

THIN WALL TUBING



ACS-50
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ALST
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MINI BOX
AGP-55
ACS-55NS/AZH-NS
AHPVC

THIN WALL TUBING SELECTION GUIDE

Part number	Description	Ratio	Temperature	Zero Halogen	RoHS	UL VW1	Flame retardant	Waterproof	Page
ACS-50	Shiny surface (black), Crystal (Clear) non flame retardant	2:1	105°C	Yes	Yes	No	No	No	9
ACS-51	Matte surface, non flame retardant polyolefin tubing	2:1	105°C	No	Yes	No	No	No	10
ACS-55	125°C polyolefin tubing excellent general properties	2:1	125°C	No	Yes	Yes	Yes	No	11
AYG-55/AYG-300	Yellow-green high quality polyolefin tubing	2:1/3:1	135°C	No	Yes	Yes	Yes	No	12
ACS-100	135°C very flexible, high quality polyolefin tubing	2:1	135°C	No	Yes	Yes	Yes	No	13
ACS-300	125°C excellent general properties, offering 3:1 shrinking ratio	3:1	125°C	No	Yes	Yes	Yes	No	14
ACS-4000	135°C excellent general properties, offering 4:1 shrinking ratio	4:1	135°C	No	Yes	Yes	Yes	No	15
AZH-100	105°C Zero-halogen tubing	2:1	105°C	Yes	Yes	No	Yes	No	16
ALST	Very low shrinking temperature and high flexibility	2:1	125°C	Yes	Yes	No	MVSS	No	17
AUTW	125°C Ultra thin wall polyolefin tubing	2:1	125°C	No	Yes	Yes	Yes	No	18
Mini Box	Different tubings available in mini-box dispensers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19
AGP-55	125°C polyolefin tubing specially designed for gas pipe applications	2:1	125°C	No	Yes	No	Yes	No	20
ACS-55NS	125°C non heat-shrink polyolefin tubing	NS	125°C	No	Yes	Yes	Yes	No	21
AZH-NS	Zero halogen non heat-shrink tubing	NS	105°C	Yes	Yes	No	Yes	No	21
AHPVC	Flat hard PVC thin wall tubing	2:1	85°C	No	No	No	No	No	22

THIN WALL TUBING

ACS-50

Shiny surface, non-flame retardant



Applications

General purpose polyolefin tubing. Economical and halogen free which makes it ideal product when flame retardant properties are not needed.

Features

Conforms to substrates more uniformly and with less longitudinal change than most PVC-based tubing. Transparent version offers **exceptional transparency** to protect marked surfaces.

Various

Operating temperature: -55°C to + 105°C
 Minimum shrink temperature: 80°C
 Minimum fully recovery temperature: 100°C
 RoHs compliant
 Standard colors:
 Shiny-black, crystal-clear. Other colors available on request.

Technical data

Property	Test Method	Typical Data
Operating temperature	UL 224	-55°C to + 105°C
Tensile strength	ASTM D 2671	>10.4 MPa
Elongation at break	ASTM D 2671	>500%
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	ASTM D 2671	<30%
Flammability	-	Flammable
Dielectric strength	IEC 93	>25 KV/mm
Volume resistance	ASTM D 2671	>10 ¹⁴ Ω.cm
Copper stability	ISO 62	Pass

Dimensions

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
ACS-50					
3/64	1.2	0.18	0.50	0.33	150
1/16	1.6	0.18	0.75	0.36	150
3/32	2.4	0.25	1.25	0.44	150
1/8	3.2	0.25	1.50	0.44	150
3/16	4.8	0.25	2.50	0.56	75
1/4	6.4	0.25	3.00	0.56	75
3/8	9.5	0.30	5.00	0.56	75
1/2	12.7	0.35	6.50	0.65	50
5/8	15.9	0.35	8.00	0.69	50
3/4	19.1	0.40	10.00	0.89	30
1	25.4	0.45	12.00	0.90	30
1 1/4	31.8	0.45	15.00	0.90	30
1 1/2	38.1	0.50	20.00	1.00	30
2	50.8	0.50	25.00	1.00	30
3	76.2	0.55	40.00	1.20	15
4	101.6	0.55	50.00	1.30	15
5	126.0	0.55	60.00	1.30	15
6	150.0	0.55	75.00	1.30	15

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
 Special sizes (up to 6 inches) and other special features available on request.

THIN WALL TUBING

ACS-51

Matte surface, non flame retardant



Applications

ACS-51 is an environment friendly commercial grade polyolefin tubing. It is designed for simple but effective insulation on wire harnesses and low voltage bus bars where economic solutions are needed. The material allows easy installation when placed over PVC wires and copper bus bars.

Features

Good electrical insulation. Excellent longitudinal shrink properties.

Various

Operating temperature: -55°C to + 105°C
 Minimum shrink temperature: 80°C
 Minimum fully recovery temperature: 100°C
 RoHs compliant
 Standard colors:
 Black, clear. Other colors available on request.



Technical data

Property	Test Method	Typical Data
Operating temperature	UL 224	-55°C to + 105°C
Tensile strength	ASTM D 2671	>10.4 MPa
Elongation at break	ASTM D 2671	>500%
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	ASTM D 2671	<30%
Flammability	-	Flammable
Dielectric strength	IEC 93	>25 KV/mm
Volume resistance	ASTM D 2671	>10 ¹⁴ Ω.cm
Copper stability	ISO 62	Pass

Dimensions

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
ACS-51					
3/64	1.2	0.18	0.50	0.33	150
1/16	1.6	0.18	0.75	0.36	150
3/32	2.4	0.25	1.25	0.44	150
1/8	3.2	0.25	1.50	0.44	150
3/16	4.8	0.25	2.50	0.56	75
1/4	6.4	0.25	3.00	0.56	75
3/8	9.5	0.30	5.00	0.56	75
1/2	12.7	0.35	6.50	0.65	50
5/8	15.9	0.35	8.00	0.69	50
3/4	19.1	0.40	10.00	0.89	30
1	25.4	0.45	12.00	0.90	30
1 1/4	31.8	0.45	15.00	0.90	30
1 1/2	38.1	0.50	20.00	1.00	30
2	50.8	0.50	25.00	1.00	30
3	76.2	0.55	40.00	1.20	15
4	101.6	0.55	50.00	1.30	15
5	126.0	0.55	60.00	1.30	15
6	150.0	0.55	75.00	1.30	15

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
 Special sizes (up to 6 inches) and other special features available on request.



Applications

Perfect for numerous electronic, automotive and consumer goods. Suitable for electrical insulation, protection of components, strain relief, cable bundling, identification.

Features

Speciality designed formula approved by **UL**. Flexible and flame-retardant. Free from toxic heavy metal and harmful substances such as PBB's, PBBO's, PBBE's. Offering low shrinking temperature.

Various

Operating temperature : -55°C to +125°C
Minimum shrink temperature: 70°C
Minimum fully recovery temperature: 100°C

Approvals: UL 224 125°C VW-1 600 V (E204071)

Material: No PBB's, PBBO's, or PBBE's. Lead content < 10 ppm.
Cadmium content < 5 ppm. RoHs compliant

Standard colors: Black, red, blue, yellow, green, white. Other colors available on request.

Technical data

Property	Test Method	Typical Data
Operating temperature	UL 224	-55°C to +125°C
Tensile strength	ASTM D 2671	>14 MPa
Ultimate elongation	ASTM D 2671	400%
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	ASTM D 2671	<30%
Heat aging		
Tensile strength	158°C/168 hrs.	>12MPa
Ultimate elongation		>350%
Flammability	VW-1	Pass
Dielectric strength	IEC 243	>20 KV/mm
Volume resistance	IEC 93	>10 ¹⁴ Ω.cm
Copper stability	UL 224	Pass

Dimensions

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
ACS-55					
3/64	1.2	0.18	0.60	0.33	150
1/16	1.6	0.18	0.80	0.36	150
3/32	2.4	0.25	1.20	0.44	150
1/8	3.2	0.25	1.60	0.44	150
3/16	4.8	0.25	2.40	0.56	75
1/4	6.4	0.25	3.20	0.56	75
3/8	9.5	0.30	4.80	0.56	75
1/2	12.7	0.35	6.40	0.65	50
5/8	15.9	0.35	8.00	0.69	50
3/4	19.1	0.40	9.50	0.80	30
1	25.4	0.45	12.70	0.90	30
1 1/4	31.8	0.45	15.90	0.90	30
1 1/2	38.1	0.50	19.10	1.02	30
2	50.8	0.50	25.40	1.02	30
3	76.2	0.55	38.10	1.20	15
4	101.6	0.55	50.80	1.30	15
5	126.0	0.55	63.50	1.30	15
6	150.0	0.55	76.00	1.30	15

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
Special sizes (up to 6 inches) and other special features available on request.

THIN WALL TUBING

AYG-55 / AYG-300

Dual colored flame retardant 2:1, 3:1



Applications

Used to identify electrical grounding as well as protecting and insulating wires harnesses of light cabling. Easy to mark for additional identification.

Features

Resistant to common fluids and solvents. Flexible and flame retardant. Free from harmful substances as PBB's, PBBO's, PBBE's and toxic heavy metals.

Various

Operating temperature: -55°C to +135°C
 Minimum shrink temperature: 70°C
 Minimum fully recovery temperature: 100°C
 RoHs compliant
 Approvals:
 UL 224 125°C VW-1 600 V (E204071).
 Meet SAE-AMS-DTL-23053/5 Class 1&3.

Standard color:
 Yellow & Green striped

Technical data

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	14MPa
Elongation at break	ASTM D 2671	800%
Tensile strength after aging (175°C/168hrs.)	ASTM D 2671	14MPa
Elongation after aging (175°C/168hrs.)	ASTM D 2671	350%
Flammability	UL 224 VW-1 SAE-AMS-DTL-23053/5	Pass
Heat shock (250°C/4hrs.)	ASTM D 2671	No cracking
Cold bend test (-55°C/4hrs.)	ASTM D 2671	No cracking
Dielectric strength	ASTM D 150	20kV/mm
Volume resistance	ASTM D 876	> 10 ¹⁴ Ω.cm
Copper corrosion	UL 224	Pass
Water absorption	ASTM D 570	0.15%
Chemical resistance	SAE-AMS-DTL-23053/5	Pass
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	UL 224	<30%

Dimensions

Shrink ratio 2:1

Shrink ratio 3:1

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Inside Diameter (max)	Inside Diameter (min)	Wall Thickness (min)	
AYG-55					
3/64	1.2	0.60	0.33	150	
1/16	1.6	0.80	0.36	150	
3/32	2.4	1.20	0.44	150	
1/8	3.2	1.60	0.44	150	
3/16	4.8	2.40	0.56	75	
1/4	6.4	3.20	0.56	75	
3/8	9.5	4.80	0.56	75	
1/2	12.7	6.40	0.65	50	
5/8	16.00	8.00	0.69	50	
3/4	19.1	9.50	0.80	30	
1	25.4	12.70	0.90	30	
1 1/4	31.8	15.90	0.90	30	
1 1/2	38.1	19.10	1.02	30	
2	50.8	25.40	1.02	30	
3	76.2	38.10	1.20	15	
4	101.6	50.80	1.30	15	

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Inside Diameter (max)	Inside Diameter (min)	Wall Thickness (min)	
AYG-300					
1/16	1.6	0.50	0.51	150	
3/32	2.4	0.80	0.51	150	
1/8	3.2	1.00	0.55	150	
3/16	4.8	1.50	0.60	75	
1/4	6.4	2.00	0.65	75	
3/8	9.5	3.00	0.75	75	
1/2	12.7	4.00	0.75	50	
3/4	19.1	6.00	0.85	30	
1	25.4	8.00	1.00	30	
1 1/2	39	13	1.15	30	

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
 Special features available on request.

THIN WALL TUBING

ACS-100

Very flexible, highly flame retardant



Applications

Provides excellent insulation and good mechanical strength to wire terminations and connectors. Superior flame retardancy & abrasion resistance make this tube ideal for military applications as well as for automotive cable bundling. The different colors are perfect for color code and identification.

Features

Very flexible, highly flame retardant (except clear). Resistant to common fluids and solvents. No PBB's, PBBO's and PBBE's, free of cadmium, lead. RoHS compliant.

Various

Operating temperature: -55°C to +135°C
Minimum shrink temperature: 70°C
Minimum fully recovery temperature: 100°C

Approval:
UL 224 125°C VW-1 600V (E204071)
Meet SAE-AMS-DTL-23053/5 Class 1&3.

Standard color:
Black, red, blue, yellow, green, white, clear (Class 2).



Technical data

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	14Mpa
Elongation at break	ASTM D 2671	600%
Elongation after aging (175°C, 168 hrs.)	ASTM D 2671	350%
Flammability	UL 224 VW-1 SAE-AMS-DTL-23053/5	Pass
Heat shock (250°C/4 hrs.)	ASTM D 2671	No cracking
Cold bend (-55°C/4 hrs.)	ASTM D 2671	No cracking
Dielectric strength	ASTM D 150	20 kV/mm
Volume resistance	ASTM D 876	10 ¹⁴ Ω.cm
Copper corrosion	UL 224	Pass
Water absorption	ASTM D 570	0,15%
Chemical resistance	SAE-AMS-DTL-23053/5	Pass
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	UL 224	<30%

Dimensions

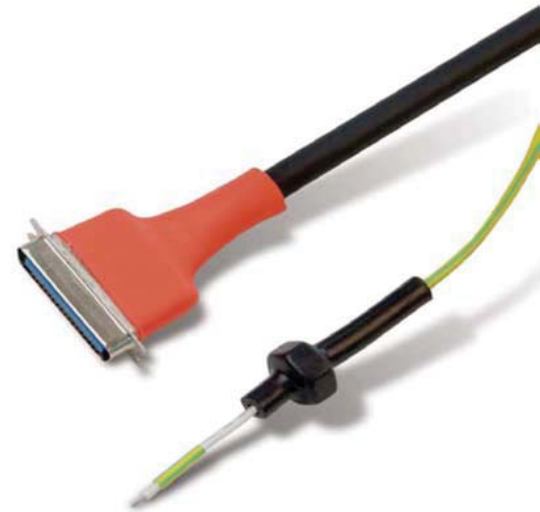
Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
ACS-100					
3/64	1.2	0.18	0.60	0.40	150
1/16	1.6	0.18	0.80	0.40	150
3/32	2.4	0.25	1.20	0.48	150
1/8	3.2	0.25	1.60	0.48	150
3/16	4.8	0.25	2.40	0.48	75
1/4	6.4	0.25	3.20	0.56	75
3/8	9.5	0.30	4.80	0.62	75
1/2	12.7	0.30	6.40	0.62	50
5/8	15.9	0.35	8.00	0.68	50
3/4	19.1	0.40	9.50	0.68	30
1	25.4	0.45	12.70	0.87	30
1 1/4	31.8	0.45	16.00	1.00	30
1 1/2	38.1	0.50	19.10	1.00	30
2	50.8	0.50	25.40	1.10	30
3	76.2	0.55	38.10	1.20	15
4	102.0	0.55	50.80	1.35	15
5	125.0	0.55	62.50	1.40	15
6	151.0	0.55	75.00	1.40	15

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
Special sizes (up to 6 inches) and other special features available on request.

THIN WALL TUBING

ACS-300

Flexible, flame retardant, high shrink ratio



Applications

Perfect for electrical insulation in light duty wire harnesses which are highly flexible. Ideal for wiring protections and identification of wires, cables and electronic / electrical components, and covering irregular shapes.

Features

Specially designed formulation to meet the standards of UL224. Free from harmful substances as PBB's, PBBO's, PBBE's and toxic heavy metals. Low shrinking temperature. Very flexible, and RoHS compliant. Shrink ratio 3:1.

Various

Operating temperature: -55°C to +125°C
Minimum shrink temperature: 70°C
Minimum fully recovery temperature: 100°C

Approvals:
Meet UL 224, 125 °C VW-1 600V.

Standard color:
Black, red, blue, yellow, green, white. Others available on request.

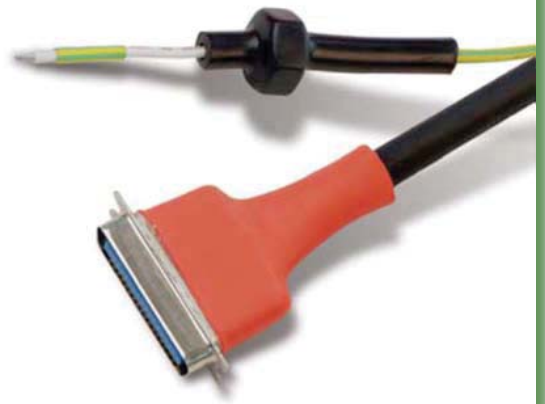
Technical data

Property	Test Method	Typical Data
Operating temperature	UL 224	-55°C to + 125°C
Tensile strength	ASTM D 2671	>14 Mpa
Elongation at break	ASTM D 2671	>400%
Elongation at break after aging	158°C/168 hrs.	>300%
Longitudinal shrinkage	UL 224	0 to -10%
Dielectric strength	IEC 243	>20 kV/mm
Volume resistance	IEC 93	>10 ¹⁴ Ω.cm
Flammability	VW-1	Pass
Copper stability	ASTM D 2671	Pass
Eccentricity	ASTM D 2671	<30%

Dimensions

Normal Size		As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
ACS-300		Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
1/16	1.5/0.5	1.6	0.15	0.5	0.45	150
1/8	3/1	3.2	0.18	1.0	0.55	150
3/16	4.5/1.5	4.8	0.20	1.5	0.60	75
1/4	6/2	6.4	0.22	2.0	0.65	75
3/8	9/3	9.5	0.25	3.0	0.75	75
1/2	12/4	12.7	0.25	4.0	0.80	50
3/4	18/6	19.1	0.35	6.0	0.90	30
1	24/8	25.4	0.45	8.0	1.00	30
1 1/2	39/13	39.0	0.50	13.0	1.25	30

* Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
Special sizes (up to 6 inches) and other special features available on request.



Applications

This tubing is manufactured with specially developed formula and technology. It can easily fit a large diameter connector or transition, and then shrink down onto a smaller diameter jacket. The outstanding physical, chemical and electrical properties make it widely used in some important fields such as military, aerospace and telecom for insulating or repairing harness, cables and connectors.

Features

Resistant to common fluids and solvents, including hydraulic fluid, aviation gasoline, water, transform oil and diesel. RoHS compliant. Very flexible. 4:1 shrink ratio.

Various

Operating temperature: -55°C to +135°C
Minimum shrink temperature: 70°C
Minimum fully recovery temperature: 100°C

Approval:
UL 224 125 °C VW-1 600V (E204071).
Meet SAE-AMS-DTL-23053/5 Class 1&3.

Standard color:
Black. Other colors available on request.

Technical data

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	14 Mpa
Elongation at break	ASTM D 2671	800%
Tensile strength after aging	ASTM D 2671 (175°C/168 hrs.)	14 Mpa
Elongation at break after aging	ASTM D 2671 (175°C/168 hrs.)	350%
Flammability	UL 224 VW-1 SAE-AMS-DTL-23053/5	Pass
Heat shock (250°C, 4 hrs.)	ASTM D 2671	No cracking
Cold bend (-55°C, 4 hrs.)	ASTM D 2671	No cracking
Dielectric strength	ASTM D 150	20 kV/mm
Volume resistance	ASTM D 876	10 ¹⁴ Ω.cm
Copper corrosion	UL 224	Pass
Water absorption	ASTM D 570	0.15%
Chemical resistance	SAE-AMS-DTL-23053/5	Pass
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	UL 224	<30%

Dimensions

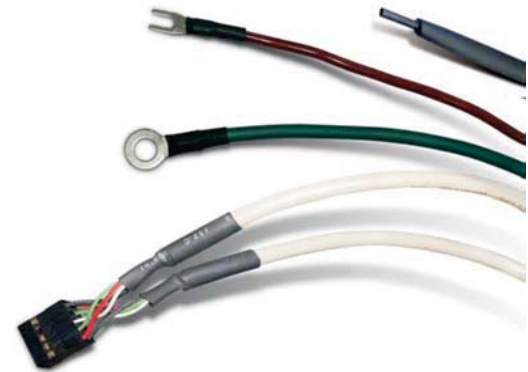
Size	As Supplied (mm)	After Recovery (mm)			Standard Length (m)
		Min. Inside Diameter (min)	Max. Inside Diameter (max)	Nom. Wall Thickness (min)	
ACS-4000					
3/4	19.1	4.6	1.7	1.22	
1	25.4	7.0	1.7	1.22	
1 1/2	38.1	9.5	1.7	1.22	
2	50.8	14.0	1.7	1.22	
3	76.2	20.6	1.7	1.22	
4	102	26.7	1.7	1.22	
4 1/2	115	36.8	1.7	1.22	

- Sticks as standards. Special cutted pieces available on request.
- Special sizes and other special features available on request.

THIN WALL TUBING

AZH-100

Halogen free tubing, flame retardant



Applications

This totally environmental friendly heat-shrinkable tube, made with specially designed halogen free polyolefin.

It produces neither toxic smoke nor harmful substances, ideal for underground applications where zero halogen cables & accessories are in demand.

Features:

The tube also shows excellent flame-retardant, insulation, low temperature shrinking and flexible properties. RoHS compliant.

Various

Operating temperature: -55°C to +105°C

Minimum shrink temperature: 70°C

Minimum fully recovery temperature: 100°C

Standard color:

Black, white. Other colors on request.

Technical data

Property	Test Method	Typical Data
Operating temperature	IEC 216	-55°C to +105°C
Tensile strength	ASTM D 2671	>10.4 MPa
Elongation at break	ASTM D 2671	>200%
Longitudinal shrinkage	UL 224	±5%
Eccentricity	ADTM D 2761	<30%
Heat shock	250°C/4 hrs.	No cracking
Heat aging Tensile strength Ultimate elongation	136°C, 168 hrs.	9.0MPa >150%
Flammability	SAE-AMS-DTL-23053/5	Pass

Dimensions

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
AZH-100					
1/8	3.2	0.25	1.60	0.44	150
3/16	4.8	0.25	2.40	0.56	75
1/4	6.4	0.25	3.20	0.56	75
3/8	9.5	0.30	4.80	0.56	75
1/2	12.7	0.35	6.40	0.65	50
3/4	19.1	0.40	9.50	0.80	30
1	25.4	0.45	12.70	0.90	30
1 1/2	38.1	0.50	19.10	1.02	30
2	50.8	0.50	25.40	1.02	30

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
Special sizes and other special features available on request.



Applications

This low shrink temperature tubing is ideal for applications where heat sensitive components such as PVC jacketed wire and cable are used. Electrical termination insulation covering of heat-sensitive devices, cosmetic covering, and mechanical protection.

Features

Its halogen free formula makes it very flexible and quick to shrink. Maximum efficiency in high-volume commercial applications. Although non-flame retardant, **meets the automotive flame propagation standard MVSS 302.**

Various:

Operating temperature: -45°C to +125°C
Minimum shrink temperature: 65°C
Minimum fully recovery temperature: 95°C
RoHS compliant.

Standard color:
Black, others colors on request.

Technical data

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	13 MPa
Elongation at break	ASTM D 2671	450%
Tensile strength after aging	ASTM D 2671 (158°C, 168 hrs.)	11 MPa
Elongation after aging	ASTM D 2671 (158°C, 168 hrs.)	300%
Heat shock (250°C, 4 hrs.)	ASTM D 2671	No cracking
Cold bend (-55°C, 4 hrs.)	ASTM D 2671	No cracking
Copper corrosion	UL 224	Pass
Flammability	MVSS 302	Pass
Fluid resistance	23°C for 24hrs. ISO 37 Tensile strength Elongation	11MPa 200%
Longitudinal shrinkage	UL 224	0±5%

• To ensure dimensional stability, ALST should be stored at temperature below 40°C.

Dimensions:

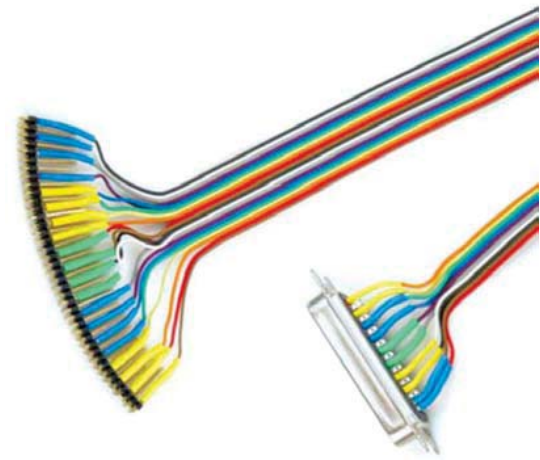
ALST	As Supplied (mm) Inside Diameter (min)	After Recovery (mm)		Standard Spool Length (m/spool)
		Inside Diameter Max. (max)	Nom. Wall Thickness (min)	
1/16	1.6	0.80	0.50	150
3/32	2.4	1.20	0.50	150
1/8	3.2	1.60	0.50	150
3/16	4.8	2.40	0.50	75
1/4	6.4	3.20	0.60	75
3/8	9.5	4.80	0.60	75
1/2	12.7	6.40	0.60	50
3/4	19.1	9.50	0.80	30
1	25.4	12.70	0.90	30
1 1/4	31.8	15.9	0.90	30
1 1/2	38.1	19.10	1.00	30
2	50.8	25.40	1.10	30

• Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
Special sizes and other special features available on request.

THIN WALL TUBING

AUTW

Ultra thin wall tubing



Applications

This ultra thin wall tubing has exceptional quick shrink capability making it ideal to use on sensitive applications. The low shrink temperature recovery reduces installation time and eliminates heat damage on the application.

Features

RoHS compliant.

Various

Operating temperature: -55°C to +125°C
Minimum shrink temperature: 70°C
Minimum fully recovery temperature: 100°C

Approval: Meet UL 224 125°C VW-1 300V

Standard color:
Black, others colors on request.

Technical data

Property	Test Method	Typical Data
Operating temperature	IEC 216	-55°C to +125°C
Tensile strength	ASTM D 2671	>14 MPa
Elongation at break	ASTM D 2671	>400%
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	ASTM D 2671	<30%
Elongation at break after aging	158°C/168 hrs.	>300%
Flammability	VW-1	Pass
Dielectric strength	IEC 243	>20 kV/mm
Volume resistance	IEC 93	>10 ¹⁴ Ω.cm
Copper stability	UL 224	Pass

Dimensions

Size	As Supplied (mm)		After Recovery (mm)		Standard Length (m/spool)
	Inside Diameter (min)	Wall Thickness (nominal)	Inside Diameter (max)	Wall Thickness (min)	
AUTW					
3/64	1.2	0.10	0.60	0.20	150
1/16	1.6	0.10	0.80	0.20	150
3/32	2.4	0.15	1.20	0.25	150
1/8	3.2	0.15	1.60	0.25	150
3/16	4.8	0.15	2.40	0.25	75
1/4	6.4	0.15	3.20	0.28	75
3/8	9.5	0.15	4.80	0.28	75
1/2	12.7	0.15	6.40	0.28	50

- Spools as standards. 1 m. or 1,20 m. sticks, special spool lengths or cutted pieces available on request.
Special sizes and other special features available on request.

MINI-BOXES

AMB-55 / AMB-YG / AMB-CAT

Mini-box tubing dispensers



Applications:

AMB Series are Mini-Boxes tubing dispensers ideal for wholesalers, small shops, automotive repair shops or any electrical work shops.

AMB-55:

2:1 ratio, 125°C, UL VW-1, high quality, environment friendly tubing (refer to ACS-55 data sheet for details).

AMB-YG:

2:1 ratio, 125°C, Yellow/Green tubing ideal for grounding (refer to AYG-55 data sheet for details).

AMB-CAT:

3:1 ratio, adhesive lined tubing (refer to ACAT data sheet for details).

Mini-box metallic holder available on request.

Various:

Sizes available:
From 1,6mm up to 25,4mm

Standard color :

AMB-55: Black, Clear, Red, Blue, Yellow, Green, White, (others on request)

AMB-YG: Yellow/Green

AMB-CAT: Black

AMB-55

P/N for Mini-boxes	Size	Expanded Diameter (mm)	Recovered Diameter (mm)	Length per Mini-box	Tubing
AMB-55	1/16"	1.6	0.8	15 mtrs	ACS-55
AMB-55	3/32"	2.4	1.2	15 mtrs	ACS-55
AMB-55	1/8"	3.2	1.6	15 mtrs	ACS-55
AMB-55	3/16"	4.8	2.4	10 mtrs	ACS-55
AMB-55	1/4"	6.4	3.2	10 mtrs	ACS-55
AMB-55	3/8"	9.5	4.75	10 mtrs	ACS-55
AMB-55	1/2"	12.7	6.35	5 mtrs	ACS-55
AMB-55	3/4"	19.1	9.5	5 mtrs	ACS-55
AMB-55	1	25.4	12.7	5 mtrs	ACS-55

AMB-YG

P/N for Mini-boxes	Size	Expanded Diameter (mm)	Recovered Diameter (mm)	Length per Mini-box	Tubing
AMB-YG	1/16"	1.6	0.8	15 mtrs	AYG-55
AMB-YG	3/32"	2.4	1.2	15 mtrs	AYG-55
AMB-YG	1/8"	3.2	1.6	15 mtrs	AYG-55
AMB-YG	3/16"	4.8	2.4	10 mtrs	AYG-55
AMB-YG	1/4"	6.4	3.2	10 mtrs	AYG-55
AMB-YG	3/8"	9.5	4.75	10 mtrs	AYG-55
AMB-YG	1/2"	12.7	6.35	5 mtrs	AYG-55
AMB-YG	3/4"	19.1	9.5	5 mtrs	AYG-55
AMB-YG	1	25.4	12.7	5 mtrs	AYG-55

AMB-CAT

P/N for Mini-boxes	Size	Expanded Diameter (mm)	Recovered Diameter (mm)	Length per Mini-box	Tubing
AMB-CAT	6/2	6	2	4 mtrs	ACAT-300
AMB-CAT	9/3	9	3	3 mtrs	ACAT-300
AMB-CAT	12/4	12	4	3 mtrs	ACAT-300
AMB-CAT	18/6	18	6	2 mtrs	ACAT-300
AMB-CAT	24/8	24	8	2 mtrs	ACAT-300

● Special printing on box and special tubing are available on request.

THIN WALL TUBING

AGP-55

Tubing for flexible gas pipes



Applications

AGP-55 flexible heat shrinkable sleeve is made from radiation cross-linked polyolefin. Specially designed formulations make the tubing to have outstanding physical, chemical and electrical properties. Very suitable for application of protecting flexible gas pipes.

Features

Base materials: Modified cadmium and lead free polyolefin.
Shrink ratio 2:1

Various

Minimum shrink temperature: 90°C
Minimum fully recovery temperature: 110°C

Standard colors:
Lemon yellow



Technical data

Electrical Properties	Test Method	Test Value
Specific gravity	ASTM D 729	1.25/cm ³
Longitudinal changes	ASTM 2671	0±5%
Eccentricity	ASTM 2671	<30%
Tensile strength	ASTM 2671	14MPa
Elongation	ASTM 2671	>650%
After aging		
Ultimate elongation	158°C/168hrs.	>490%
Tensile strength		>12MPa
Heat SHock	250°C/4hrs.	No flowing or dropping
Cold bend test	ASTM 2671	No cracking
Dielectric strength	IEC 93	> 25kV/mm
Volume resistance	ASTM 2671	>10 ¹⁴ Ω.cm
Copper corrosion	UL 224	No corrosion
Copper Stability (158°C/168 hrs.)	UL 224	Pass
Printability	Hot stamp/ink jet/offset printing	Very good

Dimensions

Size	As Supplied (mm)	After Recovered (mm)		Standard Length Diameter
		Supplied I.D.		
AGP-55	Inside Diameter	Inside Diameter	Wall Thickness	m/spool
AGP-55	23.0	9.5	0.65	100
AGP-55	27.5	12.7	0.70	50
AGP-55	29.0	12.7	0.70	50
AGP-55	33.5	16.0	0.80	50
AGP-55	40.5	19.0	0.80	50
AGP-55	51.0	25.4	0.80	50
AGP-55	65.0	32.5	1.27	50
AGP-55	77.0	38.1	1.27	50

THIN WALL TUBING

ACS-55NS / AZH-NS Non-shrinkable tubes



Applications

ACS-55NS and AZH-NS tubing is made from radiation crosslinked flame retardant polyolefin. Designed to provide mechanical protection and insulation for harness used in automobile and electronic facilities.

The environment friendly formulation makes the tubing free from harmful heavy metal and PBB's, PBBO's, PBBE's that were suspect to be harmful to the human beings and environment.

Features

Meet UL 224, VW-1 600V

ACS-55NS: flame retardant

AZH-NS: halogen free flame retardant

Various

Operating temperature: -55°C to +125°C

Standard Color:

Black. Other colors are available on request.

Technical data

Property	Test Method	Typical Data
Tensile strength	ASTM D 2671	>10.4 Mpa
Tensile strength after aging	ASTM D 2671	Remains 70%
Elongation at break	ASTM D 2671	200%
Elongation at break after aging	ASTM D 2671	100%
Heat shock (250°C/4hrs.)	ASTM D 2671	No cracking or dropping
Cold bend (-30°C/1 hr.)	ASTM D 2671	No cracking
Voltage withstand (AC 2500V/60s)	ASTM D 876	>34kV/mm
Volume resistance	ASTM D 876	>10 ¹⁴ Ω.cm
Flammability	UL 224 VW-1	Pass
Copper stability (158°C/168 hrs.)	UL 224	No corrosion
Water absorption	ASTM D 570	0,5%

Dimensions

Inside Diameter (mm)	Wall Thickness (min)	Standard Length (m/spool)
1.00±0.10	0.40±0.06	400
1.30±0.10	0.40±0.06	400
1.65±0.10	0.40±0.06	400
2.10±0.15	0.40±0.06	400
2.60±0.15	0.50±0.06	400
3.30±0.15	0.50±0.06	400
4.10±0.20	0.50±0.06	200
5.20±0.20	0.50±0.06	200
6.50±0.20	0.50±0.06	100
8.30±0.30	0.50±0.06	100
9.50±0.40	0.50±0.06	100
11.10±0.40	0.50±0.06	100
12.70±0.40	0.50±0.06	100

THIN WALL TUBING

AHPVC

Flat PVC thin wall tubing



Applications

This rigid PVC shrink tubing is an ideal low cost solution to replace paint coating on LV bus bars, diodes and battery cells. The bright colors make identification simple.

Features

Shrink ratio: 2:1
Delivered on flat shape
Very thin and rigid wall

Standard colors: black, red, yellow, blue
Other colors on request



Technical data

Property	Test Method	Typical Data
Tensile strength	IEC 60684-2	21 MPa
Elongation at break	IEC 60684-2	70-120%
Longitudinal shrinkage	ASTM D 2671	- 20% max.
Specific Gravity	ASTM D 792 A-I	1.45g/cm ³ max.
Dielectric strength	VDE 0303 Part 2	20 kV/mm
Volume resistance	VDE 0303 Part 3	>10 ¹⁴ Ω.cm
Water absorption	VDE 0472	0.70%
Dielectric constant		3.35

Dimensions

Sizes mm		Wall Thickness						
LAY FLAT WIDTH		SIZE in mm						
From	To	0.07	0.10	0.13	0.15	0.18	0.20	0.30
8.5	10.0	x	x					
10.5	13.5	x	x					
14.0	16.5	x	x	x	x			
17.0	19.5	x	x	x	x			
20.0	24.5	x	x	x	x	x		
25.0	29.5	x	x	x	x	x	x	
30.0	34.5	x	x	x	x	x	x	
35.0	39.5	x	x	x	x	x	x	
40.0	99.5	x	x	x	x	x	x	x
100.0	109.5	x	x	x	x	x	x	x
110.0	250.0	x	x	x	x	x	x	x