

Conversion from imperial to metrics									
Zoll	1/32"	3/64"	1/16"	5/64"	3/32"	1/8"	3/16"	1/4"	3/8"
mm	0.8	1.2	1.6	2.0	2.4	3.2	4.8	6.4	9.5
Zoll	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"
mm	12.7	15.9	19.1	25.4	31.8	38.1	50.8	76.2	101.6

The right heat shrink tube

The 80:20 rule means that a heat shrink tube should shrink by a maximum of 80% and a minimum of 20%. For example: A cable with a diameter of 5 mm is to be wrapped in heat shrinkable tubing. In theory both sizes 6/2 and 12/4 would be suitable since the required diameter of 5 mm lies within the shrink range of both tube sizes.

Maximum shrink (100%)



Maximum shrinkage = 4 mm

Optimum shrink max. (80%)



Shrinkage of 3.2 mm

Optimum shrink min. (20%)



Shrinkage of 0.8 mm

Size 6/2 has a range of application of between 2.8 mm and 5.2 mm and is therefore suitable for the cable diameter of 5 mm.

Maximum shrink (100%)



Maximum shrinkage = 8 mm

Optimum shrink max. (80%)



Shrinkage of 6.4 mm

Optimum shrink min. (20%)



Shrinkage of 1.6 mm

The smallest application diameter of size 12/4 is 5.6 mm. This size is therefore unsuitable for a cable diameter of 5 mm.

ST4XA-GR

Dual wall semirigid tubing with adhesive

High shrink ratio allows a few sizes to cover a wide range of splice and component diameter, mechanically tough tubing provides strain relief and abrasion protection of wire splices, terminals and other components. Suitable for electronics and automotive industry where components are of irregular sizes, shapes and protection against water and moisture are important.



- **Material:**
modified polyolefin
- **Colour:**
black, transparent
- **Packaging:**
spool
- Environmental friendly, free from toxic and heavy metal compounds
- UL 224, 125°C, VW-1
- High shrink ratio
- Flame retardant
- Waterproof
- Semirigid



Property	Method of test	Value
Tensile strength	ASTM D 2671	10.4MPa
Tensile strength after ageing (158°C / 168 hrs)	ASTM D 2671	70%
Elongation at break	ASTM D 2671	min.300%
Elongation at break after ageing (158°C / 168 hrs)	ASTM D 2671	min. 200%
Heat shock (250 / °C 4 hrs)	ASTM D 2671	No cracking
Cold tolerance (-30 / °C 1 hrs)	ASTM D 2671	No cracking
Water absorption	ASTM D 570	<0,2%
Volume resistance	ASTM D 876	10 ¹⁴ Ω.cm
Copper stability	UL 224 158°C /168 h	Pass
Flammability	SAE-AMS-DTL-23035/5	Self-extinguish in 30sec
Longitudinal shrinkage	UL 224	0% - 10%
Dielectric strength	ASTM D 2671	No breakdown

Article No.	Internal diameter (mm)		Wall thickness fully recovered (mm)	Spools (m)	Shape
	Min.as supplied	Max. fully recovered			
ST4XA-010-GR	4	0,95	1.20+/-0.20	0.50+/-0.10	200
ST4XA-060-GR	5.7	1,27	1.30+/-0.20	0.60+/-0.10	100
ST4XA-080-GR	7.5	1,65	1.65+/-0.20	0.75+/-0.10	100
ST4XA-120-GR	11.5	2,41	2.0+/-0.20	1.20+/-0.20	25
ST4XA-180-GR	18	4,45	2.5+/-0.20	1.40+/-0.20	25