	Width (mm)	Suitable for SS Strap (mm)	SS Tie Head Size (mm)	Reel Qty (m)
ACPC4/6P-UV	2	6.3	4.6	6	100
ACPC8/12.7P-UV	2	11.4	7.9	10.4	100
ACPC12/17P-UV	2	17	12.7	16	100

TECHNICAL DATA

Properties	Test Methods	Typical Values
Hardness	ASTM D 2240	Shore "A", 90
Operating temp. (°C)		-15 to 70
Tensile strength (MPa)	SANS 60811-1-1	16.1
Elongation (%)	SANS 60811-1-1	200
Heatshock (°C)	SANS 60811-3-1 (150 °C x 1 hr)	Comply
Volume resistivity (O/cm)	SANS 5526	2.4×10^{12}

OTHER PRODUCTS



TAPES

ASM

ASM self-amalgamating EPR rubber tape is non-adhesive but fuses to itself within hours, creating a seamless, waterproof, and electrically insulating layer. To apply, remove the separator film, lightly stretch, and wrap with a 50% overlap.

KEY FEATURES

- ***Self-amalgamating tape***
- ***Sealing, insulating, and waterproofing***
- ***Water, ozone and corona resistant***
- ***Suitable for use in LV and MV applications***
- ***High dielectric strength***
- ***Forms stable, long lasting joint***
- ***Excellent UV resistance***
- ***For in and outdoor applications***

APPLICATION

- Waterproofing of power cable joints
- Corrosion protection if wrapped onto metal pipes
- Temporary repairs to water hose and pipe leaks
- Soft non-slip handgrip in sports racquets and bicycles

TECHNICAL DATA

Properties	ASM18	ASM25	ASM50
Electrical resistivity (Ω/cm)	10^{14}	10^{14}	10^{14}
Dielectric power factor (%)	0.3	0.3	0.3
Dielectric strength (kV/mm)	> 25	> 25	> 25
Tensile strength (kg/mm)	0.2	0.2	0.2
Elongation at break (%)	> 600	> 600	> 600
Thickness (mm)	0.75	0.75	0.75
Width and length	18 mm x 10 m	25 mm x 10 m	50 mm x 10 m

AHT25

AHT25 is a hot melt tape designed to melt and flow upon heating, ensuring effective application.

KEY FEATURES

- ***Hot melt tape***
- ***Excellent environmental seal***
- ***Colour: Clear / transparent***

APPLICATION

- Suitable for use with heat shrink tubing and moulded components.
- Any application that requires sealing against moisture and dust.

TECHNICAL DATA

Properties	Typical Values
Material	Ethylenevinylacetate (EVA)
Melting point (°C)	> 95
Operating Temp. (°C)	- 50 to 105
Thickness (mm)	0.25
Width and length	25 mm x 50 m

CABLE REPAIR SLEEVE

ACRS

KEY FEATURES

- ***Shrink ratio 3 : 1***
- ***Operating temperature -35 °C to 105 °C***
- ***Minimum shrink temperature 120 °C***
- ***Excellent impact and abrasion***
- ***Glass fibre-reinforced version available upon request***

APPLICATION

- Permanent sheath repairs on both power and telecom cables.
- Temporary repairs to low pressure gas lines.
- Temporary repairs to low pressure water and sewerage pipes.

ACRS is a wrap-around sleeve designed for quick and efficient repair of power and telecom cables. Its hot melt adhesive lining creates a reliable waterproof seal.

DIMENSIONS

Product	Inside Diameter (mm)		Wall Thickness Recovered (mm)	Standard Length (mm)
	Supplied	Recovered		
ACRS50/15	50	15	3.0	1000
ACRS75/22	75	22	3.2	1000
ACRS105/30	105	30	3.5	1000
ACRS146/38	146	38	3.5	1000
ACRS188/55	188	55	3.5	1000

TECHNICAL DATA

Properties	Test Methods	Typical Values
Tensile (MPa)	UL 224	> 14
Elongation (%)	UL 224	> 300
Heat ageing: Tensile (MPa) : Elongation (%)	UL224 (135 °C x 168 hrs)	> 10 > 150
Water absorption (%)	ISO 62	< 0.15
Eccentricity (%)	UL 224	< 30
Mould resistance	ASTM D638 G21	No growth
ESCR	ASTM D 1693 (50 °C)	No cracking
Dielectric strength (kV/mm)	ASTM D 2671	> 20
Volume resistivity (Ω/cm)	ASTM D 257	10^{14}

BRAIDED SLEEVING

ABSP

KEY FEATURES

- ***Elasticity aids flexible wiring protection.***
- ***Flame retardant to enhance fire safety.***
- ***Wear resistance ensures lasting durability.***

APPLICATION

- Bundling of cables / wiring in electronic applications.
- Vehicle harnesses.
- Protection and bundling of tubing and industrial hoses.
- Panel / Switchboard manufacturing to route and protect cable, especially where movement is required.

ABSP polyester sleeving provides excellent abrasion resistance, is flame-retardant, and halogen-free. Its loosely woven design allows expansion up to 1½ times its original size, simplifying installation over cables, hoses, large connectors, and plugs.

DIMENSIONS

Product	Normal Size	Expandable Range		Reel Length (m)
		Min ID (mm)	Max OD (mm)	
ABSP3	3	2	3	50/100
ABSP4	4	2	4	50/100
ABSP5	5	4	7	50/100
ABSP6	6	2	8	50/100
ABSP8	8	7	12	50/100
ABSP10	10	8	13	50/100
ABSP12	12	10	15	50/100
ABSP14	14	12	18	50/100
ABSP16	16	14	20	50/100
ABSP20	20	17	24	50/100
ABSP25	25	22	30	50/100
ABSP30	30	28	40	50/100
ABSP40	40	33	52	50/100
ABSP50	50	45	90	50/100
ABSP60	64	45	105	50/100
ABSP76	76	64	120	50/100

Custom colours available on request

TECHNICAL DATA

Product	Typical Values
Material	Polyester (PET)
Operating temperature. (°C)	-50 to 150
Melting point (°C)	240
Flammability	VW-1
Approvals	UL, CSA, PFOS, REACH
Colour	Black (other colours on request)

BRAIDED SLEEVING

AHFR

KEY FEATURES

- ***High flame resistance***
- ***Elasticity aids flexible wiring protection***
- ***Wear resistance ensures lasting durability***

APPLICATION

- Bundling of cables / wiring in electronic applications.
- Vehicle harnesses.
- Protection and bundling of tubing and industrial hoses.
- Panel / Switchboard manufacturing to route and protect cable, especially where movement is required.

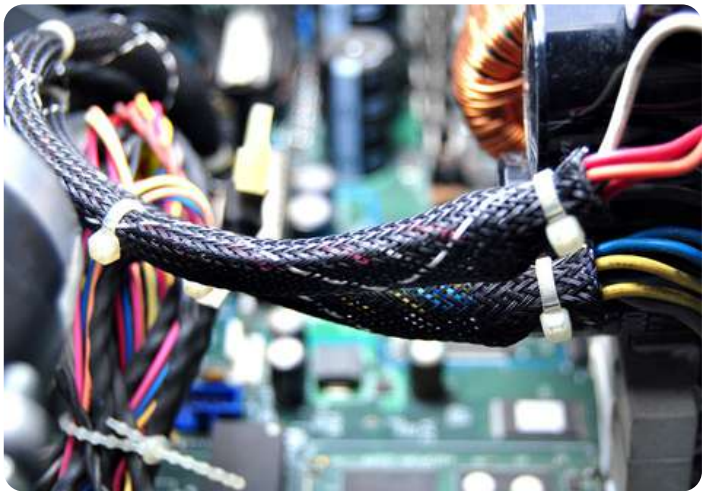
AHFR polyester sleeving offers flame retardant and abrasion resistance. The expandable braided design, crafted from modified polyester monofilament, allows it to stretch from its original size, making installation over cables, hoses, large connectors, and plugs.

DIMENSIONS

Product	Normal Size	Expandable Range		Reel Length (m)
		Min ID (mm)	Max OD (mm)	
AHFR3	3	2	3	100
AHFR4	4	2	4	100
AHFR5	5	4	7	100
AHFR6	6	2	6	100
AHFR8	8	7	12	100
AHFR10	10	8	13	100
AHFR12	12	10	15	100
AHFR14	14	12	18	100
AHFR16	16	14	20	100
AHFR20	20	20	24	100
AHFR25	25	22	30	100
AHFR30	30	28	40	100
AHFR40	40	33	52	100
AHFR45	45	35	75	50
AHFR50	50	45	90	50
AHFR60	60	45	105	50

TECHNICAL DATA

Product	Typical Values
Material	Polyester (PET)
Operating temperature (°C)	-50 to 150
Melting point (°C)	240
Flammability	UL94 V0
Approvals	UL, CSA, PFOS, REACH
Colour	Black (other colours on request)



BRAIDED SLEEVING

ABSPSC

Self closing braided wrap, woven from polyester monofilament. Its open structure simplifies modification, reassembly, and maintenance of wiring harnesses. Ideal for wires, cables, and hoses in high-speed trains, automobiles, automation equipment, and instruments, especially irregular wiring harnesses.

KEY FEATURES

- ***Abrasion resistance ensures durability against wear and tear***
- ***Softness provides protection for delicate wiring***
- ***Dust protection keeps wiring clean from debris***
- ***Convenience allows easy installation and maintenance***

APPLICATION

- Bundling of cables / wiring in electronic applications.
- Vehicle harnesses.
- Protection and bundling of tubing and industrial hoses.
- Panel / switchboard manufacturing to route and protect cable, especially where movement is required.

DIMENSIONS

Product	Expandable Range		Reel Length (m)
	Min ID (mm)	Max ID (mm)	
ABSPSC3	3	4	100
ABSPSC5	5	6	100
ABSPSC8	8	9	100
ABSPSC10	10	11	100
ABSPSC13	13	14	100
ABSPSC16	16	17	100
ABSPSC19	19	20	50
ABSPSC25	25	27	50
ABSPSC29	29	31	50
ABSPSC38	38	40	25
ABSPSC50	50	52	25

Custom colours available on request

TECHNICAL DATA

Product	Typical Values
Material	Polyester (PET)
Operating temperature (°C)	-50 to 150
Melting point (°C)	240
Fire resistance	N5510, NFPA130, Meet N5510, NFPA130
Approvals	RoHS
Colour	Black / Orange (other colours on request)

STANDARD COLOURS

BK OR

CABLE END CAPS

AEC

KEY FEATURES

- ***Shrink Ratio 2 : 1***
- ***Operating temperature -55 °C to 110 °C***
- ***Shrink temperature 120 °C***
- ***UV stable***
- ***Adhesive lined for excellent moisture seal***
- ***Colour: Black***

APPLICATION

- Seals ends of power and telecom cables.
- Caps hydraulic and pneumatic tubes to block dust and moisture ingress.

AEC are adhesive lined, cross-linked polyolefin end caps feature a flexible hot melt adhesive that ensures a watertight seal upon recovery, suitable for sealing power or telecom cable ends.

DIMENSIONS

Product	Inside Diameter (mm)		Wall Thickness Recovered (mm)	Cable Diameter (mm)
	Supplied	Recovered		
AEC14/5	14	5	2.0	5 - 12
AEC25/8	25	8	2.3	10 - 20
AEC40/15	40	15	3.0	18 - 32
AEC55/25	55	25	3.3	28 - 48
AEC75/35	75	35	3.5	45 - 70
AEC100/40	100	40	4.0	55 - 90
AEC120/60	120	60	4.0	65 - 110
AEC145/60	145	60	4.0	65 - 138

TECHNICAL DATA

Properties	Test Methods	Typical Values
Operating temperature (°C)	IEC 216	-55 to 110
Tensile (MPa)	ASTM D 638	> 14
Elongation (%)	ASTM D 638	> 400
Aged elongation (%)	150 °C x 168 hrs	> 300
Volume resistance (Ω/cm)	IEC 93	10^{14}
Dielectric strength (kV/mm)	IEC 243	> 15
Copper corrosion		None

HEAT GUNS AND BURNERS

ELECTRICAL HEAT GUNS

The Steinel range of robust, electronically controlled hot air guns featuring adjustable temperature and airflow for continuous operation are available for purchase from CiP. This professional tool is versatile for a wide range of hot air applications.

APPLICATION

- Shrinks heat shrink sleeves and welds plastics.
- Bends plastic pipes and solders plumbing joints.
- Strips paint, removes stickers, and loosens nuts and bolts.

KEY FEATURES

- ***Airflow rate adjustable in three stages***
- ***Electronic temperature control***
- ***9 adjustable temperature levels 80 °C to 630 °C (AHG2120E)***
- ***Adjustable airflow rate***
- ***Built for reliable continuous operation***
- ***Cool air stage for rapid cooling on nozzle change***
- ***3-year manufacturer warranty***

TECHNICAL DATA

Properties	Typical Values AHG2120E	Typical Values AHL1620S
Dimensions (L x W x H) mm	253 x 87 x 200	252 x 86 x 200
Output (W)	2200	1600
Voltage	220 - 230 V, 50 - 60 Hz	220 - 230 V, 50 - 60 Hz
Airflow (l/min)	150 - 500	350 - 450
Temperature (°C)	80 - 630	300 - 500
Weight (g)	838	717

SIEVERT GAS BURNERS

AGB38

AGB38PRO

The AGB SIEVERT gas burner's advanced, safe design makes it a key tool for craftsmen focused on efficiency and quality. Its windproof, soot-free yellow and blue flame is ideal for heat shrinking both MV and LV tubing and components. The design pulls in fresh air, keeping the burner head cool to prevent damage to heat shrinkable materials.

KEY FEATURES

- ***Exact and quick flame setting***
- ***High-quality brass parts***
- ***Double-molded soft grip for comfort and usability***
- ***Swivel hose fitting prevents hose drag***
- ***Working pressure: 2 bar***
- ***Burner diameter: 38 mm***
- ***Gas consumption: 1200 g/h at 2 bar***

TECHNICAL DATA

Properties	Typical Values AGB38	Typical Values AGB38PRO
Ignition type	No	Piezo
Flame adjustment	Yes	Yes
Additional fittings	No	Yes
Accessories	No	Hook and stand

SKILLS DEVELOPMENT

TRAINING & SKILLS DEVELOPMENT

PRACTICAL AND THEORETICAL TRAINING

Airshrink and CiP offer a range of training modules tailored to the requirements of our customers. These include courses designed for the novice, intermediate, and the professional cable jointer with a wealth of experience. Training offered ranges from a 1-day practical demonstration, to a full 5-day EWSETA accredited course covering theory and practical installation of various cable accessories.

- Training on cable jointing and termination of Low and Medium Voltage cables is aligned to the requirements of SANS 10198:
  - Part 9 - Cables up to 3.3 kV
  - Part 10 - Paper insulated cables not exceeding 33 kV (PILC)
  - Part 11 - Screened polymeric insulated cables not exceeding 33 kV (XLPE)
- Practical and theoretical training is available as per SAQA unit standards ID 259187 and 259189.
- Training can be arranged at CiP's training centre in Klipriver Business Park or at the customer's premises.
- Course duration depends on the requirements of the customer and is generally between 2 to 5 days for training while demonstrations can be done in 1-day.
- Our training is presented by well-experienced cable jointers and engineers with many years of experience in this field.
- Trainees receive individual attention and are assessed by registered assessors.
- Where required, assessments are moderated by registered and accredited moderators.
- Certificates issued will either be a certificate of attendance or a certificate of competence, based on the course selected and the attendee’s performance.
- All material used meets the requirements of SANS 1332.

DESIGN INFORMATION

BUSBAR SIZING GUIDE

Busbar Sizes (mm)	Heatshrink Code (Low Voltage)	Heatshrink Layflat Size (mm)	Airshrink Code (Low Voltage)	Airshrink Dimensions Expanded ID (mm)
12 x 1.5 / 12.5 x 3	ATW12.7	20	AS0807	10.40
14 x 4	ATW19	30	AS0907	11.70
15 x 3	ATW19	30	AS1007	13.00
16 x 3	ATW19	30	AS1107	14.30
16 x 4	ATW19	30	AS1210	15.60
20 x 3 / 20 x 4 / 20 x 6	ATW19	30	AS1410	18.20
25 x 3	ATW25.4	40	AS1610	20.80
25 x 5 / 25 x 6 / 25 x 6.3	ATW25.4	40	AS1810	23.40
30 x 3 / 30 x 6 / 30 x 6.3	ATW38.1	60	AS1910	25.70
30 x 10 / 30 x 12 / 31.5 x 6.3	ATW38.1	60	AS2210	28.60
40 x 4 / 40 x 6 / 40 x 6.3 / 40 x 10	ATW38.1	60	AS2510	32.50
50 x 6 / 50 x 6.3	ATW38.1	60	AS3010	39.00
50 x 10 / 50 x 12 / 50 x 16 / 60 x 3 / 60 x 6	ATW50.8	80	AS3510	45.50
60 x 10 / 63 x 6 / 63 x 6.3	ATW80.5	80	AS4010	52.00
80 x 6 / 80 x 8 / 80 x 10 / 80 x 12	ATW76	120	AS5010	65.00
100 x 6 / 100 x 10 / 100 x 12 / 100 x 16	ATW76	120	AS6010	78.00
120 x 10 / 120 x 16.5	ATW100	160	AS7010	91.00

CABLE SIZING GUIDE

Cable Size (mm^2)	Approx. Core OD (mm) Including Insulation (LV)	Heatshrink Size (ID)	Heatshrink Layflat Size (mm)
0.5	2.1	2.4	3.8
1	2.6	3.2	5
1.5	3.2	4.8	7.5
2.5	3.7	4.8	7.5
4	4.5	6.4	10
6	5.1	6.4	10
10	6.0	9.5	15
16	6.9	9.5	15
25	9.0	12.7	20
35	10.8	12.7	20
50	12.6	19	30
70	14.5	19	30
95	16.5	19	30
120	18.5	25.4	40
150	22.0	25.4	40
185	23.5	25.4	40
240	27.0	38.1	60
300	30.0	38.1	60
500	36.5	50.8	80
630	42.8	50.8	80

- The information detailed above is intended as a guide only.
- Insulation outer diameter depends on cable rating and manufacturer with the above guide referring to 600 / 1000 V PVC insulated cable manufactured to SANS 1507.

DESIGN INFORMATION

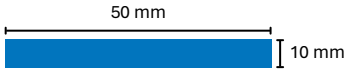
1. BUSBAR

How to calculate the correct size of Airshrink or Heatshrink for your busbar dimensions.

1. Add all four sides.
2. Divide by 3.1415 (π).
3. This result gives the actual OD (outer diameter) of your busbar and thus the min ID (inner diameter) that your Airshrink or Heatshrink needs to shrink down to.
4. Add 10% to this result to allow sufficient clearance. This will ensure that your Airshrink or Heatshrink slips over easily.

Example

Busbar Size: 50 x 10
= (50+50+10+10)/3.1415
= 120/3.1415
= 38.198 mm + 10%
= 42.02 mm

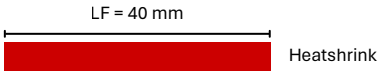


This is the most suitable diameter (ID) for your application. Now choose the Airshrink/Heatshrink size that suits this busbar size. (AS3510 or ATW50.8)

2. LAYFLAT TO DIAMETER

Heatshrink sizes are given as the internal diameter (ID) as supplied and **NOT** the layflat (LF) size. If you are not sure of the correct ID you can calculate as follows:

Example:
Heatshrink size: 25.4 mm
ID =(LFx2)/3.1415 (π)
=(40x2)/3.1415
= 80/3.1415
= 25.46 mm



3. CIRCUMFERENCE TO LAYFLAT

To calculate the Layflat if you have the diameter (D) it can be done as follows:

Example:
Heatshrink Size: 25.4 mm
Circumference (C) is the same as 2 x Layflat (LF)

C = 3.1415xID
2LF = 3.1415xID
2LF = 3.1415x25.4
2LF = 79.79
LF = 79.79 / 2
= 39.9 mm

4. IMPERIAL TO METRIC

Inch	1/32"	3/64"	1/16"	5/64"	3/32"	1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"
mm	**0.8**	**1.2**	**1.6**	**2**	**2.4**	**3.2**	**4.8**	**6.4**	**9.5**	**12.7**	**15.9**	**19.1**	**25.4**	**31.8**	**38.1**	**50.8**	**76.2**	**101.6**

GENERAL TIPS ON SELECTING, APPLYING, AND SHRINKING HEATSHRINK

1. SELECTION:

- Confirm the OD (outside diameter) of the cable/object you need to cover.
- Decide on the wall thickness you require. Based on the thickness, you may need to choose one size up or select a heat shrink with a higher shrink ratio. Standard thin wall Heatshrink has a 2:1 ratio which means it will shrink to half its supplied size. (Example: 25.4 will shrink to 12.7 mm ID (inside diameter).
- **Take note that all Heatshrink sizes are given as the ID and not in mm^2 or layflat (see pages 43 & 44).** Should you not have the ID refer to page 44 and see the calculation necessary to determine the ID.
- When selecting Heatshrink, ensure it has a minimum shrinkage of 20% and a maximum of 80% to ensure the product's performance aligns with the specified requirements.
- Will the Heatshrink be applied to the cable before or after crimping a lug or ferrule? If applied afterward, verify that the Heatshrink size can fit over the lug/ferrule and still shrink to the cable's outer diameter. If not, choose a Heatshrink with a higher shrink ratio.
- Additional factors to consider include:
  - Do you need a moisture-sealed or watertight connection? This requires adhesive-lined Heatshrink (refer to pages 15–17)**.**
  - Will the Heatshrink be exposed to cleaning fluids, fuels, oils, or harsher chemicals? Consider diesel-resistant, Kynar, Viton, or Teflon Heatshrink.
  - What are the minimum and maximum operating temperatures? Diesel-resistant, Kynar, and Teflon materials typically support higher temperatures, up to 250 °C.
  - Are you covering labels that must remain visible and moisture-free after application? Clear Heatshrink options, including adhesive-lined, are available.
  - Are there specific approvals or specifications needed, such as Military, Halogen-Free, RoHS, Flame Retardant, REACH, UL, IEC, or UV stability?
  - What is the operating voltage?
  - Do you require high abrasion properties?
  - Standard or specialised colours. (Standard-Black, Clear, Red, White, Blue, Yellow, Green/Yellow).

2. APPLICATION AND SHRINKING:

- Maintain a clean work area and ensure cables or components are free of contaminants.
- When cutting Heatshrink to size, consider the following:
  - Use a sharp knife or guillotine to ensure clean cuts, as jagged edges may cause splitting or tearing during heating. If trimming is needed post-shrink, allow the Heatshrink to cool completely first.
  - In order to allow for continuation of insulation determine a suitable overlap.
  - Cut slightly longer to accommodate longitudinal shrinkage, **which may be up to 5%.**
- Position the Heatshrink sleeve centrally over ferrules or objects.
- Before applying heat:
  - Review the installation instructions for any updates or changes.
  - Ensure all other Heatshrink or components are placed on the cable and that ferrules/lugs are crimped or connected.
  - Remove all sharp edges that may cause the Heatshrink to split.
  - Abrade the surface (if required) and ensure it is clean and degreased.
  - If using an adjustable heat gun, verify the correct temperature setting to prevent uneven shrinkage, improper insulation, damage, or air entrapment.
- Begin shrinking from the centre, moving outward circumferentially until the adhesive melts, the sleeve achieves a uniform wall thickness, and has fully recovered.
- For long Heatshrink tubing (e.g., on cables), start at one end and progress to the other.
- For thicker wall Heatshrink requiring higher shrink temperatures, a propane gas torch may be used, keeping in mind:
  - Work in a well-ventilated area.
  - Use a clean-burning torch (e.g. propane) to avoid conductive contaminant deposits.
  - Adjust to a soft blue flame with an orange/yellow tip, avoiding a pencil-like blue flame.
  - Move the torch continuously to prevent overheating and ensure proper shrinkage.
- Keep the following in mind during the shrinking process*:*
  - Keep the heat aimed in the shrink direction to pre-heat the material.
  - Apply the heat circumferentially around and outwards on all tubes, this ensures correct heat application to achieve a consistent wall thickness.
  - Follow manufacturer guidelines for shrinking tubing and moulded parts.
  - After shrinking, verify the tubing is smooth and free of wrinkles, as wrinkles suggest improper heating or air entrapment, potentially leading to failure in medium voltage (MV) applications overtime.
- Allow the Heatshrink to cool before applying mechanical stress or trimming to size.

CONTACT
INFORMATION AND MORE

GET IN TOUCH

Whether you have a question, need advice, or want to place an order, our team is here to help. Reach out to us and we'll make sure you receive the professional support you need, quickly and easily.

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For a more comprehensive range of LV and MV cable accessories, please refer to our CiP catalogue online. Alternatively, you can request a copy directly from us, simply contact your sales representative for assistance.

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