

JDD TECH[®]

交织智慧 创造价值

Braiding wisdom, creating value



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**Catalogue /// 2016
Automotive products**



Perfect automotive cable & hose protective solution

BRIEF INTRODUCTION

Shenzhen Jdd Tech Co., Ltd. was established in 2004. We are one of the leading manufacturers for protective sleeves in China. The three factories cover about 20,000 square meter, two are located in Guangdong, one is in Jiangsu. There are more than 300 employees including 10 R&D engineers, 12 product engineers and 15 QC. Our main equipments including 400 high speed braiding machines, 4 high precision monofilament extruding machines, 153 sets heat shrinkable tube extruding machines, 5 corrugated conduit production lines and etc.

The company is certificated with ISO9001:2008 quality management system, ISO/TS16949:2009 for automotive industry and ISO 14001:2004 environmental management system. Most of our products meet ROHS, REACH, Halogen free, UL, CSA, some products meets MSHA, ISO6945, FMWSS-302, GMW14327, D47 1924, ISO 6722, S21 5101 standard, few products have passed railway flame retardant standard such as UK BS6853, German DIN 5510 and French NF F 16-101.

Our turnover have maintained 30% growth every year, about 50% export to the overseas market, mainly in Europe (Germany, Italy, UK, France...), America (USA, Canada, Mexico, Brazil...), South Africa and Japan. Our main customers including GM, VW, Toyota, BYD and Great Wall Motor.

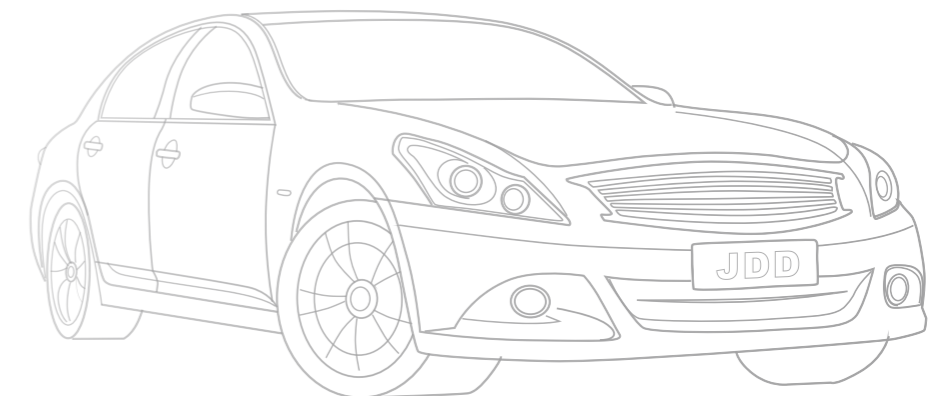
We have more than 50 types of different protective sleeveings. The wide product range offers a comprehensive solution for all types of cable, hose and pipe the mechanical & abrasion protection, noise reduction, electrical insulation, thermal protection, radiant heat protection and electromagnetic shielding. JDD products are widely used in automobile, railway, telecom, hydraulic heavy machinery, electronic, military and aerospace field.

The customers could collect all the materials one-stop purchase, OEM&ODM orders are welcome ! If you are looking for long term strategic partners, JDD is the best choice.



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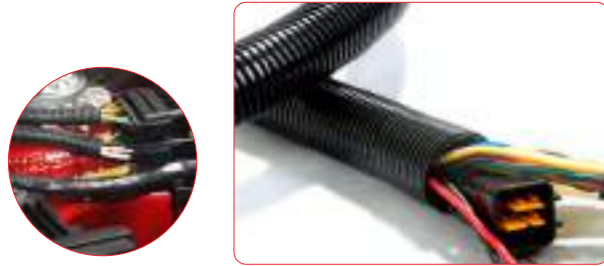
* Aluminum heat reflect fiberglass sleeving



* Dual wall heat shrinkable tube



* Corrugated flexible conduit



* Normal wall heat shrinkable tube



* Heat shrinkable braided sleeve



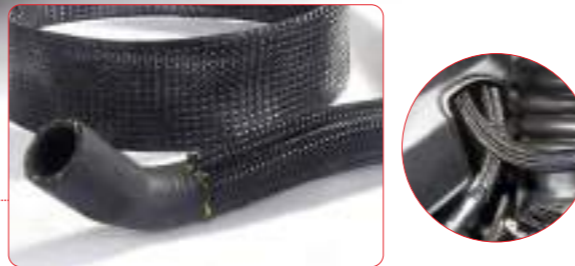
* Fiberglass sleeving



* Waved self-closing wrap



* Auto FR1130 expandable sleeving



PRODUCTS



Polyester expandable sleeving

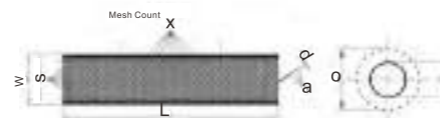


FR1100 Polyester expandable sleeving is consists of modified polyester monofilament. It offers lightweight, flame retardant and excellent abrasion resistance. The high expansion ratio allows it could be easily cover through the large cable connectors.

Application



Drawing



It's used to protect the automotive rubber hose, wire harnesses against mechanical abrasion, fire resistance and fluid resistance.

Technical data	
Material	Polyester
Working temperature	- 50°C - +150°C
Melting point	240°C ±10°C
Flammability	UL VW-1 FMVSS302
Color	Black and grey
Approval	UL, ROHS, REACH, Halogen Free
Cutting tool	Hot Knife

Unit: mm

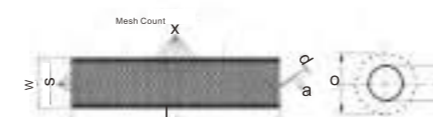
- Notes:
- 1.Nominal size indicates the flat width.
 - 2.This sleeving has expandable character, the following sizes are covered by the nearest:
16mm=15mm, 19mm =20mm , 32mm =30mm , 38mm=40mm, 51mm=50mm.
 - 3.Special colors, customized size, special package, cut into different length can be supplied upon request.
 - 4.All the numerical data are the average or typical values, not including the customized sizes.

Auto FR1130 expandable sleeving



Auto FR1130 expandable sleeving is made of larger Nylon 6.6 and smaller polyester monofilament mixed braiding, the dual monofilament construction offers durable abrasion resistance and oil resistance in a wide range of industrial applications. It is lightweight and the expandable structure allows for easy to install over long lengths.

Drawing



It's used to cover cables, wire harnesses, tubes, industrial hoses where need extremely anti-abrasion in automotive, railway and panel board field.

Technical data	
Material	Polyester, Nylon
Working temperature	- 50°C - +150°C
Flammability	FMVSS302
Color	Black
Approval	RoHS
Cutting tool	Hot Knife

Application



Dimensions					
Part No.	Nominal Size (W)		Expandable Range		Packing (m/spool)
	Inch	mm	Min. (I)	Max. (O)	
FR1130-010	3/8"	10	7	15	350
FR1130-012	1/2"	12	8	17	300
FR1130-014	5/9"	14	9	20	250
FR1130-016	5/8"	16	10	23	250
FR1130-019	3/4"	19	13	28	200
FR1130-025	1"	25	16	35	200
FR1130-032	1-1/4"	32	20	45	100

Unit: mm

- Notes:
1. Nominal size indicates the flat width.
 - 2.This sleeving has expandable character, the following sizes are covered by the nearest:
16mm=15mm, 19mm =20mm , 32mm =30mm , 38mm=40mm, 51mm=50mm.
 - 3.Special colors, customized size, special package, cut into different length can be supplied upon request.
 - 4.All the numerical data are the average or typical values, not including the customized sizes.

PPS braided expandable sleeving

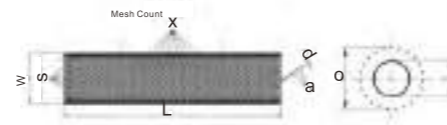


FR1080 V0 PPS braided expandable sleeving is made of PolyPhenylene Sulfide (PPS) monofilament which meet UL94 V-0 standard raw material. It offers high abrasion resistance, chemical resistance, high temperature stability, with low moisture absorption and excellent dimensional stability function.

Application



Drawing



It is widely used in the following fields: automotive, railways, aerospace, telecom and military where needs high flame-retardant and high temperature resistance.

Technical data	
Material	PPS
Working temperature	- 70°C - + 200°C
Melting point	285°C ±10°C
Flammability	UL 94V-0
Color	Black
Other feature	acid, solvents and fluid resistant
Approval	RoHS
Cutting tool	Hot knife

Unit: mm

Notes:

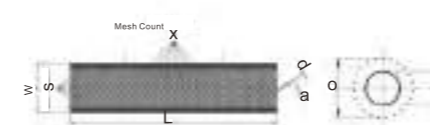
- Nominal size indicates the flat width.
- This sleeving has expandable character, the following sizes are covered by the nearest:
16mm=15mm, 19mm =20mm , 32mm =30mm , 38mm=40mm, 51mm=50mm.
- Customized size, special package, cut into different length can be supplied upon request.
- All the numerical data are the average or typical values, not including the customized sizes.

Nylon 66 braided expandable sleeving



FR1200 nylon expandable sleeving is made of nylon 6.6 monofilament which offers excellent performance of abrasion resistance, it is tough, flexible, light weight and resistant to trapping water, heat and humidity, the open-weave construction enables each size to expand to fit several sizes and shapes.

Drawing



It is most commonly used to protect wire harnesses, cable assemblies, water hose, aircondition pipes, fluid pipes in automotive, railway, electronic, and telecom industry.

Technical data	
Material	Polyamide 66
Working temperature	- 60°C - +160°C
Flammability	FMVSS302
Melting point	256°C ±5°C
Color	Black and grey
Approval	RoHS
Cutting tool	Hot Knife

Unit: mm

Notes:

- Nominal size indicates the flat width.
- This sleeving has expandable character, the following sizes are covered by the nearest:
16mm=15mm, 19mm =20mm , 32mm =30mm , 38mm=40mm, 51mm=50mm.
- Special colors, customized size, special package, cut into different length can be supplied upon request.
- All the numerical data are the average or typical values, not including the customized sizes.

Application



Dimensions					
Part No.	Nominal size (W)		Expandable Range		Packing (m/spool)
	Inch	mm	Min.(I)	Max.(O)	
FR1200-003	1/8"	3	1	6	1000
FR1200-006	1/4"	6	3	9	500
FR1200-008	5/16"	8	5	12	350
FR1200-010	3/8"	10	7	17	350
FR1200-012	1/2"	12	8	20	300
FR1200-016	5/8"	16	10	27	250
FR1200-019	3/4"	19	14	30	200
FR1200-025	1"	25	18	33	200
FR1200-032	1-1/4"	32	20	50	150
FR1200-038	1-1/2"	38	30	60	100
FR1200-045	1-3/4"	45	35	75	100
FR1200-050	2"	50	40	80	100
FR1200-064	2-1/2"	64	45	105	100
FR1200-076	3"	76	64	120	100

EMI Shielding expandable sleeving

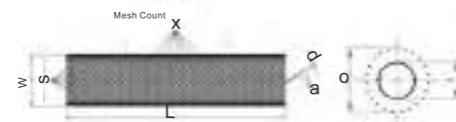


FR1140 EMI Shielding expandable sleeving is made of tinned copper wire and polyester monofilament mix braiding, It's specially designed for mechanical wear resistance and anti-electromagnetic for the automotive wire harness. The important feature is that it's more suitable for operating in the narrow space because of the material's high flexibility, meanwhile it is much lighter, softer and cost effective than the normal tinned copper sleeving.

Application



Drawing



It is widely used in automotive wire harness field, it can provide wear resistance, EMI shielding and anti signal interference for the harnesses.

Part No.	Dimensions				Packing (m/spool)
	Nominal size(W)		Expandable Range		
	Inch	mm	Min.(l)	Max.(o)	
FR1140-006	1/4"	6	3	8	200
FR1140-008	5/16"	8	5	13	200
FR1140-010	3/8"	10	7	16	150
FR1140-012	1/2"	12	8	20	150
FR1140-016	5/8"	16	10	24	100
FR1140-019	3/4"	19	14	30	100

Unit: mm

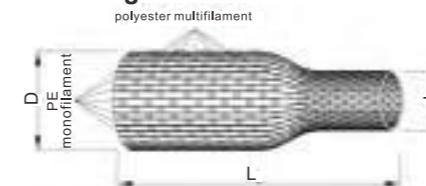
Technical data	
Material	Polyester, tinned copper
Working temperature	-50°C- +150°C
Melting point	240°C ±10°C
Flammability	FMVSS302
Color	Black mix silver
Approval	RoHS
Cutting tool	Scissors

Heat shrinkable textile sleeve



HSS6400 heat shrinkable textile sleeve consists of polyester multifilament and special modified polyolefin monofilament, the shrink ratio is 2:1, the special woven construction makes it very flexible, it can be easily cover on the hoses with irregular shapes. It is suitable for used in rough environments, providing excellent abrasion resistance and noise reduction.

Drawing



It is widely used to protect the automotive rubber hoses, aircondition pipes, wire harnesses for anti abrasion, noisy reduction and fuel resistance.

Application



Technical data	
Material	Polyolefin and polyester
Working temperature	-40°C- +125°C
Shrink temperature	110°C~185°C
Flammability	FMVSS302
Color	black
Shrink ratio	2:1
Approval	RoHS, Halogen Free
Tool	Heat gun, oven

Part No.	Dimensions		
	As supplied (D)	After recovery (d)	Packing (m/spool)
HSS6400-010	10	5.0	100
HSS6400-020	20	10.0	100
HSS6400-025	25	12.5	100
HSS6400-030	30	15.0	100
HSS6400-034	34	17.0	100
HSS6400-040	40	20.0	50
HSS6400-050	50	25.0	50
HSS6400-060	60	30.0	50
HSS6400-070	70	35.0	50
HSS6400-080	80	40.0	50

Unit: mm

Notes:

- Nominal size indicates the flat width.
- This sleeving has expandable character, the following sizes are covered by the nearest:
16mm=15mm, 19mm =20mm, 32mm =30mm, 38mm=40mm, 51mm=50mm.
- Special colors, customized size, special package, cut into different length can be supplied upon request.
- All the numerical data are the average or typical values, not including the customized sizes.

Notes:

- Nominal size indicates the inner diameter.
- Special colors, customized size, special package, cut into different length can be supplied upon request.
- All the numerical data are average or typical values, not including customized sizes.
- The maximum storage temperature: 60°C

Self-closing wrap



SCS2160 self-closing wrap is a non-expandable sleeving woven from monofilament (weft) and multifilament (warp) polyester yarns. It is lightweight, dustproof, flame retardant, cost-effective and highly abrasion resistance, the split open design allows easy install on the cable harness which has been assembled.

Application



Drawing



It most commonly be used on wire harnesses, cable assemblies, tubes and cables to provide a tough, durable protection in automotive, telecom, automatic equipment, railways and panel boards.

Technical data	
Material	Polyester monofilament and multifilament
Working temperature	- 50°C- +150°C
Melting point	240°C ±10°C
Flammability	FMVSS302
Color	Black
Approval	RoHS, Halogen free, DIN5510, EN45545
Cutting tool	Hot knife

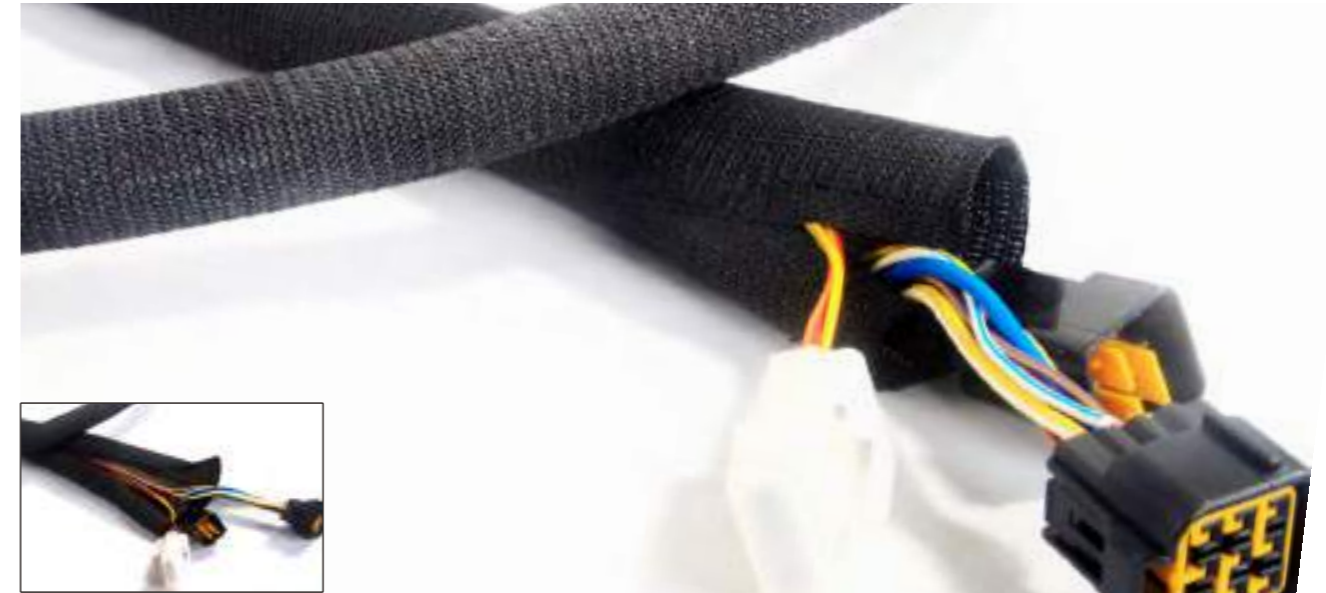
Dimensions			
Part No.	I.D.(d)	Max. bundle Dia.	Packing (m/spool)
SCS2160-005	5.0	6.0	100
SCS2160-008	8.0	9.0	100
SCS2160-010	10.0	11.0	100
SCS2160-013	13.0	14.0	50
SCS2160-016	16.0	17.0	25
SCS2160-019	19.0	20.0	25
SCS2160-025	25.0	27.0	25
SCS2160-029	29.0	31.0	25
SCS2160-032	32.0	34.0	25
SCS2160-038	38.0	40.0	25
SCS2160-050	50.0	52.0	25

Unit: mm

Note:

- 1.The part No. will be followed by BK, GR and so on to indicate the color of the wrap.
- 2.Special colors, customized size, special package, cut into different length can be supplied upon request.
- 3.All the numerical data are the average or typical values, not including the customized sizes.
- 4.The installing tool are available for sale.

Waved self closing wrap



SCK2160 waved self closing wrap is a new type of self-closing wrap, it consists of special modified monofilament and multifilament yarns. It has excellent abrasion resistance, noise reduction, meanwhile it is very easy for installation and removal.

Drawing



It is widely used on wire harnesses, tubes and hoses providing a tough and durable protection in telecom, railway, automotive, equipments and machines.

Technical data	
Material	Polyester
Working temperature	- 50°C- +150°C
Melt point	240°C ±10°C
Flammability	FMVSS302
Standard colors	Black
Approved	RoHS, Halogen free
Cutting tool	Hot knife, Scissors

Dimensions			
Part No.	I.D.(d)	Max. bundle Dia.	Packing(m/spool)
SCK2160-006	6	7	100
SCK2160-008	8	9	100
SCK2160-010	10	11	100
SCK2160-013	13	14	50
SCK2160-016	16	17	25
SCK2160-019	19	20	25
SCK2160-025	25	27	25
SCK2160-029	29	31	25
SCK2160-032	32	34	25
SCK2160-038	38	40	25
SCK2160-050	50	55	25

Unit: mm

Note:

- 1.The part No. will be followed by BK, GR and so on to indicate the color of the wrap.
- 2.Special colors, customized size, special package, cut into different length can be supplied upon request.
- 3.All the numerical data are the average or typical values, not including the customized sizes.
- 4.The installing tool are available for sale.

Aluminum foil corrugated conduit



AFW3530 aluminum foil corrugated conduit is constructed of 3 layers, the middle layer is made of fiberglass yarn braiding, the inside and outside layer are both covered by aluminum foil. The special design provides excellent long-term heat protection for the rubber hose, wire harness and cables in the high temperature area, engine room.

Application



Drawing



This product provides heat reflection and heat resistance protection for a wide range of industries and applications, including automotive, railway, engines and transformers.

Technical data	
Material	Aluminum and fiberglass yarn
Working temperature	-50°C~+200°C
Standard color	Natural color
Certificate	RoHS
Cutting tool	scissor

Notes:

- 1.The two layer construction are also available. It is composed of the inner glass fiber and the outer aluminum foil.
2. All numeric data shows the average or typical values, not including the customized sizes.
3. The special size and packing length are available upon request.

Unit: mm

Aluminum heat reflect fiberglass sleeving



AFR1067 aluminum heat reflect fiberglass sleeving is special designed by laminating an aluminized metallic heat shield to a layer of strong and tight braided fiberglass yarn. A special manufacturing process permits the sleeve to boast a virtually seamless and non fraying construction. This aluminized fiberglass sleeve reflects more than 95% of the radiant energy that hits its surface, keeping the underlying cables, hoses and wires cool.

Drawing



It offers perfect heat reflect and protection for automotive rubber hose, wire harness near engine room with high temperature environment.

Technical data	
Outside	Aluminum foil
Inside	Fiberglass sleeving
Working temperature	-50°C~+200°C
Color	Sliver white
Approval	RoHS
Cutting tool	scissor

Note:

- 1.Customized size, special package, cut into different length can be supplied upon request.
- 2.All the numerical data are the average or typical value, not including the customized sizes.
- 3.Normally it will be supplied in flat shape. The round shape sleeving can be made upon requests.

Application



Dimensions					
Part No.	I.D. (d)	Flat width (W)	Wall thickness (T)	Max. bundle dia.	Packing (L)
AFR1067-010	10.0	19.0	1.0	11.0	50m/spool
AFR1067-016	16.0	29.0	1.0	17.0	
AFR1067-020	20.0	35.0	1.0	21.0	
AFR1067-025	25.0	43.0	1.0	26.0	
AFR1067-030	30.0	51.0	1.0	31.0	
AFR1067-035	35.0	59.0	1.0	36.0	

Unit: mm

Fiberglass sleeving



MBQGD fiberglass sleeving is made of E-class fiberglass braiding sleeve treated at high temperature with a special kind of silicone resin and possess outstanding a temperature classification of 200°C. Usually it is used for the insulation protection for the wire harnesses in automotive field. It also has excellent properties of self-extinguishing and flexibility.

Application



Drawing



This sleeving is widely used for supplementary insulation on transformer, motor, generator and resistor etc.

Technical data	
Material	Fiberglass
Coating	Silicone resin
Working temperature	-60°C~+200°C
Breakdown voltage	1.5kv~4kv
Flammability	UL VW-1
Color	White
Approval	RoHS, UL
Cutting tool	Cutting machine, scissor

- Note:
- The part No. will be followed by BK, RD, YL, BL and so on to indicate the color of the sleeving.
 - Special packing, sizes, colors and cutting into different length can be supplied upon requests.
 - All the numerical data are the average or typical values, not including the customized sizes.

Unit: mm

Normal wall heat shrinkable tube



MRSNG normal wall heat shrinkable tube is a newly developed environment-friendly flame retardant heat-shrinkable tube, using modified polymers and cross-linked by electronic accelerator. It offers an economic and efficient solution for the insulation and protection of cable splices and terminals.

Drawing



It widely used in automotive field for connection insulation and rust-proof, water-proof and insulation protection.

Technical data	
Material	Polyethylene
Working temperature	-55°C~+125°C
Shrink temperature	Start at 70°C, complete shrink at 110°C
Longitudinal shrinkage	≤5%
Flammability	UL VW-1
Shrink ratio	2:1
Approval	UL, CSA, RoHS, Halogen free
Tool	Heat gun, Oven

- Notes:
- Special packing, sizes, colors and cutting into different length can be supplied upon requests.
 - All the numerical data are the average or typical values, not including the customized sizes.
 - The max. dia. is 200mm, for more details pls contact our sales team.

Application



Part No.	Dimensions				Packing (m/spool)
	As supplied		After recovery		
	I.D. (D)	Wall thickness(t)	Max. I.D. (I)	Wall thickness(T)	
MRSG-1.0	1.5±0.2	0.18±0.03	≤0.65	0.36±0.10	200
MRSG-1.5	2.0±0.3	0.18±0.03	≤0.85	0.36±0.10	200
MRSG-2.0	2.5±0.3	0.20±0.05	≤1.00	0.40±0.10	200
MRSG-2.5	3.0±0.3	0.20±0.04	≤1.25	0.40±0.10	200
MRSG-3.0	3.5±0.4	0.20±0.04	≤1.50	0.40±0.10	200
MRSG-3.5	4.0±0.4	0.22±0.04	≤1.75	0.44±0.10	200
MRSG-4.0	4.5±0.4	0.25±0.04	≤2.00	0.50±0.10	200
MRSG-4.5	5.0±0.4	0.25±0.04	≤2.25	0.50±0.10	100
MRSG-5.0	5.5±0.4	0.25±0.04	≤2.50	0.50±0.10	100
MRSG-5.5	6.0±0.4	0.25±0.04	≤2.75	0.50±0.10	100
MRSG-6.0	6.5±0.4	0.28±0.04	≤3.00	0.55±0.10	100
MRSG-6.5	7.0±0.3	0.28±0.04	≤3.25	0.55±0.10	100
MRSG-7.0	7.5±0.3	0.28±0.04	≤3.50	0.55±0.10	100
MRSG-8.0	8.5±0.5	0.28±0.04	≤4.00	0.60±0.10	100
MRSG-9.0	9.5±0.5	0.30±0.05	≤4.50	0.60±0.10	100
MRSG-10	10.5±0.5	0.30±0.05	≤5.00	0.60±0.10	100
MRSG-11	11.5±0.5	0.30±0.05	≤5.50	0.60±0.10	100
MRSG-12	12.5±0.5	0.30±0.05	≤6.00	0.60±0.10	100
MRSG-13	13.5±0.5	0.35±0.06	≤6.50	0.70±0.10	100
MRSG-14	14.5±0.5	0.35±0.06	≤7.00	0.70±0.10	100
MRSG-15	15.5±0.5	0.40±0.08	≤7.50	0.75±0.10	100
MRSG-16	16.5±0.5	0.40±0.08	≤8.00	0.75±0.10	100
MRSG-17	17.5±0.5	0.40±0.08	≤8.50	0.75±0.10	100
MRSG-18	19.0±0.7	0.40±0.08	≤9.00	0.75±0.10	100
MRSG-20	21.0±0.7	0.40±0.08	≤10.0	0.75±0.10	100
MRSG-22	23.0±0.7	0.40±0.08	≤11.0	0.80±0.15	100
MRSG-25	26.0±0.7	0.50±0.10	≤12.5	0.90±0.15	50

Unit: mm

Dual wall heat shrink tube



SBG5400 dual wall adhesive heat-shrinkable tube is made of the high quality polymer (out layer) with hot melt adhesive (inner layer). When it expose to heat source, the inner layer begin to melt and flow. When it cools down, inner layer forms an adhesion layer between the tubing and the component or wire. Provides a water-tight seal and protection for the connectors or wire.

MSBG3 3:1 Dimensions					
Part No.	As supplied (D)	After Shrank			Packing (L)
		I.D.(I)	Wall thickness (T)	Adhesive thickness	
MSBG3-032	3.2	1.0	1.0	0.40	200m/spool
MSBG3-048	4.8	1.6	1.1	0.40	100m/spool
MSBG3-064	6.4	2.0	1.2	0.50	100m/spool
MSBG3-079	7.9	2.7	1.4	0.50	100m/spool
MSBG3-095	9.5	3.2	1.4	0.50	50m/spool
MSBG3-127	12.7	4.2	1.7	0.50	1.22m/pcs
MSBG3-015	15.0	5.0	1.8	0.60	
MSBG3-191	19.1	6.3	2.0	0.60	
MSBG3-254	25.4	8.5	2.1	0.60	
MSBG3-030	30.0	10.2	2.2	0.60	
MSBG3-039	39.0	13.5	2.4	0.60	
MSBG3-050	50.0	17.0	2.7	0.70	
MSBG3-064	64.0	21.0	3.0	0.70	
MSBG3-075	75.0	25.0	3.2	1.0	
MSBG3-090	90.0	30.0	3.3	1.0	
MSBG3-100	100.0	34.0	3.5	1.2	
MSBG3-125	125.0	42.0	3.5	1.2	

MSBG4 4:1 Dimensions					
Part No.	As supplied (D)	After Shrank			Packing (L)
		I.D.(I)	Wall thickness (T)	Adhesive thickness	
MSBG4-004	4.0	1.0	1.0	0.4	200m/spool
MSBG4-006	6.0	1.5	1.1	0.4	100m/spool
MSBG4-008	8.0	2.0	1.5	0.5	50m/spool
MSBG4-012	12.0	3.0	1.7	0.5	1.22m/pcs
MSBG4-016	16.0	4.0	2.0	0.5	
MSBG4-020	20.0	5.0	2.3	0.6	
MSBG4-024	24.0	6.0	2.5	0.6	
MSBG4-032	32.0	8.0	2.8	0.7	
MSBG4-052	52.0	13.0	3.0	0.7	

Notes: Unit: mm
 1. The part No. will be followed by BK, GR and so on to indicate the color of tube.
 2. Special packages, sizes, colors and cutting into different length can be supplied upon requests.
 3. All numerical data shows the average or typical values, not including the customized sizes.

Application



Drawing



It offers insulation and water-proof protection for a wide assortment of automotive components including wire splices, wire and cable bundles, and wire harness breakout.

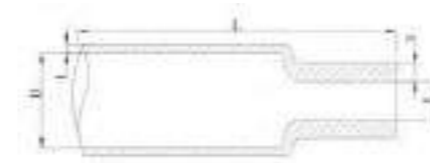
Technical data	
Material	Polyethylene, hot melting adhesive
Shrink ratio	3:1 or 4:1
Working temperature	-45°C~+125°C
Longitudinal shrinkage	≤8%
Color	Black
Approval	CSA, RoHS, UL, Halogen Free
Tool	Heat gun, oven

Non creasing air groove heat shrinkable tube



JDDMA2 non creasing air groove heat shrinkable tube is made of modified high abrasion resistance polyolefin material, there is special air groove in the inner wall, the special design provide very smooth shrinkage without creasing, as well as air-tight seal when the rubber hose was bent.

Drawing



It is ideal mechanical protection of automotive water hose and other rubber hoses.

Technical data	
Material	Polyolefin
Working temperature	-55°C~+125°C
Shrink ratio	2:1
Color	Black
Approval	RoHS, Halogen Free
Tool	Heat gun, oven

Notes:
 1. Special packing, sizes, colors and cutting in to different length can be supplied upon requests.
 2. All the numerical data are the average or typical values, not including the customized sizes.
 3. JDDMA2 39/13*, shink ratio is 3:1

Application



JDDMA2 Dimensions				
Part No.	As supplied	After Shrank		Packing (m/spool)
	I.D. (D)	I.D. Max.(I)	W.T. (T)	
20/9	20	9	0.9	100
25/12	25	12	0.9	50
30/15	30	15	1	50
35/17	35	17	1.1	50
40/20	40	20	1.2	50
50/25	50	25	1.2	25
60/28	60	28	1.2	25
39/13*	39	13	1.5	50

Unit: mm

Physical	Property	Standard	Value	
Physical	Tensile strength	ASTM D2671	>14Mpa	
	Breakdown elongation	ASTM D2671	>450%	
	Aging	Tensile strength	ASTM D2671	>12MPa
		Breakdown elongation	ASTM D2671	>350
Density		ASTM D792	1.1	
Electrical	Water absorption	ASTM D570	≤0.5%	
	Heat shock(200/4hrs)	ASTM D2671	No drop,no cracking	
	Low temperature flexibility	ASTM D2671	50°C/4hrs,no cracking	
	Hardness (Shore D)	ASTM D2671	30-40 HD	
Electrical	Volume resistivity	ASTM D2671	10 ¹⁵ Ω.cm	
	Dielectric strength	ASTM D2671	20KV/mm	

Unit: mm

Brake/Fuel line protection heat shrinkable tube

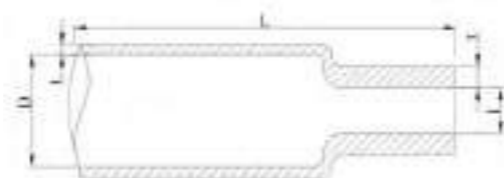


JDDMA3 brake/fuel line protection heat shrinkable tube consists of semi-rigid polyolefin outer layer and thermal melt adhesive inner wall. The feature is very flexible, low shrinkage temperature.

Application



Drawing



It is ideal solution for the strain relief and mechanical protection of the brake/fuel line, hydraulic line which is subject to bending or clamping operations during manufacturing, installation or operation.

Technical data	
Operating temperature	-40°C~80°C
Shrink temperature	110°C
Shrink ratio	1.5:1
Color	Black
Approval	RoHS, Halogen Free

JDDMA3 Dimensions					
Part No.	As supplied		After recovered		Packing (m/spool)
	I.D. (D)	I.D. (I)	W.T. (T)	Adhesive W.T.	
5.5/3.3	5.5	3.3	1	0.2	200
6.5/4.7	6.5	4.7	1	0.2	200
8.5/6.0	8.5	6	1	0.2	100
11.0/7.0	11	7	1	0.2	100
15.0/9.5	15	9.5	1	0.2	100

Unit: mm

Dimensions		
Property	Test method	Values
Tensile strength	ASTM D2671	≥12 MPa
Breakdown elongation	ASTM D2671	≥350%
Tensile strength	ASTM D2671	≥12 MPa
Breakdown elongation	ASTM D2671	≥300%
Outer layer density	ASTM D792	1
Water absorption	ASTM D570	≤0.4%
Heat shock (200°C/4hrs)	ASTM D2671	No drop, No flow
Low temperature flexibility	ASTM D2671	-40°C/4hrs, no cracking
Horizontal impact resistance(-35°C)	ASTM D746	No damage
Drop impact resistance(-35°C)	ASTM D746	No damage
Stress cracking resistance	ASTM D1693 part 5.3.6	No damage
Volume resistivity	ASTM D2671	≥10 ¹⁴ Ω.cm
Dielectric strength	ASTM D2671	≥15KV/mm

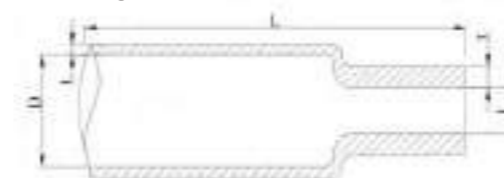
- Notes:
 1. Special packing, sizes, colors and cutting in to different length can be supplied upon requests.
 2. All the numerical data are the average or typical values, not including the customized sizes.
 3. The cross reference Raychem : AP2000

Heat shrinkable tubing for air-conditioning pipe



JDDMA4 heat shrinkable tube is specifically designed for external protection of automotive air-conditioning pipes. It adheres to aluminum very tightly during bending operations. It provides excellent corrosion protection against stone and gravel damage, and eliminates noise and vibration.

Drawing



It is widely used for protecting A/C pipes in the automotive industry.

Technical data	
Material	PE
Color	Black
Operating temperature	-55°C~135°C
Shrink temperature	125°C
Shrink ratio	≥ 2:1
Approval	RoHS

- Notes:
 1. Special packing, sizes, colors and cutting in to different length can be supplied upon requests.
 2. All the numerical data are the average or typical values, not including the customized sizes.

Application



JDDMA4 Dimensions				
Part No.	As supplied	After recovered		Packing (m/spool)
	I.D. (D)	I.D. (I)	W.T.	
12/6	12	6	0.8	50
19/6	19	6	0.8	50
19.0/7.8	19	7.8	0.8	50
19.0/9.5	19	9.5	0.8	50
21.0/7.8	21	7.8	0.8	50
22.0/7.5	22	7.5	1.0	50
22.0/12.7	22	12.7	0.7	50
25.4/9.5	25.4	9.5	0.7	50
26.0/7.8	26	7.8	1.0	50
27.0/12.7	27	12.7	0.7	50
32.0/16.0	32	16	0.9	50
38.1/19.0	38.1	19	1.0	50
40.0/14.0	40	14	0.9	50

Unit: mm

Dual wall adhesive semirigid heat shrinkable tube

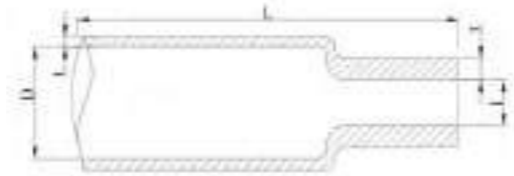


The 4:1 JDDSBG(4X)GR dual wall adhesive semirigid heat shrinkable tube consists of semi-rigid polyolefin outer layer and thermal melt adhesive inner wall. The high shrink ratio allows a few sizes to cover a wide range of splice and component diameters, mechanically tough tubing provides strain relief and abrasion protection of wire splices, terminals, and other components, adhesive-lined against fluids, moisture and other contaminants.

Application



Drawing



It is designed for environmental sealing and electrical insulation of wire splices, termination, and components in automotive, railway, electronic and communication industry.

JDDSBG(4X)GR Dimensions							
Size		As supplied		After recovery			Packing
Inch	mm	I.D.	I.D.	W.T.	Adhesive thickness		
1/4	6	6	1.27	1.30±0.15	0.56±0.15	100/spool	
5/16	8	8	1.65	1.65±0.15	0.76±0.15		
1/2	12	12	2.41	2.00±0.15	1.02±0.15	1.22/pcs	
3/4	18	18	4.45	2.50±0.15	1.37±0.15		

Unit: mm

Hot melt adhesive property		
Property	Test Method	Test Result
Water Absorption	ASTM D570	≤0.2%
Softening Point	ASTM E8	96°C
Strength of peeling (PE)	ASTM D1000	120N/25mm
Strength of peeling (AL)	ASTM D1000	80N/25mm

Technical Data		
Test Item	Test Method	Test Result
Tensile strength(Mpa)	ASTM D2671	≥12
Elongation (%)	ASTM D2671	≥300
Tensile strength after aging (Mpa)	UL 224 158°C×168hr	≥7.3
Elongation after aging (%)	UL 224 158°C×168hr	≥200
Dielectric strength (kv/mm)	IEC 243	≥ 15
Volume resistance (Ω.cm)	ASTM D876	≥ 10 ¹⁴

Technical data	
Shrink ratio	4:1
Longitudinal shrink ratio	≤ 8%
Working temperature	-45°C~125°C
Shrink temperature	120°C
Color	Black
Approval	RoHS

Note:
1.Special packing, sizes, colors and cutting in to different length can be supplied upon requests.
2.All the numerical data are the average or typical values, not including the customized sizes.

Aluminum silicone coated fiberglass sleeving



ASHR aluminum silicone coated fiberglass sleeving is an insulative fiberglass sleeving with heat reflective performance, it is made of braided E-glass fiber coated with silicone elastomer filled with a special aluminum reflective compound. It provides superior insulation to components that must maintain stable temperatures to assure performance efficiency.

Drawing



It is used on wire harnesses, sensor control wiring and cable assemblies in close proximity to engines and exhaust systems.

Application



Technical data	
Material	Fiberglass, silicone
Working temperature	-50°C~+200°C
Flammability	FMVSS302
Color	Silver
Approval	RoHS
Cutting tool	Scissor

Part No.	I.D. (d)	Tolerance	Wall thickness(T)	Packing (m/spool)
ASHR-005	5.0	+0.25	0.55	200
ASHR-008	8.0	+0.25	0.65	100
ASHR-010	10	+0.50	0.75	100
ASHR-012	12	+0.50	0.75	50
ASHR-015	15	+1.00	0.75	50
ASHR-018	18	+1.00	1.00	25
ASHR-020	20	+1.00	1.50	25
ASHR-022	22	+1.00	1.50	20
ASHR-025	25	+1.00	1.50	15

Unit: mm

Notes:
1.This sleeving has slightly expandable character, the expansion rate is 120%.
2.The customized size, special package, cut into different length can be supplied upon requests.
3.All the numerical data are average or typical values, not including customized sizes.

Corrugated flexible conduit

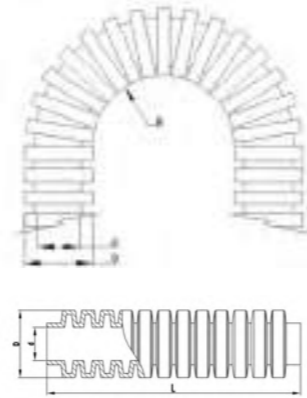


The corrugated flexible conduit is designed for resistance to mechanical wear for rubber hose, plastic pipe and wire harness in automotive field. It provides not only mechanical protection but also anti UV radiation, weathering and chemicals. The flexible body allows for covering on the cables in the corner and elbow easily. We also supply the split style for easy installation and removal.

Application



Drawing



It is widely used for protecting wires and cables harnesses in automotive, equipment, railway etc. It also can be used for protecting the hydraulic rubber hoses.

Part No.	Material	Operating range	Flammability
LGA3210RS	PA	-40°C~+130°C	FMVSS 302
LGP3300RS	PP	-30°C~+120°C	FMVSS 302

LGA3210RS & LGP3300RS Dimensions							
Size	I.D.	O.D.	Wall thickness	W	L	Bending radius	Packing (m/roll)
φ 5	5.2±0.4	7.6±0.4	0.20±0.07	1.4±0.2	2.5±0.2	8	100
φ 7	7.4±0.4	10.2±0.4	0.27±0.1	1.5±0.2	2.7±0.2	10	100
φ 10	10.7±0.4	14.1±0.4	0.27±0.1	1.5±0.2	2.7±0.2	20	100
φ 13	13.2±0.4	17.5±0.4	0.27±0.1	1.9±0.2	3.5±0.2	30	100
φ 15	15.2±0.4	19.5±0.4	0.27±0.1	1.9±0.2	3.5±0.2	40	100
φ 17	17.2±0.4	22.0±0.4	0.27±0.1	1.9±0.2	3.5±0.2	45	100
φ 19	19.5±0.4	23.8±0.4	0.27±0.1	1.9±0.2	3.5±0.2	50	100
φ 22	22.1±0.4	27.0±0.4	0.30±0.1	2.4±0.2	4.2±0.2	55	50
φ 25	25.0±0.4	30.0±0.5	0.35±0.1	2.5±0.2	4.3±0.2	60	50
φ 28	28.2±0.4	34.0±0.5	0.35±0.1	2.5±0.2	4.4±0.2	70	25
φ 32	32.2±0.4	38.0±0.5	0.35±0.1	2.5±0.2	4.4±0.2	80	25

Unit: mm

- Notes:
1. Special colors, customized size, special package, cut into different length can be supplied upon requests.
 2. All numeric data shows the average or typical values, not including the customized sizes.

Corrugated flexible conduit

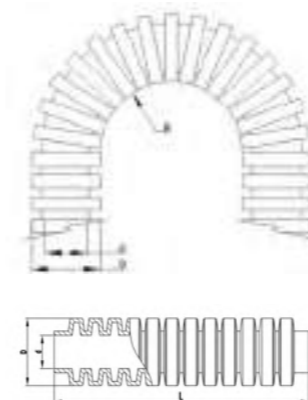


The corrugated flexible conduit is designed for resistance to mechanical wear for rubber hose, plastic pipe and wire harness in automotive field. It provides not only mechanical protection but also anti UV radiation, weathering and chemicals. The flexible body allows for covering on the cables in the corner and elbow easily. We also supply the split style for easy installation and removal.

Application



Drawing



It is widely used for protecting wires and cables harnesses in automotive, equipment, railway etc. It also can be used for protecting the hydraulic rubber hoses.

Part No.	Material	Operating range	Flammability
LGP3300	PP	-30°C~+120°C	FMVSS 302
LGE3400	PE	-40°C~+90°C	UL 94V-2
LGA3210	PA	-40°C~+130°C	UL 1696

Datasheet for LGP3300, LGE3400 & LGA3210							
Size	I.D.	O.D.	Wall thickness	W	L	Bending radius	Packing
φ 4.8	4.8±0.3	7.0±0.3	0.20±0.05	1.40±0.2	2.3±0.2	5	100
φ 5.5	5.5±0.3	8.5±0.3	0.25±0.05	1.75±0.2	2.6±0.2	8	100
φ 7.0	7.0±0.3	10.0±0.3	0.27±0.05	2.00±0.2	2.9±0.2	10	100
φ 8.5	8.5±0.3	11.0±0.3	0.30±0.05	1.80±0.2	2.8±0.2	15	100
φ 10.0	10.0±0.3	13.0±0.3	0.30±0.05	1.90±0.2	2.8±0.2	20	100
φ 12.0	12.0±0.4	15.8±0.4	0.30±0.05	2.20±0.2	3.3±0.2	30	100
φ 14.3	14.3±0.4	18.5±0.4	0.32±0.05	2.60±0.2	3.6±0.2	40	100
φ 17.0	17.0±0.4	21.2±0.4	0.32±0.05	2.40±0.2	3.3±0.2	45	100
φ 21.0	21.0±0.4	25.0±0.5	0.35±0.05	2.30±0.2	3.4±0.2	50	100
φ 23.0	23.0±0.5	28.5±0.5	0.35±0.05	2.30±0.2	3.3±0.2	55	50
φ 29.0	29.0±0.5	34.5±0.5	0.40±0.05	2.40±0.2	3.4±0.2	60	50
φ 36.0	36±0.5	42.5±0.5	0.45±0.05	2.9±0.2	4.3±0.2	70	25
φ 48.0	48±0.5	54.5±0.5	0.5±0.05	3.0±0.2	4.3±0.2	80	25

Unit: mm

- Notes:
1. Special colors, customized size, special package, cut into different length can be supplied upon requests.
 2. All numeric data shows the average or typical values, not including the customized sizes.

