

高い嵌合強度・長尺の結束に最適  
Super strong closure mating. Perfect for bundling long wires

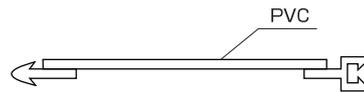
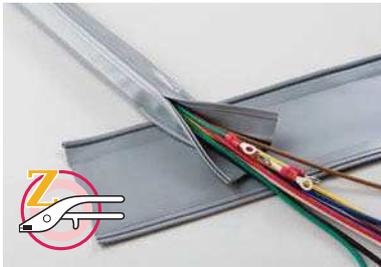
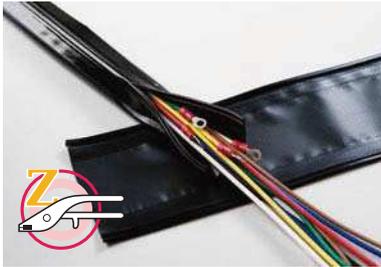
# 結束保護チューブ ジッパータイプ

Protective Tubing - Zipper Type

## GPJ(クロ) / GPJ(グレー)



配線結束へ結束保護タイプ



品名 Item Name	GPJ(クロ)	GPJ(グレー)
定尺 Standard Length	φ10~50: 50m、φ70 φ100: 25m、φ200 φ300: 10m	
サイズ(φ) Diameter	10,15,20,25,30,40,50,70,100,200,300 (グレータイプは15~) (Gray type starts at φ15)	
シート部 Sheet	ポリエステルクロス入り軟質塩化ビニル Polyester cloth-infused flexible PVC UL94 VTM-0相当品/UL非登録 (UL94 VTM-0-equivalent product)	
嵌合部 Closing Mechanism	厚み: 0.34mm Thickness ジッパー(半硬質塩化ビニル) Zipper (Semirigid PVC)	
表面色 Color	黒 Black	グレー Gray
適用使用温度 Operating Temperature	-15°C~+60°C	

※黒色タイプについては難燃グレード品 (φ100 以下) もあります。別途お申し付けください。  
(UL224 VW-1 E174912)  
※ Black type is also available in flame-resistant grade (φ100 and smaller) Please inquire separately.  
(UL224 VW-1 E174912)  
※大口径品 (φ100 超) の納期については弊社営業部までお問い合わせください。  
※ Please inquire about availability of large-diameter items (φ100 and larger) .

## ZTZ-63B



UL224  
VW-1

難燃性  
Flame Resistant

耐熱  
Heat Resistant

耐電圧  
Voltage Proof

▼難燃(VW-1)・耐熱(105°C)・耐電圧(600V)

▼UL224 VW-1を取得(E131167)

▽ Flame resistant (VW-1), heat resistant (105°C), and voltage proof (600V)  
▽ UL224 VW-1 certified (No.E131167)



品名 Item Name	ZTZ-63B
定尺 Standard Length	50m
サイズ(φ) Diameter	15,20,25,30,40,50,70,100
シート部 Sheet	軟質塩化ビニル flexible PVC 厚み: 0.5mm Thickness
嵌合部 Closing Mechanism	ジッパー(半硬質塩化ビニル) Zipper (Semirigid PVC)
表面色 Color	黒 Black
適用使用温度 Operating Temperature	-15°C~+105°C (シート部 Sheet)

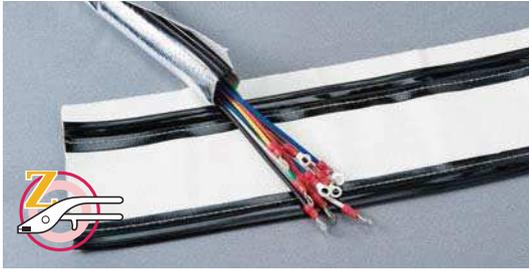
# ALG



耐熱  
Heat Resistant

## ▼高温所での配線結束保護(シート部耐熱180℃)

▽ For bundling and protecting wiring in hot areas  
(Heat Resistant Sheet can withstand 180°C)



品名 Item Name	<b>ALG</b>
定尺 Standard Length	50m乱 Approx.
サイズ(φ) Diameter	15,20,25,30,40,50,70,100
シート部 Sheet	アルミ蒸着ガラス繊維布 Aluminum metallized fiberglass cloth 厚み: 0.71mm Thickness
嵌合部 Closing Mechanism	ジッパー(半硬質塩化ビニル) Zipper (Semirigid PVC)
表面色 Color	シルバー(裏面:白) Silver (White backing)
適用使用温度 Operating Temperature	-15°C~+180°C (シート部 Sheet)

※嵌合部の耐熱保護用にシート部がオーバーラップしていますので耐熱テープ・耐熱バンド等で固定してください

※短尺品 (5m・10m・25m) もございます。

※ Sheet overlaps to protect the mating portion from heat, please use heat-resistant band etc. to hold it in place.

※ Also available in short sizes (5m, 10m, 25m) .

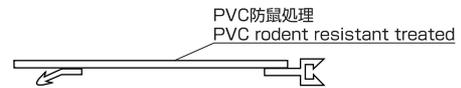
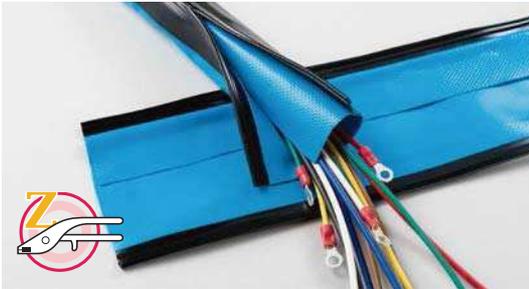
# ボーン Bohso



防鼠  
Rodent Resistant

## ▼鼠害防止の配線結束・保護用

▽ For rodent-resistant wire bundling and protection



品名 Item Name	<b>ボーン Bohso</b>
定尺 Standard Length	50m
サイズ(φ) Diameter	15,20,25,30,40,50,70,100
シート部 Sheet	PETクロス入り塩化ビニル PET cloth-infused PVC 厚み: 0.55mm Thickness
嵌合部 Closing Mechanism	ジッパー(半硬質塩化ビニル) Zipper (Semirigid PVC)
表面色 Color	青 Blue
適用使用温度 Operating Temperature	-15°C~+60°C

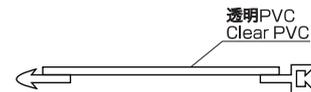
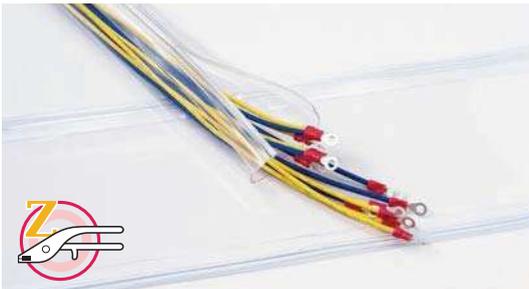
# AP (T)



透過性  
permeability

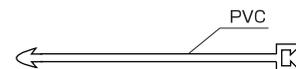
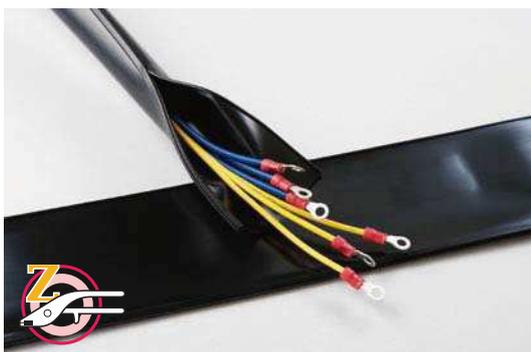
## ▼内部配線の確認可能

▽ Allows checking of wires post installation



品名 Item Name	<b>AP (T)</b>
定尺 Standard Length	50m
サイズ(φ) Diameter	15,20,25,30,40,50,70,100
シート部 Sheet	軟質塩化ビニル(透明) Flexible PVC (clear) 厚み: 0.4mm Thickness
嵌合部 Closing Mechanism	ジッパー(半硬質塩化ビニル) Zipper (Semirigid PVC)
表面色 Color	透明 Clear
適用使用温度 Operating Temperature	-15°C~+60°C

# AP (B)



品名 Item Name	<b>AP (B)</b>
定尺 Standard Length	100m
サイズ(φ) Diameter	10,15,20
シート部 Sheet	半硬質塩化ビニル Semirigid PVC 一体押出成形品 One-piece extrusion 厚み: 0.4mm Thickness
嵌合部 Closing Mechanism	ジッパー(半硬質塩化ビニル) Zipper (Semirigid PVC)
表面色 Color	黒 Black
適用使用温度 Operating Temperature	-15°C~+60°C

工具不要・分岐配線の結束に最適  
No tools needed. Perfect for wire bundling

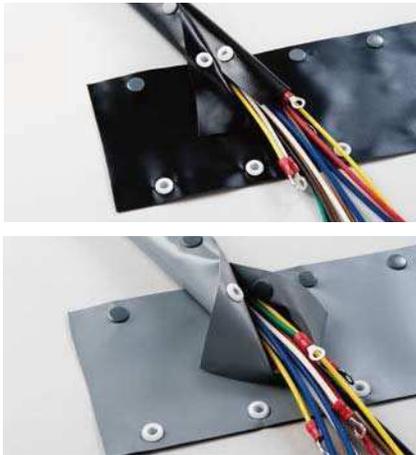
# 結束保護チューブ ホックタイプ

Protective Tubing - Snap Type



▼リールレス仕様  
▽ Reeless versions

## OTB / OTG



▼リールレス仕様可能  
▽ Reeless versions are also available  
※品番例 (φ30の製品) : OTG-30Z  
※ Example Item Number (φ30 product) : OTG-30Z



品名 Item Name	OTB	OTG
定尺 Standard Length	50m(リールレス Reeless: 25m×2)	
サイズ(φ) Diameter	10,15,20,25,30,40,50,70,100	
シート部 Sheet	ポリエステルクロス入り軟質強化ビニル Polyester cloth-infused flexible PVC UL94 VTM-0相当品/UL非登録 (UL94 VTM-0-equivalent product)	
車材燃試:「難燃性」 RSMCT:「FR」	10-503K	—
嵌合部 Closing Mechanism	厚み: 0.34mm Thickness ホック (ポリアセタール樹脂) /UL94 HB Snap (FR polyacetal resin)	
表面色 Color	黒 Black	グレー Gray
適用使用温度 Operating Temperature	-15℃~ +60℃	

配線結束へ結束保護タイプ

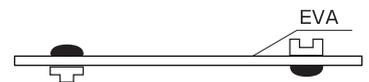
## “ハロゲンフリー”対応の結束チューブ “Halogen free” Protective Tubing

## OPE



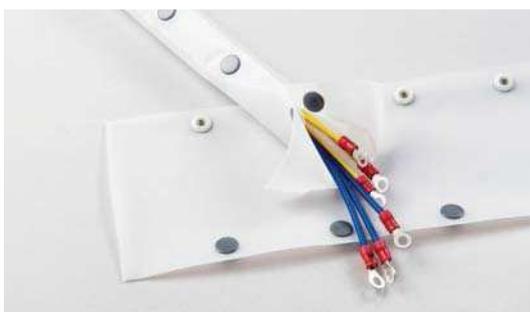
▼ハロゲンフリー対応のポリオレフィン系樹脂シート採用  
▼リールレス仕様可能  
▽ with Halogen-free polyolefin resin sheet  
▽ Reeless versions are also available

※品番例 (φ30の製品) : OTE-30Z  
※ Example Item Number (φ30 product) : OTE-30Z



品名 Item Name	OPE
定尺 Standard Length	50m(リールレス Reeless: 25m×2)
サイズ(φ) Diameter	10,15,20,25,30,40,50,70,100
シート部 Sheet	ポリオレフィン系樹脂シート Polyolefin resin sheet UL94 VTM-0相当品/UL非登録 (UL94 VTM-0-equivalent product)
	ハロゲンフリー対応 Halogen-free
	厚み: 0.3mm Thickness
嵌合部 Closing Mechanism	ホック(ナイロン)/UL94-V-0 Snap (nylon)
表面色 Color	黒 Black
適用使用温度 Operating Temperature	-15℃~ +60℃

## OPE



品名 Item Name	OPE
定尺 Standard Length	30m乱 Approx.
サイズ(φ) Diameter	10,15,20,25,30,40,50,70,100
シート部 Sheet	PTFE
	厚み: 0.2mm Thickness
嵌合部 Closing Mechanism	ホック(ナイロン)/UL94-V-0 Snap (nylon)
表面色 Color	白 White
適用使用温度 Operating Temperature	-15℃~ +260℃ (シート部 Sheet)

※この製品は定尺内に1箇所の分割部が含まれる場合があります。(最長尺: 10m)  
※ This product may include a division point somewhere within the 30 meter standard length. (The minimum length of the shortest section will be 10m.)



## Snap Tube

**Ro** Product in compliance with RoHS Directive

Passed Railway Vehicle Materials Fire Test (Certified level: Fire-retardant)

### Features

- Snap type that can be fit and released easily without using a tool.
- Available in 9 sizes from 10φ to 100φ, the tube ensures ideal installation for different wiring needs.
- The snap design makes it easy to change or check the wiring.
- The material is so flexible that it can fit any shape and help produce a neat appearance.
- Partially detachable, the tube permits the branching of wiring.
- The reversible type (black and gray) flexibly meets application purposes.
- The reversible type (black and gray) flexibly satisfies inventory needs, contributing a lot to inventory reduction.

### Color

- Reversible type (black & gray)
- Gray

### Packaging and Packaging Unit

<25m>

- Tube is packed in a compact cardboard case. When using the tube, you can just pull out the required length from the slot of the case.

<50m>

- Tube is wound on a bobbin and packed in a cardboard case. When using the tube, you can just pull out the required length from the slot of the case.

### Designation Format

<25m>

- Reversible type (R): KST-(Nominal Size)R. Example: Nominal size of 20φ > KST-20R
- Gray type (G): KST- (Nominal Size)G. Example: Nominal size of 30φ >KST-30G

<50m>

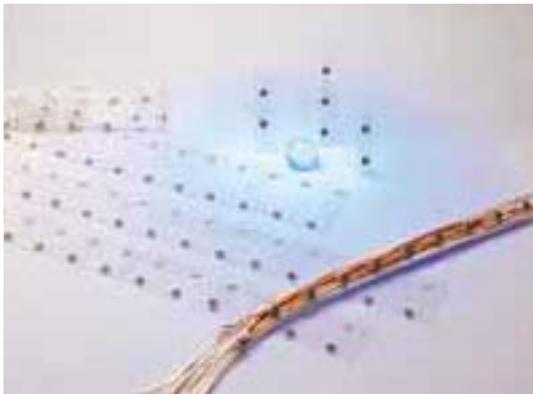
- Reversible type (R): KSTL-(Nominal Size)R. Example: Nominal size of 20φ >KSTL-20R
- Gray type (G): KSTL-(Nominal Size)G. Example: Nominal size of 30φ >KSTL-30G

Part No.	Nominal Size	Length	Material/Characteristics
KST-10	10φ	25m	· Sheet section: Fire-resistant vinyl chloride with polyester fabric · Interlock section: Snap buttons (Polyacetalresin)
KST-15	15φ		
KST-20	20φ		
KST-25	25φ		
KST-30	30φ		
KST-40	40φ		
KST-50	50φ		
KST-70	70φ		
KST-100	100φ		

Sheet section: VTM-0

Part No.	Nominal Size	Length	Material/Characteristics
KSTL-10	10φ	50m	· Sheet section: Fire-resistant vinyl chloride with polyester fabric · Interlock section: Snap buttons (Polyacetalresin)
KSTL-15	15φ		
KSTL-20	20φ		
KSTL-25	25φ		
KSTL-30	30φ		
KSTL-40	40φ		
KSTL-50	50φ		
KSTL-70	70φ		
KSTL-100	100φ		

Sheet section: VTM-0



## Snap Tube Clear Type

**Ro** Product in compliance with RoHS Directive

### Features

- The clear sheet permits the wireway interior to be checked.
- Like conventional snap tubes, the tube requires no special tool for binding plus is quick and easy to fit and release.
- The snap design makes it easy to change or check the wiring.
- The material is so flexible that it can fit any shape and help produce a neat appearance.
- Available in a variety of sizes, the tube ensures ideal installation for different wiring needs.

### Color

- Clear

Part No.	Nominal Size	Length	Material/Characteristics
KST-10C	10φ	25m	· Sheet section: Fire-resistant vinyl chloride · Interlock section: Snap buttons (Polyacetal resin)
KST-15C	15φ		
KST-20C	20φ		
KST-25C	25φ		
KST-30C	30φ		
KST-40C	40φ		
KST-50C	50φ		
KST-70C	70φ		
KST-100C	100φ		

### ECO Snap Tube



\*For more info, see ECO Snap Tube (P.17).



## Magic Tube

**Ro** Product in compliance with RoHS Directive

Passed Railway Vehicle Materials Fire Test (Certified level: Fire-retardant)

### AAA

- The magic fasteners permit the tube to be fit and released quickly without using a tool.
- Available in 8 sizes from 15φ to 100φ, the tube ensures ideal insulation for different wiring needs.
- Quick and easy to fit and release, the tube makes it easy to change or check the wiring.
- The material is so flexible that it can fit any shape and help produce a neat appearance.
- Partially detachable, the tube permits the branching of wiring.
- The reversible type (black and gray) flexibly meets application purposes.
- The reversible type (black and gray) flexibly satisfies inventory needs, contributing a lot to inventory reduction.

### Color

- Reversible type (black & gray)
- Gray

### Packaging and Packaging Unit

- Every 25m of a tube is packed in a compact cardboard case. When using the tube, you can just pull the required length out of the slot of the case.

### Designation Format

- Reversible type (R):  
KMT-N(Nominal Size)R  
Example: Nominal size of 20φ > KMT-N20R
- Gray type (G):  
KMT-N(Nominal Size)G  
Example: Nominal size of 20φ > KST-N20G

Part No.	Nominal Size	Length	Materials/Characteristics
KMT-N15	15φ	25m	· Sheet section: Fire-resistant vinyl chloride with polyester fabric · Interlock section: Hook-and-loop fasteners Width of hook and loop fasteners 15φ-20φ: 12mm 25φ-100φ: 16mm
KMT-N20	20φ		
KMT-N25	25φ		
KMT-N30	30φ		
KMT-N40	40φ		
KMT-N50	50φ		
KMT-N70	70φ		
KMT-N100	100φ		

Sheet portion: Equivalent to VTM-O specification complied product

Electric-Materials



## Slide Lock Tube

**Ro** Product in compliance with RoHS Directive

Passed Railway Vehicle Materials Fire Test (Certified level: Fire-retardant)

### Features

- Extra workability is ensured by the material of the interlock section that changes its hardness little even at a low temperature.
- The interlock section provides excellent air-tightness to prevent the inclusion of external dust.
- Available in 10 sizes from 10φ to 100φ, the tube ensures ideal insulation for different wiring needs.
- The material is so flexible that it can fit any shape and help produce a neat appearance.

### How to Interlock

- The tube can be interlocked easily using the exclusive slider (optional).

### Color

- Black
- Gray

### Packaging

- The external case has a slot from which you can pull the tube out to use.
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

### Designation Format

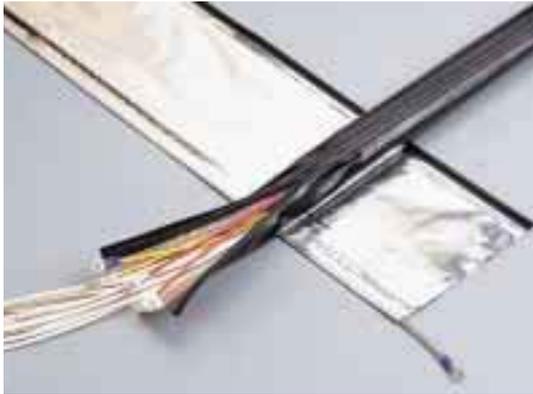
- Black type:  
KSL-(Nominal Size)  
Example: Nominal size of 10φ > KSL-10
- Gray type:  
KSL-(Nominal Size)G  
Example: Nominal size of 25φ > KSL-25G



Exclusive slider (optional)

Part No.	Nominal Size	Length	Materials/Characteristics
KSL-10	10φ	50m	· Sheet section: Fire-resistant vinyl chloride with polyester fabric · Interlock section: Fire-resistant semi-rigid vinyl chloride
KSL-15	15φ		
KSL-20	20φ		
KSL-25	25φ		
KSL-30	30φ		
KSL-35	35φ		
KSL-40	40φ		
KSL-50	50φ		
KSL-70	70φ	25m	
KSL-100	100φ		

Sheet section: VTM-O



## Noise Protecting Tube

Slide lock Type



Product in compliance with RoHS Directive

Passed Railway Vehicle Materials Fire Test (Certified level: Fire-retardant)

### Features

- Slide lock tube that uses aluminum foil with high shielding effects to control noise.
- The material is so flexible that it can fit any shape and produce a neat appearance.
- The interlock section provides excellent air-tightness to prevent the inclusion of external dust.
- Available in 9 sizes from 15φ to 100φ, the tube ensures ideal insulation for different wiring needs.

### Packaging

- The external case has a slot from which you can pull the tube out to use.
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

### How to Use

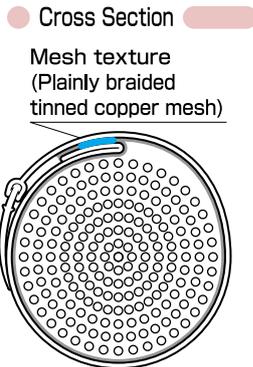
- Wrap the tube around pieces in such manner that the aluminum foil comes inside, and interlock the tube such that the mesh texture contacts with the aluminum foil.
- The mesh texture can serve as a ground wire.

### How to Interlock

- The tube can be interlocked easily using the exclusive slider (optional).

### Color

- Black

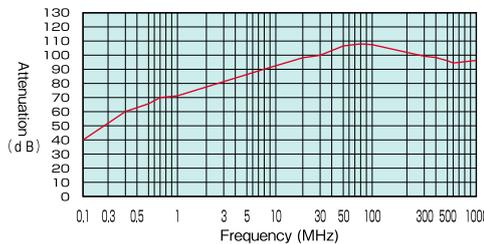


Part No.	Nominal Size	Length	Materials/Characteristics
KSLA-15	15φ	25m	· Sheet section: Fire-resistant flexible vinyl chloride + PET + Aluminum foil + 1.25sq mesh texture (Plainly braided tinned copper mesh)  · Interlock section: Semi-rigid fire-resistant vinyl chloride
KSLA-20	20φ		
KSLA-25	25φ		
KSLA-30	30φ		
KSLA-35	35φ		
KSLA-40	40φ		
KSLA-50	50φ		
KSLA-70	70φ		
KSLA-100	100φ		

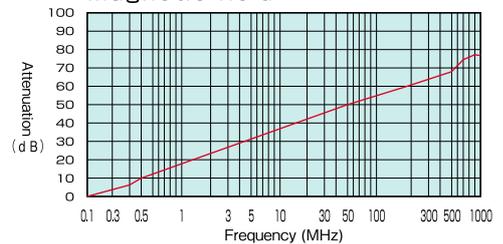
Sheet portion: Equivalent to V-O specification complied product

### Table of Shielding Effects

#### Electric field



#### Magnetic field



\*The above table of shielding effects shows the data on noise protecting tubes of slide lock types and for flat cable. The data are not guaranteed but measured values.



Exclusive slider (optional)



## Noise Protecting Tube for Flat Cable



Product in compliance with RoHS Directive

Passed Railway Vehicle Materials Fire Test (Certified level: Fire-retardant)

### Features

- Perfect for shielding of flat cables and ribbon cables.
- The aluminum foil interior sheathes cables to ensure the shielding effects.
- The material is so flexible that it can fit any shape and help produce a neat appearance.

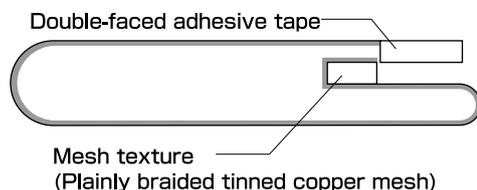
### Color

- Black

### Packaging

- The external case has a slot from which you can pull the tube out to use.
- Not using any metallic parts, the bobbin and the external case can be readily disposed of.

### Cross Section



Part No.	Applicable Cable Size	Product Length	Materials/Characteristics
	Conductors   Cable width	Width	
KATF-10	10   12.8mm	15.0mm	· Sheet section: Fire-resistant flexible vinyl chloride + PET + Aluminum foil + 1.25sq mesh texture (Plainly braided tinned copper mesh)  · Interlock section: Double-faced adhesive tape Tape width KATF-10 5mm KATF-16to60 10mm
KATF-16	16   20.3mm	22.5mm	
KATF-20	20   25.4mm	27.5mm	
KATF-26	26   33.0mm	35.0mm	
KATF-34	34   43.2mm	45.5mm	
KATF-40	40   50.8mm	55.5mm	
KATF-50	50   63.5mm	65.5mm	
KATF-60	60   76.2mm	78.5mm	

Sheet portion: Equivalent to V-O specification complied product



## Noise Protecting Sleeve

**RoHS** Product in compliance with RoHS Directive

### Features

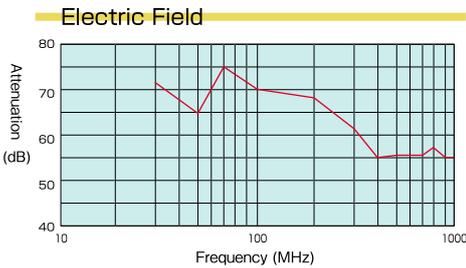
- Excellent in elasticity, the sleeve can stretch about 1.5 to 4 times if compressed.
- Highly flexible and ideal for shielding of movable parts.
- The braided conductive threads provide excellent shielding effects.
- Available in 4 sizes from 3φ to 19φ, the sleeve ensures ideal insulation for different wiring needs.
- The material is so flexible that it can fit any shape and help produce a neat appearance.
- Mesh type that prevents the accumulation of moisture and heat.

### Material

- Core material: Glass fiber
- Surface: Tinned copper foil

Part No.	Min Size	Max Size	Width	Length
KPTS-3	3φ	12φ	6mm	100m
KPTS-6	6φ	22φ	15mm	
KPTS-12	12φ	28φ	19mm	
KPTS-19	19φ	32φ	25mm	

### Table of Shielding Effects



\*The above data are not guaranteed but measured values that were obtained by the Absorption clamp method.



## Noise Protecting Mesh

**RoHS** Product in compliance with RoHS Directive

### Features

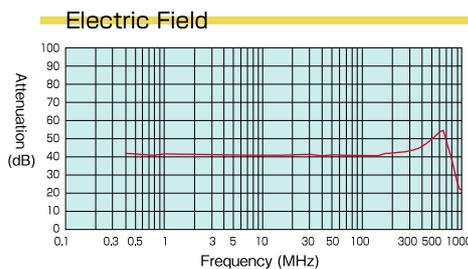
- Superb shielding effects can be expected by twisting the tape up around the cable or wire harness with 1/2 of the width overlapping each other.
- The cylindrically braided thin wires are folded for greater flexibility.
- The plated wires provide excellent corrosion resistance.
- Mesh type that prevents the accumulation of moisture and heat.

### Material

- Tinned flexible copper wire (0.12mm)

Part No.	Width	Length
KSMT-13	13mm	10m
KSMT-25	25mm	
KSMT-38	38mm	
KSMT-50	50mm	

### Table of Shielding Effects



\*The above data are not guaranteed but measured values that were obtained by the KEC method.