



G•APEX

HEAT SHRINK TUBING AND ACCESSORIES

G•APEX

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台灣雲林應用材料股份有限公司

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Taiwan Yun Lin Applied Materials Co., Ltd.



企業簡介 Company Profile

For over 20 years, G-APEX has been focused on research and development the new materials and products in the fields of heat shrink, cold shrink tubing, and tapes. To solve the requirement of quality, safety, cost reduction, and services for the market. Providing solutions of electrical insulation and sealing protection applications for different industries.

Production: 50 million meters of monthly production capabilities of heat shrinkable tubing, the strongest product supplying abilities.

Technology: 21 patents and professional R&D team.

Certification: ISO9001、UL、ROHS、REACH、ISO10993、ISO14001、IATF16949, providing a reliable quality guarantee.

Services: Mass storage of products and our service staff in Taiwan, Japan, Thailand, Vietnam, and China, providing the fastest ship out and instant services.

Under our team structure, we're confident to fulfill all your inquiries.

G-APEX 20年來長期致力在熱縮套管、冷縮套管、膠帶領域研究開發新材料及產品，解決市場對品質、安全性、成本降低及服務的需求，提供了不同行業電氣絕緣及密封保護應用解決方案。

生產：熱縮套管月產能5千萬米，提供強大的供貨能力。

技術：21項專利技術及專業的工程研發團隊。

認證：ISO9001、UL、ROHS、REACH、ISO10993、ISO14001、IATF16949提供可靠的品質保證。

服務：台灣、日本、泰國、越南、中國各地提供大量產品庫存倉儲及服務人員，提供最快速的發貨及服務。在整體的團隊架構下，我們很自信可以完成對您的需求所託。



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Ultra thin wall, flame retardant heat shrink tubing
- G1** 無阻燃型熱縮套管
Non flame retardant heat shrink tubing
- G5-3X** 高收縮倍率熱縮套管
High shrink ratio heat shrink tubing
- G5-135** 135°C 阻燃型熱縮套管
135°C Flame retardant heat shrink tubing
- G5-YG** 接地標示用黃綠熱縮套管
Yellow & Green striped heat shrink tubing
- GA** 耐磨型PE熱縮套管
Abrasion-resistant PE heat shrink tubing
- YLPET** PET熱縮套管
PET heat shrink tubing
- DR** 150°C 耐油熱縮套管
150° Diesel resistant elastomeric heat shrinkable tubing

含膠型熱縮套管 ADHESIVE-LINED HEAT SHRINK TUBING

- AIS** 雙壁含膠型熱縮套管
Dual wall heat shrink tubing
- AIS-ES** 車用線束含膠熱縮套管
Adhesive heat shrinkable tubing for automotive
- AECM** 迷你電線防水封帽
Miniature waterproof cable end cap
- ATM** 通用型中壁含膠熱縮套管
Medium wall heat shrink tubing
- ATM-FR** 通用型中壁阻燃含膠熱縮套管
Flame retardant medium wall heat shrink tubing
- AOS** 柔軟型中壁含膠熱縮套管
Flexible medium wall heat shrink tubing
- ABS** 防水端子用熱縮套管
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- ASM** 通用型厚壁含膠熱縮套管
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Heavy wall high shrink ratio heat shrink tubing

耐高溫熱縮套管 HIGH TEMPERATURE RESISTANT HEAT SHRINK TUBING

- HTK150** 柔軟型PVDF熱縮套管
Flexible PVDF heat shrinkable tubing
- KYNAR** 半硬型PVDF熱縮套管
Semi-rigid PVDF heat shrinkable tubing
- VITON** 氟橡膠熱縮套管
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- FEP** 200°C FEP熱縮套管
200°C FEP heat shrinkable tubing
- PTFE** 260°C PTFE熱縮套管
260°C PTFE heat shrinkable tubing
- PFA** 260°C PFA熱縮套管
260°C PFA heat shrinkable tubing

醫療等級熱縮套管 MEDICAL-GRADE HEAT SHRINKABLE TUBING

- MTA** 醫療級半硬質PVDF熱縮套管
Medical grade semi-rigid PVDF heat shrinkable tubing
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Medical grade ultra thin wall LDPE heat shrinkable tubing
- MTC** 醫療級柔軟型PVDF熱縮套管
Medical grade flexible PVDF heat shrinkable tubing
- MTE** 醫療級LDPE熱縮套管
Medical grade LDPE heat shrinkable tubing
- MTF** 醫療級高柔軟性熱縮套管
Medical grade high flexibility heat shrinkable tubing

冷縮套管 COLD SHRINK TUBING

- ANC** 硅矽橡膠冷縮套管
Cold shrink silicone rubber sleeve
- GNC** 硅矽橡膠冷縮套管
Cold shrink silicone rubber sleeve
- NS7** 硅矽橡膠握把冷縮套管
Cold shrink silicone rubber sleeve for handle
- NS8** EPDM橡膠握把保護冷縮套管
Cold shrink EPDM rubber sleeve for handle
- EEC** EPDM橡膠冷縮封帽
Cold shrink EPDM rubber end cap
- ENC** EPDM 橡膠冷縮套管
Cold shrink EPDM rubber sleeve
- DNC** 硅矽橡膠雙層冷縮套管
Dual layer cold shrink silicone rubber sleeve

編織網管 BRAIDED SLEEVING

- BS5000** 編織熱縮套管
Fabric heat shrinkable tubing
- BS1000** PET 半剛性捲式編織管
PET semi-rigid wrappable split braided sleeving
- BS3000** 汽車線束用捲式編織管
Wrap around braided sleeving for automotive wire assembly
- BSPET** PET 編織擴充管
PET expandable braided sleeving

電線連接用熱縮套管 ELECTRICAL INTERCONNECT HEAT SHRINKABLE TUBING

- GAST-R** 125°C 防水焊錫環熱縮中接管
125°C Solder sleeve wire splices
- GAST-B** 125°C 防水焊錫環熱縮中接管
125°C Solder sleeve wire splices
- GAST-RS** 125°C 防水焊錫環熱縮中接管
125°C Solder sleeve wire splices
- CRIMP** 防水熱縮中接管
Waterproof heat shrinkable crimp splices
- GAST-E** 防水焊錫環熱縮封帽
Solder grip closed end connector splices

高壓絕緣熱縮套管 HIGH VOLTAGE INSULATION HEAT SHRINK TUBING

- HB1** 高壓母排熱縮套管 (耐壓3.6kV)
Busbar insulating heat shrink tubing (Withstand voltage up to 3.6kV)
- HB2** 高壓母排熱縮套管 (耐壓24kV)
Busbar insulating heat shrink tubing (Withstand voltage up to 24kV)
- HB3** 高壓母排熱縮套管 (耐壓36kV)
Busbar insulating heat shrink tubing (Withstand voltage up to 36kV)

熱縮模塑套件 MOULDED SHAPES

- BOOT** 模縮套
Molded parts
- AEC** 電纜防水熱縮封帽
Heat shrinkable cable end cap

光纖用熱縮套管 FIBER OPTICAL HEAT SHRINKABLE TUBING

- ADW** 光纖接續盒專用防水熱縮套管
Heat shrinkable tubing for fiber optic splice closure
- FOSP** 光纖保護套管
Heat shrinkable fiber optic splice protector
- FOSP-K** 高溫光纖保護套管
High-temperature optical fiber protection sleeve

膠帶 TAPE

- WT800** 自融性防水膠帶
Rubber mastic tape
- WT200** 自融性防水膠帶
Rubber mastic tape
- WT300** 自融性絕緣填縫膠膏帶
Self-fusing insulation caulking mastic tape
- HBT** 耐電壓矽膠膠帶 (耐壓15~24kV)
High voltage silicone busbar insulation tape (Withstand voltage up to 15~24kV)

熱縮套管組合包 ASSORTMENT KIT

- K1-101** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K1-102** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K1-201** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K1-301** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K2-101** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K2-102** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K2-103** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K4-101** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K5-101** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K6-101** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K7-101** 熱縮套管組裝盒
Heat shrinkable tubing kit
- K7-201** 熱縮套管組裝盒
Heat shrinkable tubing kit
- B2** 熱縮套管捲式包 (紙盒)
Tube and sleeve - mini box
- R2** 熱縮套管圓形泡殼包裝
Tube and sleeve - blister pack
- GR** 熱縮套管捲式包裝
Heat shrinkable tubing pack - mini spool pack

號碼標識系統 MARKING SYSTEMS

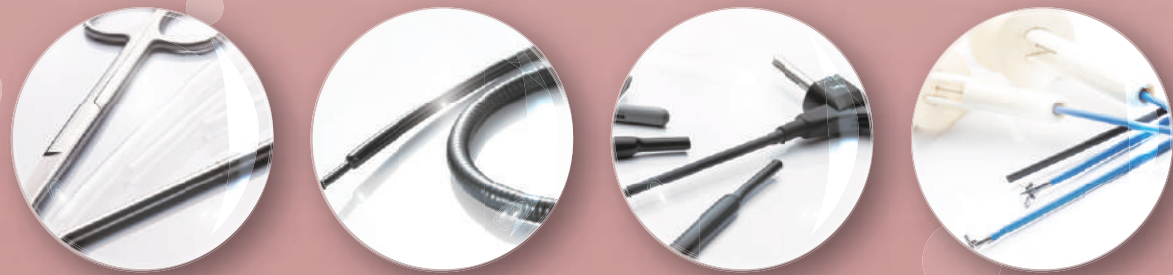
- 135°C TMS** 軌道式號碼標示印字熱縮套管
Heat shrink markers
- 125°C TMS** 軌道式號碼標示印字熱縮套管
Heat shrink markers
- 135°C CTMS** 捲式號碼標示印字熱縮套管
Heat shrink markers
- 125°C CTMS** 捲式號碼標示印字熱縮套管
Heat shrink markers
- MP** 貼紙簿
Pocket pack marker book
- MO** 號碼標誌器
Snap-on wire markers
- MH** PVC熱縮電線標示號碼圈
PVC Heat shrinkable wire marking number ring

工具 TOOL

- GHG** 微型熱風槍
Gas heat gun
- BSC** 熱裁切機
Hot knife device

MEDICAL-GRADE HEAT SHRINKABLE TUBING

醫療等級熱縮套管



MEDICAL-GRADE HEAT SHRINKABLE TUBING

MEDICAL-GRADE HEAT SHRINKABLE TUBING



Medical grade semi-rigid PVDF heat shrinkable tubing 醫療級半硬質PVDF熱縮套管



Product Dimensions 產品規格

Part Number	Nominal size 公稱尺寸	As supplied (mm) 收縮前	After recovered (mm) 收縮後		Standard Length (Meter)
產品型號	mm	I.D.(min.) 內徑(最小)	I.D.(max) 內徑(最大)	W.T. 壁厚	標準長度(米)
MTA-0012	1.2	1.2	0.6	0.25±0.05	200
MTA-0016	1.6	1.6	0.8	0.25±0.05	200
MTA-0024	2.4	2.4	1.2	0.25±0.05	200
MTA-0032	3.2	3.2	1.6	0.25±0.05	200
MTA-0048	4.8	4.8	2.4	0.25±0.05	100
MTA-0064	6.4	6.4	3.2	0.30±0.08	100
MTA-0095	9.5	9.5	4.8	0.30±0.08	100
MTA-0127	12.7	12.7	6.4	0.30±0.08	100
MTA-0191	19.1	19.1	9.5	0.43±0.08	50
MTA-0254	25.4	25.4	12.7	0.48±0.10	50

應用 Applications

MTA熱縮套管是以符合USP Class VI醫療等級的聚偏二氟乙烯材料製成，適合應用在高溫環境的操作，對於化學物質如醇類有穩定的安定性能、機械性的磨損也有良好的表現，可以設計於要求平滑性、高絕緣性能的醫療器械絕緣保護。

MTA heat shrinkable tubing is made of the USP Class VI medical-grade polyvinylidene fluoride (PVDF) material. It is suitable for the operation in a high-temperature environment and has stable performance to chemical substances such as alcohol, as well as excellent mechanical abrasion resistance. It can be designed for the insulation protection of medical devices which require smoothness and high insulation performance.

操作溫度範圍 Operating temperature range

- Continuous operating temperature: -55°C~175°C
- Minimum shrink temperature: 155°C
- Full recovery temperature: Above 175°C

- 連續使用溫度：-55°C~175°C
- 最低收縮溫度：155°C
- 完全收縮溫度：175°C以上

特性 Characteristics

- 收縮率：2:1
- 耐磨、耐高溫
- 阻燃性能和耐化學腐蝕性能佳
- 良好的物理、化學和電子性能
- 優良的電氣絕緣性能
- 適合於伽瑪射線(γ)及環氧乙烷(ETO)滅菌作業
- 雙層塑袋、塑膠盤包裝
- 通過ISO 10993、RoHS認證

- Shrink ratio: 2:1
- Abrasion and high temperature resistance
- High flame retardant and excellent resistance performance to chemical corrosion
- Excellent physical, chemical and electrical performance
- Excellent electrical insulation properties
- Compatibility with gamma rays and ETO sterilization
- Double plastic bags and plastic spool package
- ISO 10993 and RoHS certificated

Approvals / Specifications 認證 / 規範

ISO 10993, RoHS



Technical Data

Property	Specification Requirement	Test Method	Typical Value
Longitudinal change	-10%~10%	ASTM D2671	Pass
Tensile strength	≥24.3MPa	ASTM D2671	≥30MPa
Elongation at break	≥200%	ASTM D2671	≥300%
Elongation at break after aging	≥100%	ASTM D2671 (250°C/168 hrs)	≥100%
Volume resistivity	≥10 ¹¹ Ω · cm	ASTM D2671	≥10 ¹³ Ω · cm
Dielectric voltage withstand	AC2500V/60S No breakdown	ASTM D2671	No breakdown
Heat shock	No cracking	ASTM D2671 (275°C/4 hrs)	No cracking
Low temperature flexibility	No cracking	ASTM D2671 (-55°C/4 hrs)	No cracking
Corrosion	No corrosion	ASTM D2671	Pass
Excellent electrical insulation properties			
No heavy metals contained			
Compatibility with gamma rays and ETO sterilization			

Standard colors: black and clear
Other colors, special sizes, and cut pieces are available on request.

標準顏色：黑色，透明
其他顏色，其他尺寸，裁切，可依客戶需求另行訂製

● ©

MEDICAL-GRADE HEAT SHRINKABLE TUBING

MT2

**Medical grade ultra thin wall
LDPE heat shrinkable tubing**
醫療級超薄型LDPE熱縮套管

Product Dimensions
產品規格

Part Number	As supplied (mm) 收縮前		After recovered (mm) 收縮後		Standard Length (Meter)
產品型號	I.D. (min) 內徑(最小)	W.T.壁厚	I.D. (min) 內徑(最大)	W.T.壁厚	標準長度(米)
MT2-0010	1.0	0.12±0.03	0.45	0.25±0.05	200
MT2-0020	2.0	0.12±0.03	0.80	0.25±0.05	200
MT2-0030	3.0	0.12±0.03	1.20	0.25±0.05	200
MT2-0045	4.4	0.12±0.05	1.90	0.25±0.05	100
MT2-0060	6.0	0.12±0.05	2.40	0.25±0.05	100
MT2-0100	10.0	0.12±0.08	4.00	0.35±0.05	100

Technical Data

Property	Specification Requirement	Test Method	Typical Value
Longitudinal change	-10%~10%	ASTM D2671	Pass
Concentricity	≥70%	ASTM D2671	≥70%
Tensile strength	≥10.3MPa	ASTM D2671	≥10.3MPa
Volume resistivity	≥10 ¹⁵ Ω · cm	ASTM D2671	≥10 ¹⁵ Ω · cm
Dielectric strength	≥39.37kV/mm	ASTM D2671	≥40kV/mm
Elongation at break	≥120%	ASTM D2671	≥140%
Heat shock	No cracking	ASTM D2671(180°C/4 hrs)	No cracking
Low temperature flexibility	No cracking	ASTM D2671(-55°C/4 hrs)	No cracking
No heavy metals contained			
Compatibility with gamma rays and ETO sterilization			

Standard colors : black and clear

Other colors, special sizes, and cut pieces are available on request.

標準顏色：黑色，透明

其他顏色，其他尺寸，裁切，可依客戶需求另行訂製

● ©

● 應用 Applications

以醫療等級聚烯烴製作的2.5:1收縮比醫療級熱縮套管，具滿足手術使用之侵入性器械所要求薄壁及平滑的特性需求，良好的電氣絕緣性能，可用於電外科器械的絕緣保護使用，是廣泛應用於醫療器械上的熱縮套管。

It is a 2.5:1 shrink ratio medical grade heat shrinkable tubing made of medical-grade polyolefin, and satisfies the demand of thin wall and smooth properties which invasive devices required for surgery. The excellent electrical insulation property makes it can be used in the insulation protection of electrosurgical instruments, it's the heat shrinkable tubing that widely used in medical devices.

● 操作溫度範圍 Operating temperature range

- Continuous operating temperature : -55°C~105°C
- Minimum shrink temperature : 60°C
- Full recovery temperature : Above 110°C

- 連續使用溫度：-55°C~105°C
- 最低收縮溫度：60°C
- 完全收縮溫度：110°C以上

● 特性 Characteristics

- 收縮率：2.5:1
- 低收縮溫度
- 透明度佳，柔軟
- 良好的物理、化學和電子性能
- 優良的電氣絕緣性能
- 適合於伽瑪射線(γ)及環氧乙烷(ETO)滅菌作業
- 雙層塑袋、塑膠盤包裝
- 通過ISO 10993、RoHS認證

- Shrink ratio : 2.5:1
- Low shrink temperature
- High transparency, very flexible
- Excellent physical, chemical and electrical performance
- Excellent electrical insulation properties
- Compatibility with gamma rays and ETO sterilization
- Double plastic bags and plastic spool package
- ISO 10993 and RoHS certificated

Approvals / Specifications 認證 / 規範

ISO 10993, RoHS

MEDICAL-GRADE HEAT SHRINKABLE TUBING



Medical grade flexible
PVDF heat shrinkable tubing
醫療級柔軟型PVDF熱縮套管



Product Dimensions
產品規格

應用 Applications

MTC具有柔軟、平滑及半透明性的特點，適合設計在高溫、耐磨損的醫療器械上的應用，符合USP Class VI醫療等級的聚偏二氟乙烯，對於化學物質如醇類有穩定的安定性能，很適合各類型醫療器械的絕緣保護使用。

MTC has the characteristics of softness, smoothness and translucency, and it's suitably designed for the application in medical devices which required high temperature and abrasion resistance. The polyvinylidene fluoride (PVDF) material complies with USP Class VI medical grade. It has stable performance to chemical substances such as alcohol, and is very suitable for the insulation protection of various types of medical devices.

操作溫度範圍 Operating temperature range

- Continuous operating temperature: -55°C~175°C
- Minimum shrink temperature: 125°C
- Full recovery temperature: Above 150°C

- 連續使用溫度：-55°C~175°C
- 最低收縮溫度：125°C
- 完全收縮溫度：150°C以上

特性 Characteristics

- 收縮率：2:1
- 耐磨、耐高溫
- 阻燃性能和耐化學腐蝕性能佳
- 良好的物理、化學和電子性能
- 優良的電氣絕緣性能
- 適合於伽瑪射線(γ)及環氧乙烷(ETO)滅菌作業
- 雙層塑袋、塑膠盤包裝
- 通過ISO 10993、RoHS認證

- Shrink ratio: 2:1
- Abrasion and high temperature resistance
- High flame retardant and excellent resistance performance to chemical corrosion
- Excellent physical, chemical and electrical performance
- Excellent electrical insulation properties
- Compatibility with gamma rays and ETO sterilization
- Double plastic bags and plastic spool package
- ISO 10993 and RoHS certificated

Approvals / Specifications 認證 / 規範

ISO 10993, RoHS

Part Number	Nominal size 公稱尺寸	As supplied (mm) 收縮前	After recovered (mm) 收縮後		Standard Length (Meter)
產品型號	mm	I.D.(min.) 內徑(最小)	I.D.(max) 內徑(最大)	W.T. 壁厚	標準長度(米)
MTC-0012	1.2	1.2	0.6	0.25±0.05	200
MTC-0016	1.6	1.6	0.8	0.25±0.05	200
MTC-0024	2.4	2.4	1.2	0.25±0.05	200
MTC-0032	3.2	3.2	1.6	0.25±0.05	200
MTC-0048	4.8	4.8	2.4	0.25±0.05	100
MTC-0064	6.4	6.4	3.2	0.30±0.08	100
MTC-0095	9.5	9.5	4.8	0.30±0.08	100
MTC-0127	12.7	12.7	6.4	0.30±0.08	100
MTC-0191	19.1	19.1	9.5	0.43±0.08	50
MTC-0254	25.4	25.4	12.7	0.48±0.10	50

Technical Data

Property	Specification Requirement	Test Method	Typical Value
Longitudinal change	-10%~10%	ASTM D2671	Pass
Tensile strength	≥17.3MPa	ASTM D2671	≥26MPa
Volume resistivity	≥10 ¹¹ Ω·cm	ASTM D2671	≥10 ¹¹ Ω·cm
Dielectric voltage withstand	AC2500V/60S No breakdown	ASTM D2671	No breakdown
Elongation at break	≥300%	ASTM D2671	≥300%
Heat shock	No cracking	ASTM D2671 (275°C/4 hrs)	No cracking
Low temperature flexibility	No cracking	ASTM D2671 (-55°C/4 hrs)	No cracking
Elongation at break after aging	≥100%	ASTM D2671 (225°C/168 hrs)	≥100%
Corrosion	No corrosion	ASTM D2671	Pass
Excellent electrical insulation properties			
No heavy metals contained			
Compatibility with gamma rays and ETO sterilization			

Standard colors: black and clear
Other colors, special sizes, and cut pieces are available on request.

標準顏色：黑色，透明
其他顏色，其他尺寸，裁切，可依客戶需求另行訂製



MEDICAL-GRADE HEAT SHRINKABLE TUBING



Medical grade
LDPE heat shrinkable tubing
醫療級LDPE熱縮套管



Product Dimensions
產品規格

應用 Applications

以醫療等級聚烯烴製作的2:1收縮比醫療級熱縮套管，相較於MT2醫療管，具更厚的壁厚值，可以滿足更嚴格的電氣絕緣要求及抗磨損的機械性能，經常被設計用於腹腔醫療器械的絕緣保護。

It is a 2:1 shrink ratio medical grade heat shrinkable tubing made of medical-grade polyolefin. Compared with MT2 medical tubing, it has thicker wall thickness, and can satisfy the stricter requirement of electrical insulation and the mechanical property of abrasion resistance. It is usually designed for the insulation protection of abdominal medical devices.

操作溫度範圍 Operating temperature range

- Continuous operating temperature: -55°C~105°C
- Minimum shrink temperature: 60°C
- Full recovery temperature: Above 110°C

- 連續使用溫度：-55°C~105°C
- 最低收縮溫度：60°C
- 完全收縮溫度：110°C以上

特性 Characteristics

- 收縮率：2:1
- 低收縮溫度
- 透明度佳，柔軟
- 良好的物理、化學和電子性能
- 優良的電氣絕緣性能
- 適合於伽瑪射線(γ)及環氧乙烷(ETO)滅菌作業
- 雙層塑袋、塑膠盤包裝
- 通過ISO 10993、RoHS認證

- Shrink ratio: 2:1
- Low shrink temperature
- High transparency, very flexible
- Excellent physical, chemical and electrical performance
- Excellent electrical insulation properties
- Compatibility with gamma rays and ETO sterilization
- Double plastic bags and plastic spool package
- ISO 10993 and RoHS certificated

Approvals / Specifications 認證 / 規範

ISO 10993, RoHS

Technical Data

Property	Specification Requirement	Test Method	Typical Value
Longitudinal change	-10%~10%	ASTM D2671	Pass
Concentricity	≥70%	ASTM D2671	≥70%
Tensile strength	≥10.3Mpa	ASTM D2671	≥10.3Mpa
Volume resistivity	≥10 ¹⁵ Ω·cm	ASTM D2671	≥10 ¹⁵ Ω·cm
Dielectric strength	≥39.37kV/mm	ASTM D2671	≥40kV/mm
Elongation at break	≥120%	ASTM D2671	≥140%
Heat shock	No cracking	ASTM D2671 (180°C/4 hrs)	No cracking
Low temperature flexibility	No cracking	ASTM D2671 (-55°C/4 hrs)	No cracking
Excellent electrical insulation properties			
No heavy metals contained			
Compatibility with gamma rays and ETO sterilization			

Standard colors: black and clear
Other colors, special sizes, and cut pieces are available on request.

標準顏色：黑色，透明
其他顏色，其他尺寸，裁切，可依客戶需求另行訂製



MEDICAL-GRADE HEAT SHRINKABLE TUBING



**Medical grade high flexibility
heat shrinkable tubing**
醫療級高柔軟性熱縮套管



Product Dimensions
產品規格

● 應用 Applications

MTF提供了非常柔軟的性能，設計用於需要靈活、彎曲性能醫療器械的絕緣保護，低溫收縮的特性，能減輕對溫度敏感物件的損傷。

MTF provides very flexible performance. It is designed for the insulation protection of medical devices that require flexibility and bendability. The low-temperature shrinkage property can reduce the damage to temperature-sensitive objects.

● 操作溫度範圍 Operating temperature range

- Continuous operating temperature: -55°C~105°C
- Minimum shrink temperature: 60°C
- Full recovery temperature: Above 110°C

- 連續使用溫度：-55°C~105°C
- 最低收縮溫度：60°C
- 完全收縮溫度：110°C以上

● 特性 Characteristics

- 收縮率：2:1
- 低收縮溫度
- 非常柔軟
- 良好的物理、化學和電子性能
- 優良的電氣絕緣性能
- 適合於伽瑪射線(γ)及環氧乙烷(ETO)滅菌作業
- 雙層塑袋、塑膠盤包裝
- 通過ISO 10993、RoHS認證
- Shrink ratio: 2:1
- Low shrink temperature
- Very flexible
- Excellent physical, chemical and electrical performance
- Excellent electrical insulation properties
- Compatibility with gamma rays and ETO sterilization
- Double plastic bags and plastic spool package
- ISO 10993 and RoHS certificated

Approvals / Specifications 認證 / 規範

ISO 10993, RoHS

Part Number	As supplied (mm) 收縮前		After recovered (mm) 收縮後		Standard Length (Meter)
產品型號	I.D.(min.) 內徑(最小)	W.T. 壁厚	I.D.(max) 內徑(最大)	W.T. 壁厚	標準長度(米)
MTF-0012	1.2	0.20±0.05	0.6	0.43±0.08	200
MTF-0016	1.6	0.20±0.05	0.8	0.43±0.08	200
MTF-0024	2.4	0.25±0.05	1.2	0.51±0.08	200
MTF-0032	3.2	0.25±0.05	1.6	0.51±0.08	200
MTF-0048	4.8	0.25±0.05	2.4	0.51±0.08	100
MTF-0064	6.4	0.30±0.05	3.2	0.64±0.08	100
MTF-0095	9.5	0.30±0.05	4.8	0.64±0.08	100
MTF-0127	12.7	0.30±0.05	6.4	0.64±0.08	100
MTF-0191	19.1	0.35±0.05	9.5	0.76±0.08	50

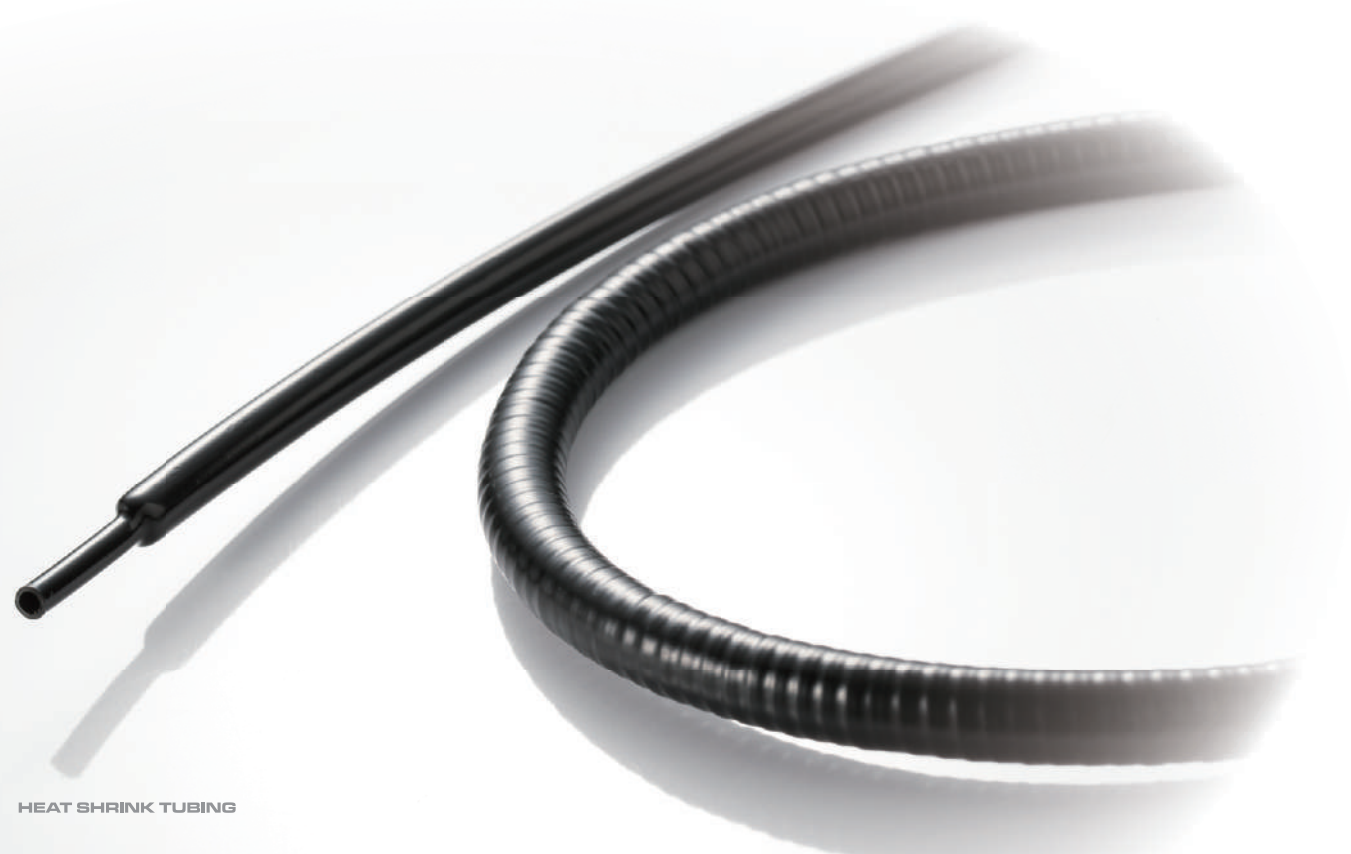
Technical Data

Property	Specification Requirement	Test Method	Typical Value
Longitudinal change	-10%~10%	ASTM D2671	Pass
Concentricity	≥70%	ASTM D2671	≥70%
Tensile strength	≥10.3Mpa	ASTM D2671	≥10.3Mpa
Volume resistivity	≥10 ¹⁵ Ω · cm	ASTM D2671	≥10 ¹⁵ Ω · cm
Dielectric strength	≥19.7kV/mm	ASTM D2671	≥20kV/mm
Elongation at break	≥120%	ASTM D2671	≥140%
Low temperature flexibility	No cracking	ASTM D2671 (-55°C/4 hrs)	No cracking
Excellent electrical insulation properties			
No heavy metals contained			
Compatibility with gamma rays and ETO sterilization			

Standard colors: black and clear
Other colors, special sizes, and cut pieces are available on request.

標準顏色：黑色，透明
其他顏色，其他尺寸，裁切，可依客戶需求另行訂製

● ©



Cross Reference Number For G-APEX Heat Shrinkable Tubing

	Raychem	SUMITUBE	DSG-Canusa	LG	3M	Alpha
G1	CGPE-105	C	CPX 51	GSHS-1605		
G5	VERSAFIT V2	F32. F2Z	CPX 876	GSHS-1625	CP-221	FIT221V
G5-CB	VERSAFIT V4	F34. F4Z	DERAY ITW	GSHS-1625T		
GA		A				
G5-135	RNF-100	A2. B2	CPX-100	GSHS-1635F	FP-301	FIT221
G5-YG	DCPT 2:1	B2(YG)	CPX 201	GSHS-1635F-YG	GYS	FIT260
G5135-3X	RNF-3000	B2(3X)	CPX 300	GSHS-3635	SFTW-203	FIT321V
AIS	ATUM. DWP-125	W3B2. W3F2	CPA 300	GSHS-3635W	EPS-300	FIT321
AIS-ES	ES-2000	SA2F	SPLICEMELT125	GSHS-4635WS	EPS-4000	FIT421
ACS200	RBK-ILS125					
ATM	MWTM. SST-M	SCD. SCM2	CFM	PMWT	MDT. IMCSN	
ASM-6X	HRHT	SCH	CFHR			FIT621
ANF		IRRAX SCM2			IMCS	
ASM	WCSM.SST		CFW/RHW	PHWT	ITCSN	FIT700
ABS		W3D		GSHS-1625BS		
DR	DR-25	R120	DERAY V25	DRET	PSTH	FIT601
HTK150	RT-375	K2	KYF190	GSHS-1650F	MFP	
KYNAR	RW-175. KYNAR	K	KY175	GSHS-1675	KYNAR	FIT350
VITON	VITON. RW200	FE3. KH200	VT220		VTN200	FIT650
FEP	FEP	FEP			FEP	FIT400
PTFE	TFE	TFE	CTFE250		TFE	FIT500
MTA	MT1000					
MT2/MTE	MT2000					
MTC	MT3000					
MTF	MT-5000/MT5500					
TMS	TMS-SCE					FIT-PRINT
CTMS	TTMS					
HB1	LVIT			LG-BBLV		
HB2	BPTM	SBI300	CBTM	LG-BBHV	BBI	
HB3	BBIT	SBI350	CBTH	LG-BBHT	BBI	
AEC	SSC. ESC		CCAP		ICEC. SKE	FITCAP
AECM	ES CAPS	SA3 CAP	SPLICEMELT CAP 125			
BOOT	Molded parts					BOOTS

Cross Reference Number For G-APEX Heat Shrinkable Tubing

[illegible]

METRIC/INCH CONVERSION CHART

Inches英寸	mm公釐	Inches英寸	mm公釐
1/64	0.40	1/2	12.70
1/32	0.79	33/64	13.10
3/64	1.19	17/32	13.49
1/16	1.59	35/64	13.89
5/64	1.98	9/16	14.29
3/32	2.38	37/64	14.68
7/64	2.78	19/32	15.08
1/8	3.18	39/64	15.48
9/64	3.57	5/8	15.88
5/32	3.97	41/64	16.27
11/64	4.37	21/32	16.67
3/16	4.76	11/16	17.46
13/64	5.16	23/32	18.26
7/32	5.56	3/4	19.05
15/64	5.95	25/32	19.84
1/4	6.35	13/16	20.64
17/64	6.75	7/8	22.23
9/32	7.14	29/32	23.02
19/64	7.54	15/16	23.81
5/16	7.94	61/64	24.21
21/64	8.33	31/32	24.61
11/32	8.73	63/64	25.00
23/64	9.13	1	25.40
3/8	9.53	1-1/4	32.00
25/64	9.92	1-1/2	38.10
13/32	10.32	1-3/4	44.50
27/64	10.72	2	50.80
7/16	11.11	2-1/2	63.50
29/64	11.51	3	76.20
15/32	11.91	3-1/2	88.90
31/64	12.30	4	101.60

Notes