



Wire and Cable

Heat-shrink Tubing

Non-shrink Tubing

Braided Sleeving

Screening Braids

Moulded Parts

Terminals and Splices

Wire and Cable Markers

Accessories

Connectors

Backshells

Bonding Leads

Metal Braids

Relays and Contactors

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Adhesives and Tapes

Application Equipment

Added Value Services

INTRODUCTION

Heat Shrinkable Solutions

Comprehensive Range of Heat Shrinkable Tubing

Heat-shrinkable tubing is available in an extensive range of sizes, colours and materials, including Polyolefins, Fluoropolymers, Elastomers and Silicone, many of which are radiation cross-linked to enhance their performance properties. Shrink ratios from 2:1 to 4:1 enable ease of installation, allowing the tubing to be utilised in all environments, from component protection through to rugged high performance electrical systems and field cable repairs. Temperature capabilities range from -75°C to +260°C.

Performance characteristics include chemical and fluid resistance, environmental and vibration protection, abrasion resistance and excellent electrical performance. Heat-shrinkable tubing is also a simple and effective way of improving a products aesthetic appearance.

Typical Features & Benefits

- Mechanical protection
- Chemical/fluid resistance
- Electrical insulation
- Moisture protection
- Strain relief, Flexibility
- Flame-retardant, Low smoke
- High shrink ratio
- Low shrink temperature
- Aesthetic enhancement
- Fast and efficient installation
- Pre-installed adhesives bond to a wide variety of plastics, rubbers and metals.



Cut Piece Service

Many of our tubing products can be supplied pre-cut to length. Please contact our sales office for details.



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Heat-Shrink Tubing

Selection Guide

Heat Shrinkable
All tubing RoHS compliant

Material	Product	Highly Flexible	Flexible	Semi Rigid	Operating Temperature	Size Range	1.2m Lengths	Spools	Flat Spools	Min. Shrink Ratio
Single Wall										
Polyolefin	CGPT		●		-40°C to +135°C	1.2mm - 102.0mm		●		2:1
Polyolefin	CRN			●	-55°C to +135°C	1.2mm - 19.0mm	●			2:1
Polyolefin	DCPT		●		-55°C to +135°C	3.0mm - 51.0mm		●		2:1
Polyolefin	LSTT		●		-40°C to +125°C	1.6mm - 38.0mm		●		2:1
Polyolefin	RNF-100		●		-55°C to +135°C	1.2mm - 102.0mm	●	●	●	2:1
Polyolefin	RNF-3000		●		-55°C to +135°C	1.5mm - 39.0mm	●	●		3:1
Polyolefin	RP-4800		●		-55°C to +135°C	25.4mm - 102.0mm	●	●		4:1
Polyolefin	VERSAFIT	●			-55°C to +135°C	1.6mm - 104.2mm		●	●	2:1
Elastomer	DR-25		●		-75°C to +150°C	3.2mm - 76.0mm		●		2:1
Elastomer	DR-25-TW	●			-75°C to +150°C	2.4mm - 38.0mm		●		2:1
Fluoroelastomer	RW-200-E		●		-55°C to +200°C	3.2mm - 51.0mm		●		2:1
Silicone	SRFR	●			-75°C to +200°C	2.9mm - 51.0mm		●		1.5:1
Fluoropolymer	RT-375		●		-55°C to +150°C	1.2mm - 25.4mm		●		2:1
Fluoropolymer	RT-555			●	-65°C to +200°C	3.2mm - 50.8mm		●		2:1
Fluoropolymer	RW-175-E			●	-55°C to +175°C	1.2mm - 38.1mm	●	●		2:1
Fluoropolymer	TFE			●	-67°C to +250°C	0.8mm - 11.9mm	●			1.8:1
Fluoropolymer	TFER			●	-67°C to +250°C	2.0mm - 32.0mm	●			3.2:1
Polyolefin/Polyester	HFT5000	●			-40°C to +125°C	12.0mm - 70.0mm		●	●	2:1
Polyolefin	ZH-150		●		-75°C to +150°C	3.0mm - 50.0mm		●		2:1
Polyolefin	ZHT		●		-30°C to +125°C	1.2mm - 80.0mm		●		2:1
Polyolefin	ZHTM		●		-30°C to +105°C	3.0mm - 50.0mm		●		2:1
Dual Wall / Adhesive lined										
Polyolefin	ATUM		●		-55°C to +110°C	3.0mm - 52.0mm	●	●		3:1
Polyolefin	CGAT		●		-30°C to +80°C	3.0mm - 39.0mm	●	●		3:1
Fluoropolymer	D-150			●	-65°C to +150°C	1.1mm - 2.8mm				n/a
Fluoropolymer	D-260			●	-65°C to +260°C	5.16mm - 16.26mm				n/a
Polyolefin	HTAT		●		-55°C to +125°C	4.0mm - 48.0mm	●	●		4:1
Polyolefin	SCL			●	-55°C to +110°C	3.2mm - 25.4mm	●			3:1
Polyolefin	SCT			●	-40°C to +150°C	7.6mm - 17.8mm	●			4:1

Selection Guide

Heat Shrinkable
All tubing RoHS compliant

Min. Shrink Temperature	Black	Clear/Natural	Colours	Comment	Flame Retardant	Halogen Free	UL Approved	CSA	VW-1 (UL/CSA)	Military Specs	FMVSS 302	BR 1326A
Single Wall												
+80°C	●	●	●	General purpose (clear not FR)	●		●	●				
+110°C	●	●		General purpose, semi-rigid	●		●	●		●		
+95°C			●	Dual colour, earth identifier - Green/Yellow	●		●	●				
+65°C	●	●	●	Low shrink temperature for fast recovery							●	
+95°C	●	●	●	High performance and flexible (clear MIL only)	●		●	●		●		
+80°C	●	●	●	Higher shrink ratio (clear not FR)	●		●	●		●		
+95°C	●		●	4:1 shrink ratio tubing (black approved only)	●		●			●		
+70°C	●		●	Highly flame retardant, multi-spec. Low shrink temp.	●		●		●	●		
+150°C	●			Diesel and hydraulic fluid resistant tubing	●					●		
+125°C	●			Thin wall, diesel resistant tubing	●				●	●		
+100°C	●			High temperature, chemical resistant tubing	●					●		
+135°C			●	Very flexible in range of temp, with ablative properties	●		●		●			
+125°C		●		Clear high performance tubing	●		●	●	●	●		
+150°C	●			Fluid and chemical resistant tubing, low outgassing	●		●		●			
+155°C		●		High temperature, thin wall, chemical resistant tubing	●		●		●	●		
+330°C		●		High temperature, chemically inert tubing PTFE	●					●		
+340°C		●		High temperature, chemically inert tubing PTFE	●					●		
+80°C	●			Woven heat shrinkable tubing		●	●				●	
+150°C	●			Zero halogen, LFH tubing	●	●						
+120°C	●		●	Zero halogen, coloured LFH tubing (BR 1326A version)	●	●	●					●
+80°C	●			Zero halogen, medium-wall LFH tubing	●	●				●		●
Dual Wall / Adhesive Lined												
+80°C	●			Adhesive lined performance tubing	●		●			●	●	
+80°C	●	●		Adhesive lined tubing	●		●					
-			●	C-Wrap repair sleeve								
-	●			Wraparound side entry repair	●							
+80°C	●			High temperature adhesive lined tubing	●							
+125°C	●		●	Encapsulant lined tubing			●			●		
+110°C	●			High temperature, adhesive lined tubing	●							

Heat-Shrink Tubing

CGPT

Polyolefin

Commercial grade, flexible tubing

2:1
shrink

RoHS
compliant

A tough and flexible general purpose polyolefin tubing, providing a good blend of chemical, electrical and physical performance properties. Suitable for electrical insulation, strain relief, cable bundling, colour coding, identification of wires, cables and electronic components.

Features & Benefits

- Very good chemical & solvent resistance
- Excellent physical & electrical properties
- Wide range of sizes and colours available

Operating Temperature

- From -40°C to +135°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +120°C

Specifications & Approvals

- UL E35586. 600v, 125°C
- CSA LR 31929, 600v, 125°C

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools Only	
1.2	0.6	0.45 mm	600m	CGPT-1.2/0.6-Colour-SP
1.6	0.8	0.45 mm	600m	CGPT-1.6/0.8-Colour-SP
2.4	1.2	0.50 mm	300m	CGPT-2.4/1.2-Colour-SP
3.2	1.6	0.50 mm	300m	CGPT-3.2/1.6-Colour-SP
4.8	2.4	0.50 mm	300m	CGPT-4.8/2.4-Colour-SP
6.4	3.2	0.65 mm	150m	CGPT-6.4/3.2-Colour-SP
9.5	4.8	0.65 mm	150m	CGPT-9.5/4.8-Colour-SP
12.7	6.4	0.65 mm	150m	CGPT-12.7/6.4-Colour-SP
19.0	9.5	0.75 mm	150m	CGPT-19/9.5-Colour-SP
25.4	12.7	0.90 mm	60m	CGPT-25.4/12.7-Colour-SP
38.0	19.0	1.00 mm	60m	CGPT-38/19-Colour-SP
51.0	25.4	1.15 mm	30m	CGPT-51/25.4-Colour-SP
76.0	38.0	1.25 mm	15m	CGPT-76/38-Colour-SP
102.0	51.0	1.40 mm	15m	CGPT-102/51-Colour-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage. Clear is not flame retardant

Colours Available

							
0	2	4	5	6	9	X	45*
Black	Red	Yellow	Green	Blue	White	Clear	Grn/Ylw

* Green/Yellow tubing is available in a range of sizes 3.2/1.6 thru to 38/19 incl. ONLY

3:1
shrink

RoHS
compliant

A tough and flexible general purpose polyolefin tubing, providing a good blend of chemical, electrical and physical performance properties. Suitable for electrical insulation, strain relief, cable bundling, colour coding, identification of wires, cables and electronic components.

Features & Benefits

- Very good chemical & solvent resistance
- Excellent physical & electrical properties
- Wide range of sizes and colours available

Operating Temperature

- From -40°C to +135°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +120°C

Specifications & Approvals

- UL E35586. 600v, 125°C
- CSA LR 31929, 600v, 125°C

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools Only	
1.5	0.5	0.45 mm	600m	CGPT-1.5/0.5-Colour-SP
3.0	1.0	0.55 mm	300m	CGPT-3/1-Colour-SP
6.0	2.0	0.65 mm	150m	CGPT-6/2-Colour-SP
9.0	3.0	0.75 mm	150m	CGPT-9/3-Colour-SP
12.0	4.0	0.75 mm	150m	CGPT-12/4-Colour-SP
18.0	6.0	0.85 mm	150m	CGPT-18/6-Colour-SP
24.0	8.0	1.00 mm	60m	CGPT-24/8-Colour-SP
39.0	13.0	1.15 mm	60m	CGPT-39/13-Colour-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.
Clear is not flame retardant

Colours Available



0 2 4 5 6 9 X
Black Red Yellow Green Blue White Clear#

Denotes: Non flame retardant.

Heat-Shrink Tubing

CRN

Polyolefin
Semi-rigid, flame retardant tubing

CRN tubing is ideally suited for strain relief and insulation of potential weak points such as wire splices, crimps and terminations. The flame-retardant material exhibits excellent mechanical and chemical properties. It meets major military and industrial specifications for an all purpose, semi-rigid tubing.

Features & Benefits

- Tough, semi-rigid wire protection
- Flame retardant

Operating Temperature

- From -55°C to +135°C

Installation

- Minimum shrink temperature +110°C
- Minimum full recovery +135°C

2:1
shrink

RoHS
compliant



Specifications & Approvals

- AMS-DTL-23053/6 class 1 (Clear class 2)
- UL E35586, 600v, 125°C
- CSA LR31929, 600v, 125°C (black only)

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	1.2m Lengths only	
1.2	0.6	0.51 mm	60	CRN-3/64-0-STK
1.6	0.8	0.51 mm	60	CRN-1/16-0-STK
2.4	1.2	0.51 mm	60	CRN-3/32-0-STK
3.2	1.6	0.51 mm	60	CRN-1/8-0-STK
4.8	2.4	0.64 mm	60	CRN-3/16-0-STK
6.4	3.2	0.64 mm	30	CRN-1/4-0-STK
9.5	4.8	0.76 mm	30	CRN-3/8-0-STK
12.7	6.4	0.76 mm	30	CRN1/2-0-STK
19.0	9.5	0.89 mm	30	CRN3/4-0-STK

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available



0 = Black

X = Clear^s

^s Denotes: Made to special order only, non flame retardant.

2:1
shrink

3:1
shrink



A tough and flexible general purpose polyolefin tubing, providing a good blend of chemical, electrical and physical performance properties. Suitable for electrical insulation, strain relief, cable bundling, colour coding, identification of wires, cables and other electronic components.

Features & Benefits

- Very good chemical & solvent resistance
- Excellent physical & electrical properties
- Wide range of sizes available

Operating Temperature

- From -55°C to +135°C

Installation

- Minimum shrink temperature +95°C
- Minimum full recovery +120°C

Specifications & Approvals

- UL E35586, 600v, 125°C
- CSA LR31929, 600v, 125°C
- VG 95343 Part 5 Type A

	Inside Diameter		Wall Thickness	Pack Size	Part Number
	Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools Only	
2:1 Shrink Ratio	3.0	1.5	0.51 mm	300m	DCPT 3/1.5-45-SP
	6.0	3.0	0.58 mm	150m	DCPT 6/3-45-SP
	8.0	4.0	0.64 mm	150m	DCPT 8/4-45-SP
	10.0	5.0	0.64 mm	150m	DCPT 10/5-45-SP
	12.0	6.0	0.64 mm	150m	DCPT 12/6-45-SP
	19.0	9.0	0.76 mm	150m	DCPT 19/9-45-SP
	26.0	13.0	0.89 mm	60m	DCPT 26/13-45-SP
	38.0	19.0	1.00 mm	60m	DCPT 38/19-45-SP
	51.0	19.0	1.02 mm	60m	DCPT 51/19-45-SP
3:1 Shrink Ratio	3.0	1.0	0.55 mm	300m	DCPT 3/1-45-SP
	6.0	2.0	0.65 mm	150m	DCPT 6/2-45-SP
	9.0	3.0	0.75 mm	150m	DCPT 9/3-45-SP
	12.0	4.0	0.75 mm	150m	DCPT 12/4-45-SP
	18.0	6.0	0.85 mm	150m	DCPT 18/6-45-SP
	24.0	8.0	1.00 mm	60m	DCPT 24/8-45-SP
	39.0	13.0	1.15 mm	60m	DCPT 39/13-45-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available



45 = Grn/Ylw

Heat-Shrink Tubing

DR-25

Elastomer

Flexible, abrasion & diesel resistant

2:1
shrink

DR-25 is made from radiation cross-linked elastomeric material, for long term heat resistance. Ideally suited for high performance wiring harnesses. Used in a wide range of military, aerospace and other harsh environment applications.

Features & Benefits

- Excellent chemical & solvent resistance
- Excellent abrasion/mechanical protection
- Compatible with 'System 25' components

Operating Temperature

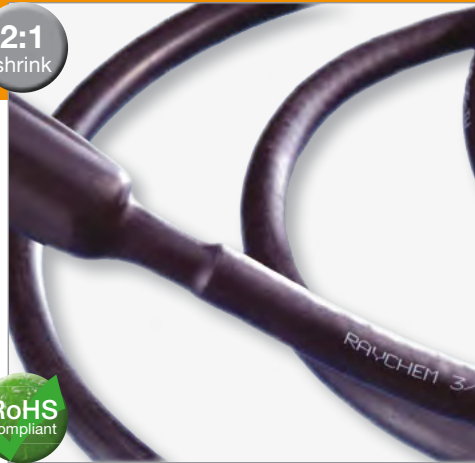
- From -75°C to +150°C

Installation

- Minimum shrink temperature +150°C
- Minimum full recovery +175°C

Specifications & Approvals

- AMS-DTL-23053/16
- BS 4G-198 Part 3 10A
- VG 95343 Part 5 Type D
- VDE-0341 Part 9005



Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools Only	
3.2	1.6	0.76 mm	100m	DR-25-1/8-0-SP
4.8	2.4	0.84 mm	100m	DR-25-3/16-0-SP
6.4	3.2	0.89 mm	100m	DR-25-1/4-0-SP
9.5	4.8	1.02 mm	100m	DR-25-3/8-0-SP
12.7	6.4	1.22 mm	60m	DR-25-1/2-0-SP
19.0	9.5	1.45 mm	60m	DR-25-3/4-0-SP
25.4	12.7	1.78 mm	30m	DR-25-1-0-SP
38.0	19.0	2.41 mm	15m	DR-25-1-1/2-0-SP
51.0	25.4	2.79 mm	15m	DR-25-2-0-SP
76.0	38.0	3.18 mm	15m	DR-25-3-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.

DR25 is also available as a repair tape, e.g. **T-DR-25-NR1-0**. For more information please contact us. For supply to BS 4G-198 or AMS-DTL23053 add **-BS** or **-MS** suffix to part No respectively.

Colours Available



0 = Black

DR-25-TW

Elastomer

Flexible, abrasion & diesel resistant

2:1
shrink

DR-25-TW is a 'Thin-Wall' version of DR-25 offering similar properties and is ideal for use where space and weight saving are important.

Features & Benefits

- Excellent chemical & solvent resistance
- Excellent abrasion/mechanical protection
- Compatible with 'System 25' components
- Lightweight, thin wall

Operating Temperature

- From -75°C to +150°C

Installation

- Minimum shrink temperature +125°C
- Minimum full recovery +175°C

Specifications & Approvals

- VG-95343 Part 5 Type D
- VDE-0341 Part 9005
- RK 6008/2

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools Only	
2.4	1.2	0.51 mm	150m	DR-25-TW-3/32-0-SP
3.2	1.6	0.51 mm	150m	DR-25-TW-1/8-0-SP
4.8	2.4	0.51 mm	150m	DR-25-TW-3/16-0-SP
6.4	3.2	0.64 mm	75m	DR-25-TW-1/4-0-SP
9.5	4.8	0.64 mm	75m	DR-25-TW-3/8-0-SP
12.7	6.4	0.64 mm	75m	DR-25-TW-1/2-0-SP
19.0	9.5	0.76 mm	75m	DR-25-TW-3/4-0-SP
25.4	12.7	0.89 mm	30m	DR-25-TW-1-0-SP
31.5	15.0	1.10 mm	30m	DR-25-TW-1-1/4-0-SP
38.0	19.0	1.02 mm	30m	DR-25-TW-1-1/2-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available



0 = Black

Heat-Shrink Tubing

HFT5000

Polyolefin/Polyester construction
Heat-shrinkable fabric tubing

HFT5000 is made from a very flexible heat-shrinkable fabric and shrinks to fit securely around a range of shapes and sizes. Designed to provide mechanical abrasion protection, noise and rattle suppression, for components such as rubber hoses, plastic pipes and harness wiring bundles.

Extremely flexible and resistant to trapping water, heat and humidity. It also provides outstanding abrasion, chafing and cutting protection, even at high temperatures.

Operating Temperature

- From -40°C to +125°C (3000 hours)

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +110°C

2:1
shrink

HALOGEN
FREE

RoHS
compliant

Specifications & Approvals

- UL E199379 135°C
- FMVSS 302

Inside Diameter		Std Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Spools (SP)	
12.0	6.0	500m	HFT5000-12/6-0-SP
20.0	10.0	400m	HFT5000-20/10-0-SP
30.0	15.0	400m	HFT5000-30/15-0-SP
40.0	20.0	300m	HFT5000-40/20-0-SP
50.0	25.0	200m	HFT5000-50/25-0-SP
60.0	30.0	200m	HFT5000-60/30-0-SP
70.0	35.0	150m	HFT5000-70/35-0-SP

The fully recovered wall thickness will be approximately 1mm and longitudinal shrinkage on full recovery is nominally between 10% and 20%.

Properties	Test	Results
Abrasion resistance	+23°C, +80°C, +135°C	No wear to underlying rubber hose
(200g load, 0.3mm radius metal blade, 10Hz, 10mm stroke, 144 000 cycles)		
Thermal aging	3000 hrs at +125°C	No deterioration at +80°C
Flammability	MVSS302	Pass
Low temperature flexibility	4 hrs at -40°C and +125°C	No cracking
Cold impact	100mm at -40°C	No cracking
Thermal shock	-40°C and +125°C	No deterioration at +80°C
Fluid resistance:	24hrs immersion at +23°C	No deterioration in abrasion resistance

LSTT

Polyolefin

Low shrink temperature, flexible

2:1
shrink



RoHS
compliant

LSTT is a highly flexible, easy to handle and install low shrink temperature heat-shrinkable tubing. Ideal for covering heat sensitive devices and termination insulation. Meets automotive flame propagation standard MVSS 302.

Features & Benefits

- Rapid recovery at low temperatures
- Good physical & electrical performance
- Not flame retardant

Operating Temperature

- From -40°C to +125°C

Installation

- Minimum shrink temperature +65°C
- Minimum full recovery +110°C

Specifications & Approvals

- FMVSS 302
- RW-2051

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
1.6	0.8	0.50 mm	600m	LSTT-1.6-Colour-SP
2.4	1.2	0.55 mm	300m	LSTT-2.4-Colour-SP
3.2	1.6	0.55 mm	300m	LSTT-3.2-Colour-SP
4.8	2.4	0.55 mm	300m	LSTT-4.8-Colour-SP
6.4	3.2	0.65 mm	150m	LSTT-6.4-Colour-SP
9.5	4.8	0.65 mm	150m	LSTT-9.5-Colour-SP
12.7	6.4	0.65 mm	150m	LSTT-12.7-Colour-SP
19.0	9.5	0.80 mm	150m	LSTT-19.0-Colour-SP
25.4	12.7	0.95 mm	60m	LSTT-25.4-Colour-SP
38.0	19.0	1.05 mm	60m	LSTT-38.0-Colour-SP
52.0	26.0	1.14 mm	60m	LSTT-52.0-0-SP*

Wall thickness will be less if tubing recovery is restricted during shrinkage.

*LSTT-52 is only available in black.

Colours Available



0 2 4 5 6 9 X
Black Red^{NS} Yellow^{NS} Green^{NS} Blue^{NS} White^{NS} Clear^{NS}

^{NS} Denotes Non-Standard colours, may be subject to MOQs.

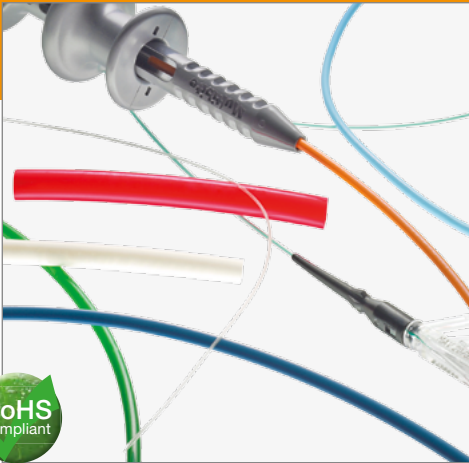
Heat-Shrink Tubing

MT Series

Medical Grade Tubing
Single and Dual Wall

Provides protective insulation for a wide range of medical grade applications, this heat shrink tubing provides a versatile solution for process aids, bonding joints, chemical resistance and electro-mechanical protection for critical medical components.

- Unique formulations for broad range of medical applications.
- Robust and chemical resistant.
- Stable, maintains integrity in high temperature conditions.
- Compliant to RoHS and USP class VI bio-compatibility.
- Select products registered with FDA through master file system (MAF).
- Manufactured to ISO 10993 standards.



There is an extensive range of products available in various sizes, from a max of 12.7mm Ø to a min of 0.6mm Ø over 9 sizes and a selection of colours, please contact us for additional information.

Base Polymer	Product Family	Design Market	Shrink Temp.	Sterilisation				
				Auto-clave	Gamma	EtO	Steam	Dry Heat
PVDF	MT1000	Surgical	175°C	•	•	•	•	•
HDPE	MT2000	Surgical	140°C		•	•		
PVDF	MT3000	Surgical	150°C	•	•	•		•
LDPE	MT5000	Surgical	110°C		•	•		
EMA	MT5500	Surgical	110°C		•	•		
FEP	MT-FEP	Surgical	210°C	•		•	•	•
LDPE	MT-LWA	Interventional	110°C	n/a	n/a	n/a	n/a	n/a

A Wide Range of Medical Applications

Products to suit different material requirements and almost any design situation. Here are just a few examples of the type, capabilities of the MT series of heat shrink products.

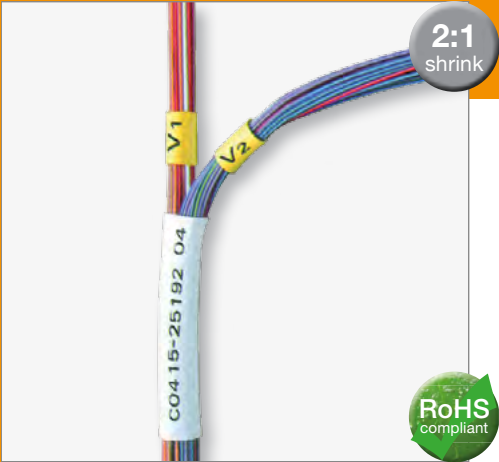
- Abrasion Protection for Medical Instruments - MT1000 and MT3000
- Balloon and Stent Process Aid - MT-LWA
- Laparoscopic-Electrosurgical Device Insulation - MT2000 and MT5000
- Protection and Insulation of Highly Flexible Joints - MT5500 and MT3000



RNF-100

Polyolefin

Flexible, flame retardant



Designed to provide superior mechanical (abrasion, cut-through, strain relief), thermal and fluid resistance performance. Used extensively in military applications for lightweight harness jackets, insulation, identification, colour coding and protection.

Features & Benefits

- Excellent physical, chemical properties
- Superior abrasion and solvent resistance
- Flexible; conforms to irregular shapes

Operating Temperature

- From -55°C to +135°C

Installation

- Minimum shrink temperature +95°C
- Minimum full recovery +121°C

Specifications & Approvals

- AMS-DTL23053/5 class 1 (colours)
- VDE 0341 Part 9005, Type A, B (colours)
- BS 4G 198-3 Type 11B
- UL E35586, 600v, 125°C

Inside Diameter		Wall Thickness	Pack Size		Part Number
Supplied	Recovered	Nom. Recovered	1.2m Sticks	Spools	
1.2 mm	0.6 mm	0.40 mm	60m	600m	RNF-100-3/64-Colour-xx
1.6 mm	0.8 mm	0.43 mm	60m	600m	RNF-100-1/16-Colour-xx
2.4 mm	1.2 mm	0.51 mm	60m	300m	RNF-100-3/32-Colour-xx
3.2 mm	1.6 mm	0.51 mm	60m	300m	RNF-100-1/8-Colour-xx
4.8 mm	2.4 mm	0.51 mm	60m	300m	RNF-100-3/16-Colour-xx
6.4 mm	3.2 mm	0.64 mm	30m	150m	RNF-100-1/4-Colour-xx
9.5 mm	4.8 mm	0.64 mm	30m	150m	RNF-100-3/8-Colour-xx
12.7 mm	6.4 mm	0.64 mm	30m	150m	RNF-100-1/2-Colour-xx
19.1 mm	9.5 mm	0.76 mm	30m	150m	RNF-100-3/4-Colour-xx
25.4 mm	12.7 mm	0.89 mm	30m	60m	RNF-100-1-Colour-xx
38.1 mm	19.1 mm	1.02 mm	12m	60m	RNF-100-1-1/2-Colour-xx
50.8 mm	25.4 mm	1.14 mm	12m	30m	RNF-100-2-Colour-xx
76.2 mm	38.1 mm	1.27 mm	6m	15m	RNF-100-3-Colour-xx
101.6 mm	50.8 mm	1.40 mm	6m	15m	RNF-100-4-Colour-xx

For supply to BS 4G-198 or AMS-DTL23053 add -BS or -MS suffix to part number respectively.

Wall thickness will be less if recovery is restricted.

Where xx is either STK (sticks) or SP (spools).

Denotes: Non flame retardant.

NS Denotes Non-Standard colours, subject to MOQs.

Colours Available



Heat-Shrink Tubing

RNF-3000

Polyolefin
Flexible, flame retardant

High shrink ratio tubing with superior mechanical (abrasion, cut through, strain relief), thermal and fluid resistance performance. Used extensively in military applications for lightweight harness jackets, insulation, identification, colour coding and protection.

Features & Benefits

- Excellent physical, chemical properties
- Superior abrasion and solvent resistance
- Flexible; conforms to irregular shapes

Operating Temperature

- From -55°C to +135°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +120°C

3:1
shrink

RoHS
compliant

Specifications & Approvals

- VG 95343 Part 5 Type A (colours)
- VDE 0341 Part 9005
- BS 4G 198-3 Type 11B
- UL-E35586, 600V, +125°C (colours)

Inside Diameter		Wall Thickness	Pack Size		Part Number
Supplied	Recovered	Nom. Recovered	1.2m Sticks	Spools	
1.5 mm	0.5 mm	0.45 mm	60m	600m	RNF-3000-1.5/0.5-Colour-xx
3.0 mm	1.0 mm	0.55 mm	60m	300m	RNF-3000-3/1-Colour-xx
6.0 mm	2.0 mm	0.65 mm	60m	150m	RNF-3000-6/2-Colour-xx
9.0 mm	3.0 mm	0.75 mm	30m	150m	RNF-3000-9/3-Colour-xx
12.0 mm	4.0 mm	0.75 mm	30m	150m	RNF-3000-12/4-Colour-xx
18.0 mm	6.0 mm	0.85 mm	30m	150m	RNF-3000-18/6-Colour-xx
24.0 mm	8.0 mm	1.00 mm	30m	60m	RNF-3000-24/8-Colour-xx
39.0 mm	13.0 mm	1.15 mm	12m	60m	RNF-3000-39/13-Colour-xx

For supply to BS 4G-198 add -BS suffix to part No.
Wall thickness will be less if tubing recovery is restricted during shrinkage.
Where xx is either STK (sticks) or SP (spools).

Denotes: Non flame retardant.

NS Denotes Non-Standard colours, may be subject to MOQs.

Colours Available

0	2	4	5	6	9	X	1	3	7	8
Black	Red	Yellow	Green	Blue	White	Clear [#]	Brown ^{NS}	Orange ^{NS}	Violet ^{NS}	Grey ^{NS}

RP-4800

Polyolefin

High shrink ratio, flame retardant

4:1
shrink



High shrink ratio tubing, eliminates the need to remove any connectors or transitions. RP4800 provides excellent abrasion and fluid resistance, meeting industrial and military standards.

Features & Benefits

- Excellent mechanical & electrical characteristics
- Excellent chemical & solvent properties
- Large shrink range with 4:1 ratio

Operating Temperature

- From -55°C to +135°C

Installation

- Minimum shrink temperature +95°C
- Minimum full recovery +121°C

Specifications & Approvals

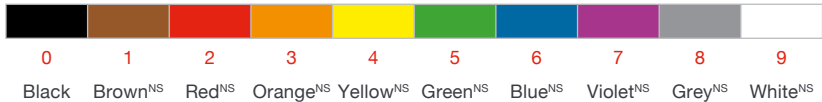
- AMS-DTL23053/5 Class 1
- VG 95343 Part 5 Type A
- VDE 0341 Part 9005 Type A
- UL E35586 600V, 125°C (black only)

Inside Diameter		Wall Thickness	Pack Size		Part Number
Supplied	Recovered	Nom. Recovered	1.2m Sticks	Spools	
25.4 mm	7.0 mm	1.14 mm	30m	60m	RP-4800-No.1-0-xx
50.8 mm	14.0 mm	1.14 mm	6m	60m	RP-4800-No.2-0-xx
76.2 mm	20.6 mm	1.14 mm	6m	30m	RP-4800-No.3-0-xx
101.6 mm	26.7 mm	1.14 mm	6m	30m	RP-4800-No.4-0-xx
25.4 mm	11.7 mm	1.14 mm	30m	60m	RP-4800-No.5-0-xx
60.3 mm	17.3 mm	1.14 mm	6m	60m	RP-4800-No.6-0-xx
76.2 mm	21.3 mm	1.14 mm	6m	30m	RP-4800-No.7-0-xx
95.3 mm	23.6 mm	1.14 mm	6m	30m	RP-4800-No.8-0-xx
114.3 mm	36.8 mm	1.14 mm	6m	30m	RP-4800-No.9-0-xx
38.1 mm	9.5 mm	1.14 mm	6m	60m	RP-4800-No.10-0-xx
19.1 mm	4.6 mm	1.14 mm	30m	60m	RP-4800-No.11-0-xx

For supply to MIL, Def Stan and BS add -MS suffix to part No.
Wall thickness will be less if tubing recovery is restricted during shrinkage.
Where xx is either STK (sticks) or SP (spools).

^{NS} Denotes Non-Standard colours, may be subject to MOQs.

Colours Available



Heat-Shrink Tubing

RT-375

Fluoropolymer
High clarity, flame retardant & flexible

RT-375 provides protection for wire and cable markers from extreme mechanical and chemical abuse, as well as providing UL VW-1 flame retardance and UV protection. The sleeve provides excellent clarity, allowing full visibility of the marker being protected.

Features & Benefits

- Exceptional clarity
- Excellent chemical and fluid resistance
- High degree of flame retardance

Operating Temperature

- From -55°C to +150°C

Installation

- Minimum shrink temperature +125°C
- Minimum full recovery +150°C

2:1
shrink

RoHS
compliant

Specifications & Approvals

- AMS-DTL 23053/18 Class 2
- BS 4G-198 Part 4 Type 20A
- UL-E85351 VW-1 600V, 150°C
- CSA LR31929 VW-1 600v, 150°C

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
1.2 mm	0.6 mm	0.25 mm	304m	RT-375-3/64-X-SP
1.6 mm	0.8 mm	0.25 mm	304m	RT-375-1/16-X-SP
2.4 mm	1.2 mm	0.25 mm	152m	RT-375-3/32-X-SP
3.2 mm	1.6 mm	0.25 mm	152m	RT-375-1/8-X-SP
4.8 mm	2.4 mm	0.25 mm	152m	RT-375-3/16-X-SP
6.4 mm	3.2 mm	0.30 mm	152m	RT-375-1/4-X-SP
9.5 mm	4.8 mm	0.30 mm	120m	RT-375-3/8-X-SP
12.7 mm	6.4 mm	0.30 mm	120m	RT-375-1/2-X-SP
19.0 mm	9.5 mm	0.43 mm	90m	RT-375-3/4-X-SP
25.4 mm	12.7 mm	0.48 mm	76m	RT-375-1-X-SP
38.1 mm	19.0 mm	0.51 mm	76m	RT-375-1-1/2-X-SP
50.8 mm	25.4 mm	0.51 mm	30m	RT-375-2-X-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.
For supply to BS 4G-198 add **-BS** suffix to part number.

Colours Available



X = Clear

RT555

Fluoropolymer

Fluid resistant, extended temperature

2:1
shrink



Offers resistance to high temperatures, solvents, corrosive chemicals and radiation. Low out-gassing (successfully tested for NASA out-gassing requirements). Use for insulation and strain relief on equipment and for protection of electronic instruments.

Features & Benefits

- Extreme resistance to hydrocarbons
- Low out-gassing
- Highly flame retardant

Operating Temperature

- From -65°C to +200°C

Specifications & Approvals

- UL-E85381, 185°C for 100,000 hours continuous use, also listed for 200°C for 40,000-hr intermittent exposure.

Installation

- Minimum shrink temperature +150°C
- Minimum full recovery +220°C

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
3.2	1.57	0.30	100m	RT-555-1/8-0-SP
4.8	2.36	0.36	100m	RT-555-3/16-0-SP
6.4	3.18	0.41	100m	RT-555-1/4-0-SP
9.5	4.75	0.48	100m	RT-555-3/8-0-SP
12.7	6.35	0.48	60m	RT-555-1/2-0-SP
15.9	7.95	0.56	60m	RT-555-5/8-0-SP
19.0	9.53	0.69	60m	RT-555-3/4-0-SP
25.4	12.70	0.79	30m	RT-555-1-0-SP
31.8	15.88	0.84	30m	RT-555-1-1/4-0-SP
38.1	19.05	0.94	15m	RT-555-1-1/2-0-SP
50.8	25.40	1.02	15m	RT-555-2-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinking.
Size selection - The largest size that will recover snugly over the component(s).

Colours Available



0 = Black

Heat-Shrink Tubing

RW-175-E

Polyvinylidene Fluoride
High temperature, chemical resistant

2:1
shrink

RW-175-E is an extremely tough, high temperature tubing offering outstanding abrasion and cut-through resistance. Ideal for strain relief and insulating densely packed electrical connections, while allowing visual inspection of covered components.

Features & Benefits

- High temperature performance
- Resistant to most industrial solvents/fuels
- Low out-gassing version also available*

Operating Temperature

- From -55°C to +175°C

Installation

- Minimum shrink temperature +155°C
- Minimum full recovery +175°C

Specifications & Approvals

- AMS-DTL 23053/8*
- VG 95343 Part 5 Type F
- UL-E35586 VW-1 600V, 150°C

RoHS
compliant

Inside Diameter		Wall Thickness	Pack Size		Part Number
Supplied	Recovered	Nom. Recovered	1.2m Stick	Spools	
1.2 mm	0.6 mm	0.25 mm	60m	300m	RW-175-E-3/64-colour-xx
1.6 mm	0.8 mm	0.50 mm	60m	300m	RW-175-E-1/16-colour-xx
2.4 mm	1.2 mm	0.25 mm	60m	150m	RW-175-E-3/32-colour-xx
3.2 mm	1.6 mm	0.25 mm	60m	150m	RW-175-E-1/8-colour-xx
4.8 mm	2.4 mm	0.25 mm	60m	150m	RW-175-E-3/16-colour-xx
6.4 mm	3.2 mm	0.30 mm	30m	75m	RW-175-E-1/4-colour-xx
9.5 mm	4.8 mm	0.30 mm	30m	75m	RW-175-E-3/8-colour-xx
12.7 mm	6.4 mm	0.30 mm	30m	75m	RW-175-E-1/2-colour-xx
19.0 mm	9.5 mm	0.43 mm	30m	75m	RW-175-E-3/4-colour-xx
25.4 mm	12.7 mm	0.48 mm	30m	75m	RW-175-E-1-colour-xx
38.1 mm	19.1 mm	0.51 mm	12m	30m	RW-175-E-1-1/2-colour-xx

Wall thickness will be less if tubing recovery is restricted during shrinkage.
Where xx is either **STK** (sticks) or **SP** (spools).

* Applicable to low out-gassing variant part number 'RW-175' only (not RW-175-E).

Colours Available



X = Clear

O = Black^{NS}

^{NS} Denotes Non-Standard colour, only available for RW-175

RW-200-E

Fluoroelastomer

High temperature, chemically resistant

2:1
shrink



Resilient very high temperature tubing, resistant to a wide range of fuels, lubricants, acids and solvents at elevated temperatures. RW-200-E is highly flame retardant and meets strict military specifications.

Features & Benefits

- Excellent fluid and temperature resistance
- Flexibility at low temperatures
- Highly flame retardant

Operating Temperature

- From -55°C to +200°C

Installation

- Minimum shrink temperature +100°C
- Minimum full recovery +175°C

Specifications & Approvals

- VG 95343 Part 5 Type E
- VDE 0341 Pt 9005
- BS 4G-198 Part 3 Type 12A

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
3.2	1.60	0.76 mm	50m	RW-200-E-1/8-0-SP
4.8	2.40	0.84 mm	50m	RW-200-E-3/16-0-SP
6.4	3.20	0.89 mm	50m	RW-200-E-1/4-0-SP
9.5	4.80	1.02 mm	50m	RW-200-E-3/8-0-SP
12.7	6.40	1.22 mm	30m	RW-200-E-1/2-0-SP
19.0	9.50	1.45mm	30m	RW-200-E-3/4-0-SP
25.4	12.70	1.78 mm	30m	RW-200-E-1-0-SP
38.1	19.10	2.41 mm	15m	RW-200-E-1-1/2-0-SP
50.8	25.40	2.79 mm	15m	RW-200-E-2-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.
For supply to BS 4G-198 add -BS to suffix to part number.

Colours Available



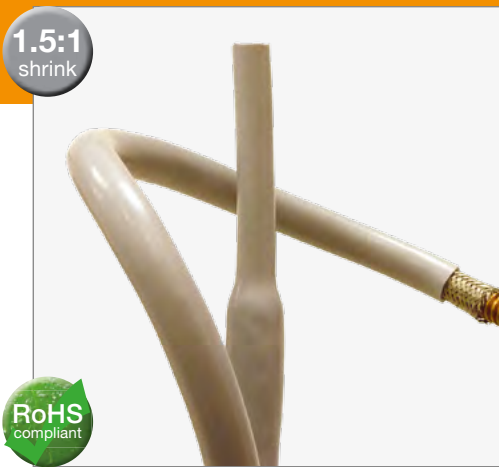
0 = Black

Heat-Shrink Tubing

SRFR

Silicone Rubber

High elasticity & temperature withstand



- 1
- 2
- Silicone heat shrinkable tubing is highly flexible at extreme temperatures, with an excellent balance of physical and electrical properties. SRFR offers physical strength, resists extreme heat shocks & exhibits good thermal insulation.

- 3
- 4
- 5
- Features & Benefits**
- Heat shrinkable at 1.5:1 min. shrink ratio
 - Highly flame retardant
 - Flexible at both high and low temperatures
 - Good chemical & solvent resistance

- 6
- Operating Temperature**
- From -75°C to +200°C

- 7
- Installation**
- Minimum shrink temperature +135°C
 - Minimum full recovery +175°C

- Specifications & Approvals**
- UL E85381 VW-1 600v, 200°C

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
2.9	1.7	1.0 mm	50m	SRFR-2.9/1.7-8-SP
4.0	2.9	1.0 mm	50m	SRFR-4.0/2.9-8-SP
7.8	4.6	1.0 mm	50m	SRFR-7.8/4.6-8-SP
10.0	6.5	1.5 mm	30m	SRFR-10/6.5-8-SP
15.0	9.6	1.5 mm	30m	SRFR-15/9.6-8-SP
21.0	13.0	2.0 mm	30m	SRFR-21/13-8-SP
29.0	20.0	2.0 mm	15m	SRFR-29/20-8-SP
41.0	27.0	3.0 mm	15m	SRFR-41/27-8-SP
51.0	33.0	3.0 mm	15m	SRFR-51/33-8-SP

Spools are made up of 5m lengths.
Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available

8 = Grey

1.8:1
shrink

RoHS
compliant

Provides insulation and mechanical protection in extreme thermal and chemical environments, ideal for electrical insulation, hydraulic hoses and couplings, against contamination and corrosion. High mechanical strength and low friction co-efficient makes TFE ideal protection for bearing shafts and similar applications.

Features & Benefits

- Highly flame retardant
- Excellent chemical & solvent resistance

Operating Temperature

- From -67°C to +250°C

Installation

- Minimum shrink temperature +330°C
- Minimum full recovery temperature +340°C

Specifications & Approvals

- AMS-DTL-23053/12 Class 3
- RW-2055

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	1.2m Lengths	
0.8	0.38	0.23 mm	60m	TFE-30-X-STK
0.9	0.46	0.23 mm	60m	TFE-28-X-STK
1.1	0.56	0.25 mm	60m	TFE-26-X-STK
1.2	0.68	0.25 mm	60m	TFE-24-X-STK
1.4	0.81	0.30 mm	60m	TFE-22-X-STK
1.5	0.99	0.30 mm	60m	TFE-20-X-STK
1.9	1.24	0.30 mm	60m	TFE-18-X-STK
2.3	1.55	0.30 mm	60m	TFE-16-X-STK
3.0	1.83	0.30 mm	60m	TFE-14-X-STK
3.8	2.26	0.30 mm	60m	TFE-12-X-STK
4.8	2.84	0.30 mm	60m	TFE-10-X-STK
6.1	3.58	0.38 mm	30m	TFE-8-X-STK
7.6	4.52	0.38 mm	30m	TFE-6-X-STK
9.4	5.69	0.38 mm	30m	TFE-4-X-STK
10.9	7.06	0.38 mm	30m	TFE-2-X-STK
11.9	8.81	0.38 mm	30m	TFE-0-X-STK

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available



X = Clear

Heat-Shrink Tubing

TFER

PTFE modified

High temperature, chemically inert

3.2:1
shrink

Provides insulation and mechanical protection in extreme thermal and chemical environments. Ideal for electrical insulation, hydraulic hoses and couplings, against contamination and corrosion. High mechanical strength and low friction co-efficient makes TFER ideal protection for bearing shafts and similar applications.

Features & Benefits

- Highly flame retardant
- Excellent chemical & solvent resistance

Operating Temperature

- From -67°C to +250°C

Installation

- Minimum shrink temperature +330°C
- Minimum full recovery +340°C

Specifications & Approvals

- AMS-DTL-23053/12 Class 5
- RW-2054

RoHS
compliant



Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	1.2m Lengths	
2.0	0.6	0.23 mm	60m	TFER-5/64-X-STK
3.2	1.0	0.25 mm	60m	TFER-1/8-X-STK
6.4	1.6	0.30 mm	30m	TFER-1/4-X-STK
9.5	2.4	0.30 mm	30m	TFER-3/8-X-STK
12.7	3.7	0.38 mm	30m	TFER-1/2-X-STK
15.9	4.5	0.38 mm	30m	TFER-5/8-X-STK
19.0	5.7	0.38 mm	30m	TFER-3/4-X-STK
25.4	7.1	0.38 mm	30m	TFER-1-X-STK
32.0	8.8	0.38 mm	12m	TFER-1-1/4-X-STK

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available



X = Clear

2:1
shrink

RoHS
compliant

Recommended for electrical insulation and protection of in-line components, terminals and splices, requiring the highest levels of flame retardance. Versafit offers high flexibility for light duty wiring harnesses, as well as mechanical and strain relief protection.

Features & Benefits

- Low shrink temperature
- Highly flame retardant
- 2:1 shrink ratio

Operating Temperature

- From -55°C to +135°C

Installation

- Minimum shrink temperature +70°C
- Minimum full recovery +90°C

Specifications & Approvals

- AMS-DTL-23053/5 Classes 1 & 3
- UL E35586 VW-1 600V 125°C
- BS 4G-198 Part 3 Type 11A
- RW-3009

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
1.63	0.6	0.40 mm	300m	VERSAFIT-3/64-0-SP
1.85	0.8	0.43 mm	300m	VERSAFIT-1/16-0-SP
2.79	1.2	0.51 mm	150m	VERSAFIT-3/32-0-SP
3.43	1.6	0.51 mm	150m	VERSAFIT-1/8-0-SP
5.21	2.4	0.51 mm	150m	VERSAFIT-3/16-0-SP
7.11	3.2	0.64 mm	75m	VERSAFIT-1/4-0-SP
10.16	4.8	0.64 mm	75m	VERSAFIT-3/8-0-SP
13.72	6.4	0.64 mm	75m	VERSAFIT-1/2-0-SP
20.45	9.5	0.76 mm	75m	VERSAFIT-3/4-0-SP
25.53	12.7	0.89 mm	30m	VERSAFIT-1-0-SP
39.88	19.1	1.02 mm	38m	VERSAFIT-1-1/2-0-SP
52.83	25.4	1.14 mm	38M	VERSAFIT-2-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.

For supply to BS 4G-198 add -BS suffix to part number.

Colours Available

0	2	4	5	6	9
Black	Red ^{NS}	Yellow ^{NS}	Green ^{NS}	Blue ^{NS}	White ^{NS}

^{NS} Denotes Non-Standard colours, that may be subject to MOQs and are only available in sizes from 3/64" thru to 1"

Heat-Shrink Tubing

ZHTM

Polyolefin
LFH, medium wall

2:1
shrink

A thicker wall, flexible tubing with excellent fire safety characteristics, combined with low smoke emission and good mechanical and fluid resistance.

Features & Benefits

- Low smoke emission
- Low evolution of acid gases
- No added halogens
- Very flexible
- Low fire hazard

Operating Temperature

- From -30°C to +105°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +121°C

Specifications & Approvals

- BS 4G-198 Part 3 Type 15
- BR 1326A
- VDE 0341 Part 9005

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Recovered (mm)	Spools	
3.0	1.5	0.70 mm	60m	ZHTM-3/1.5-0-SP
5.0	2.5	0.75 mm	60m	ZHTM-5/2.5-0-SP
8.0	4.0	0.80 mm	60m	ZHTM-8/4-0-SP
12.0	6.0	0.90 mm	30m	ZHTM-12/6-0-SP
18.0	9.0	1.00 mm	30m	ZHTM-18/9-0-SP
24.0	12.0	1.10 mm	30m	ZHTM-24/12-0-SP
40.0	20.0	1.30 mm	30m	ZHTM-40/20-0-SP
50.0	30.0	1.50 mm	30m	ZHTM-50/30-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.
For supply to BS 4G-198 add -BS suffix to part number.

Colours Available

0 = Black



ZH-150 INSTALITE

Polyolefin
LFH, thin wall

2:1
shrink

HALOGEN
FREE

RoHS
compliant

INSTALITE ZH-150 tubing is the first heat shrinkable tubing to combine high-temperature and zero halogen properties in a lightweight material.

Features & Benefits

- Halogen free
- High temperature
- Fluid resistance: Aerospace & Military
- Very flexible
- Ruggedised, abrasion resistant

Operating Temperature

- From -75°C to +150°C

Installation

- Minimum shrink temperature +150°C
- Minimum full recovery +175°C

Specifications & Approvals

- RW-3044

Inside Diameter		Wall Thickness	Pack Size	Part Number
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools	
3.0	1.5	0.70 mm	150m	ZH150-3/1.5-0-SP
5.0	2.5	0.75 mm	150m	ZH150-5/2.5-0-SP
8.0	4.0	0.80 mm	75m	ZH150-8/4-0-SP
12.0	6.0	0.90 mm	75m	ZH150-12/6-0-SP
18.0	9.0	1.00 mm	75m	ZH150-18/9-0-SP
24.0	12.0	1.10 mm	75m	ZH150-24/12-0-SP
40.0	20.0	1.30 mm	30m	ZH150-40/20-0-SP
50.0	30.0	1.50 mm	30m	ZH150-50/30-0-SP

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Colours Available



0 = Black

Heat-Shrink Tubing

ZHT and ZHT-BR

Polyolefin
LFH, thin wall, colours

A zero-halogen thin wall heat-shrinkable tube available in a range of colours. Specifically designed for railway, transportation, marine, offshore and construction markets

Operating Temperature

- ZHT from -30°C to +125°C
- ZHT-BR from -40°C to +135°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +120°C

ZHT can be supplied as UL approved - File No. E180908. Please specify if UL approval is required on order, together with adding suffix 'UL' to the part number.*

ZHT-BR is approved to BR 1326A.

2:1
shrink

HALOGEN
FREE

RoHS
compliant



Specifications & Approvals

ZHT is LUL approved - Complies with LU Standard 1-085 'Fire Safety Performance of Materials' (as a 'minor use' item).

Inside Diameter		Wall Thick'ns	Pack Size	Part Number	
Supplied (mm)	Recovered (mm)	Nom. Recovered	Spools		
1.2	0.6	0.45 mm	150m	ZHT-1.2-#	-
1.6	0.8	0.43 mm	150m	ZHT-1.6-#	ZHT-BR-1.6-#
2.4	1.2	0.51 mm	150m	ZHT-2.4-#	ZHT-BR-2.4-#
3.2	1.6	0.51 mm	150m	ZHT-3.2-#	ZHT-BR-3.2-#
4.8	2.4	0.51 mm	150m	ZHT-4.8-#	ZHT-BR-4.8-#
6.4	3.2	0.65 mm	75m	ZHT-6.4-#	ZHT-BR-6.4-#
9.5	4.8	0.65 mm	75m	ZHT-9.5-#	ZHT-BR-9.5-#
12.7	6.4	0.65 mm	75m	ZHT-12.7-#	ZHT-BR-12.7-#
19.1	9.5	0.75 mm	30m	ZHT-19.1-#	ZHT-BR-19.1-#
25.4	12.7	0.90 mm	30m	ZHT-25.4-#	ZHT-BR-25.4-#
38.1	19.0	1.00 mm	30m	ZHT-38.1-#	-
50.8	25.4	1.15 mm	30m	ZHT-50.8-#	-

Wall thickness will be less if tubing recovery is restricted during shrinkage.

ZHT and ZHT-BR supplied in spools as standard and ZHT-BR can be supplied in smaller boxed packs.

*Please note that when ordering 'UL' approved ZHT tubing, MOQ's and longer lead times may apply

Colours Available

0	1	2	4	5	6	8	9	X	45
Black	Brown	Red	Yellow	Green	Blue	Grey	White	Clear	Grn/Ylw



ATUM has an internal adhesive coating that, when heated, melts and flows to form a positive environmental barrier to prevent moisture penetration. Used to seal back-end connectors, wire splices, break-outs, cable jackets and electrical components.

Features & Benefits

- Environmentally seals and protects
- Excellent mechanical protection
- Bonds to plastics, rubbers and metals.

Operating Temperature

- From -55°C to +110°C

Specifications & Approvals

- AMS-DTL-23053/4 Class 3
- UL E85381 600v, 110°C (Black only)

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +110°C

	Inside Diameter		Nom Wall Thickness		Pack Size		Part Number
	Supplied	Recovered	Total Wall	Adhesive Wall	1.2m Sticks	Spools	
ATUM 3:1 Ratio	3.0 mm	1.0 mm	1.00 mm	0.50 mm	30m	150m	ATUM-3/1-0-xx
	6.0 mm	2.0 mm	1.00 mm	0.50 mm	30m	250m	ATUM-6/2-0-xx
	9.0 mm	3.0 mm	1.40 mm	0.60 mm	30m	200m	ATUM-9/3-0-xx
	12.0 mm	4.0 mm	1.78 mm	0.75 mm	30m	200m	ATUM-12/4-0-xx
	19.0 mm	6.0 mm	2.25 mm	0.80 mm	30m	150m	ATUM-19/6-0-xx
	24.0 mm	8.0 mm	2.54 mm	1.00 mm	30m	80m	ATUM-24/8-0-xx
	40.0 mm	13.0 mm	2.54 mm	1.00 mm	12m	60m	ATUM-40/13-0-xx
ATUM 4:1 Ratio	4.0 mm	1.0 mm	1.00 mm	0.50 mm	30m	150m	ATUM-4/1-0-xx
	8.0 mm	2.0 mm	1.00 mm	0.50 mm	30m	200m	ATUM-8/2-0-xx
	12.0 mm	3.0 mm	1.40 mm	0.60 mm	30m	200m	ATUM-12/3-0-xx
	16.0 mm	4.0 mm	1.78 mm	0.75 mm	30m	200m	ATUM-16/4-0-xx
	24.0 mm	6.0 mm	2.25 mm	0.80 mm	30m	80m	ATUM-24/6-0-xx
	32.0 mm	8.0 mm	2.54 mm	1.00 mm	12m	60m	ATUM-32/8-0-xx
	52.0 mm	13.0 mm	2.54 mm	1.00 mm	6m	30m	ATUM-52/13-0-xx

For supply to AMS-DTL23053 add **-MS** suffix to part number.
Wall thickness will be less if tubing recovery is restricted during shrinkage.
Where **xx** is either **STK** (sticks) or **SP** (spools). Standard colour.
Size selection - The largest size that will recover snugly over the component(s).

Colours Available



0 = Black

Heat-Shrink Tubing

CGAT

Commercial Grade, Polyolefin
Adhesive lined

Used to seal back-end connector, wire splices, break outs, cable jackets and electrical components. Includes an internal adhesive coating, that when heated, melts and flows to form a positive environmental barrier to prevent moisture

Features & Benefits

- Environmentally seals and protects
- Excellent mechanical protection
- High strength bonding

Operating Temperature

- From -30°C to +80°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +115°C

3:1
shrink

RoHS
compliant

Specifications & Approvals

- UL E85381, 600v, 80°C
- FMVSS 302

Inside Diameter		Nom Wall Thickness		Pack Size		Part Number
Supplied	Recovered	Total Wall	Adhesive Wall	1.2m Sticks	Spool	
3.0 mm	1.0 mm	1.00 mm	0.50 mm	30m	150m	CGAT-3/1-0-xx
6.0 mm	2.0 mm	1.00 mm	0.50 mm	30m	250m	CGAT-6/2-0-xx
9.0 mm	3.0 mm	1.35 mm	0.60 mm	30m	200m	CGAT-9/3-0-xx
12.0 mm	4.0 mm	1.50 mm	0.70 mm	30m	200m	CGAT-12/4-0-xx
18.0 mm	6.0 mm	1.70 mm	0.80 mm	30m	150m	CGAT-18/6-0-xx
24.0 mm	8.0 mm	1.90 mm	1.00 mm	30m	80m	CGAT-24/8-0-xx
39.0 mm	13.0 mm	2.10 mm	1.00 mm	12m	60m	CGAT-39/13-0-xx

Wall thickness will be less if tubing recovery is restricted during shrinkage.

Where **xx** is either **STK** (sticks) or **SP** (spools).

Size selection - The largest size that will recover snugly over the component(s).

Colours Available



0 = Black

X = Clear^s

^s Denotes: Made to special order only, non flame retardant.

D-150 and D-260

Fluoropolymer Sleeve
Adhesive lined, Repair sleeves



C-Wrap

Heat shrinkable side-entry sleeve designed to repair and seal a damaged wire jacket that is either chafed or has a radial crack or cut on the insulation. Consisting of two pieces: the outer tubing and an adhesive inner layer.

Operating temperature -65°C to +150°C

RAYSEAL

Wraparound self-adhering heat shrinkable repair sleeve with high-temperature adhesive lining, for fast, reliable, sealed repairs to larger gauge cables, maintains the cable jacket properties as close as possible to its original specification.

Operating temperature -65°C to +260°C

Fluid resistance: Resists aggressive fluids used in military and aerospace platforms.

Conductor / Cable		Dimensions (mm)		Colour	Product Reference	
AWG	Wire OD (mm)	Cut Width*	Open Length	-	Part Number	Kit Part No. #

C-WRAP Small Gauge, Side Entry Repair

26 - 24	0.80 - 1.10	20 mm	n/a	Green	D-150-C-11	-
22 - 20	1.10 - 1.50	20 mm	n/a	Red	D-150-C-12	-
18 - 16	1.50 - 2.30	20 mm	n/a	Blue	D-150-C-13	-
14 - 12	2.30 - 2.80	20 mm	n/a	Yellow	D-150-C-14	-

RAYSEAL Wraparound Large Gauge, Side Entry Repair

10 - 8	3.48 - 5.16	45 mm	24.5 (35.6)	Black	D-260-C-A	EF7428-000
6 - 4	5.72 - 7.82	45 mm	31.8 (43.2)	Black	D-260-C-B	EF7429-000
2 - 0	9.04 - 11.81	45 mm	44.5 (55.9)	Black	D-260-C-C	EF7430-000
00 - 000	12.32 - 14.99	45 mm	53.3 (67.8)	Black	D-260-C-D	EF7431-000
0000	14.99 - 16.26	45 mm	63.5 (78.8)	Black	D-260-C-E	EF7432-000

* Cut length is the nominal dimension presented along the length of the cable.

Kit part ref contains abrasive pad, cleaning wipes and PTFE tape.

Heat-Shrink Tubing

HTAT

High Temperature, Polyolefin
Adhesive lined

HTAT has an internal adhesive coating that when heated melts and flows to form a positive environmental barrier to prevent moisture penetration.

Features & Benefits

- Environmentally seals and protects
- Excellent abrasion & mechanical protection
- Bonds to metals, rubbers and plastics including PVC and polyethylene

Operating Temperature

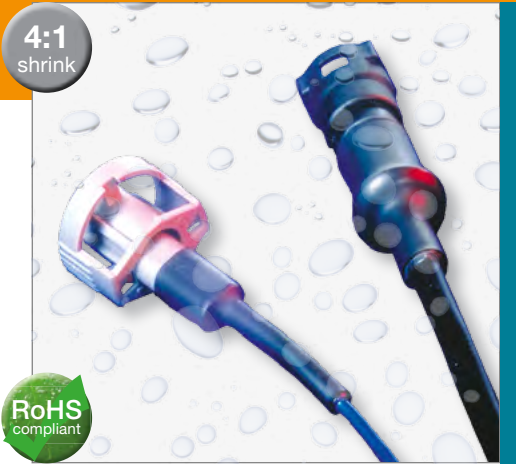
- From -55°C to +125°C

Installation

- Minimum shrink temperature +80°C
- Minimum full recovery +110°C

Specifications & Approvals

- RW-2052



Inside Diameter		Nom Wall Thickness		Pack Size		Part Number
Supplied	Recovered	Recovered	Adhesive	1.2m Sticks	Spools	
4.0 mm	1.0 mm	1.00 mm	0.40 mm	30m	150m	HTAT-4/1-0-xx
8.0 mm	2.0 mm	1.00 mm	0.50 mm	30m	75m	HTAT-8/2-0-xx
12.0 mm	3.0 mm	1.40 mm	0.60 mm	30m	75m	HTAT-12/3-0-xx
16.0 mm	4.0 mm	1.75 mm	0.75 mm	30m	50m	HTAT-16/4-0-xx
24.0 mm	6.0 mm	2.25 mm	0.80 mm	30m	50m	HTAT-24/6-0-xx
32.0 mm	8.0 mm	2.50 mm	1.00 mm	12m	30m	HTAT-32/8-0-xx
48.0 mm	13.0 mm	2.55 mm	1.00 mm	6m	30m	HTAT-48/13-0-xx

Wall thickness will be less if tubing recovery is restricted during shrinkage.
Where xx is either STK (sticks) or SP (spools).

Colours Available

0 = Black

SCL

Semi-rigid, Polyolefin
Encapsulant lined

3:1
shrink



RoHS
compliant

Designed to encapsulate components, splices and terminations where moisture resistance and mechanical protection are required. Encapsulant melts and flows to fill surface irregularities of the substrate. While still hot, the tubing can be blocked to form a wire breakout.

Features & Benefits

- Semi-rigid encapsulant lined tubing
- Excellent moisture resistance
- Good chemical & solvent resistance

Operating Temperature

- From -55°C to +110°C

Installation

- Minimum shrink temperature +125°C
- Minimum full recovery +135°C

Specifications & Approvals

- AMS-DTL 23053/4, Class 1
- UL-E35581 600V, 125°C

Inside Diameter		Nominal Wall Thickness		Pack Size	Part Number
Supplied	Recovered	Recovered	Encapsulant	1.2m Stick	
3.2 mm	0.6 mm	0.96 mm	0.51 mm	30m	SCL-1/8-0*-STK
4.8 mm	1.5 mm	1.09 mm	0.64 mm	30m	SCL-3/16-0*-STK
6.4 mm	2.0 mm	1.19 mm	0.69 mm	30m	SCL-1/4-0*-STK
9.5 mm	3.4 mm	1.27 mm	0.76 mm	30m	SCL-3/8-0*-STK
12.7 mm	5.0 mm	1.39 mm	0.89 mm	30m	SCL-1/2-0*-STK
19.0 mm	8.0 mm	1.65 mm	1.02 mm	30m	SCL-3/4-0*-STK
25.4 mm	10.2 mm	1.90 mm	1.02 mm	30m	SCL-1-0*-STK

Wall thickness will be less if tubing recovery is restricted during shrinkage.
Colour as standard is Black (0)*, with optional colour per size, see table below.

Colours Available



0	1	2	4	6	8	9
Black	Brown ^{NS}	Red ^{NS}	Yellow ^{NS}	Blue ^{NS}	Grey ^{NS}	White ^{NS}
All	3.2mm	9.5mm	19.0mm	12.7mm	4.8mm	6.4mm

^{NS} Denotes: Non standard colours available in quoted size only.

Heat-Shrink Tubing

SCT

Flame Retardant, Polyolefin
Adhesive Lined

Specially designed to insulate and seal wire splices and components in a harsh high temperature environment. Formulated to function at an extended temperature range.

Features & Benefits

- Flame retardant and mechanically tough, the tubing provides strain relief and abrasion protection.
- Thick adhesive liner forms an effective barrier against fluids and moisture.

Operating Temperature

- From -40°C to +150°C

Installation

- Minimum shrink temperature +110°C
- Minimum full recovery +135°C

4:1
shrink

RoHS
compliant

Flammability Rating

- ASTM D 2671 procedure B

Inside Diameter		Recovered Wall Thickness		Part Number
Supplied	Recovered	Total Wall	Melt-able Wall	
7.6 mm	1.7 mm	1.52 mm	0.76 mm	SCT-No.1-E6-0-1200
9.0 mm	2.3 mm	1.52 mm	0.76 mm	SCT-No.2-E5-0-1200
11.6 mm	2.5 mm	2.29 mm	1.40 mm	SCT-No.3-E3-0-1200
17.8 mm	4.4 mm	2.54 mm	1.52 mm	SCT-No.4-E2-0-1200

Wall thickness will be less if tubing recovery is restricted during shrinking.
Marking - Tubing will be printed with its numbered size 'e.g. SCT-1' in white.

Colours Available

0 = Black