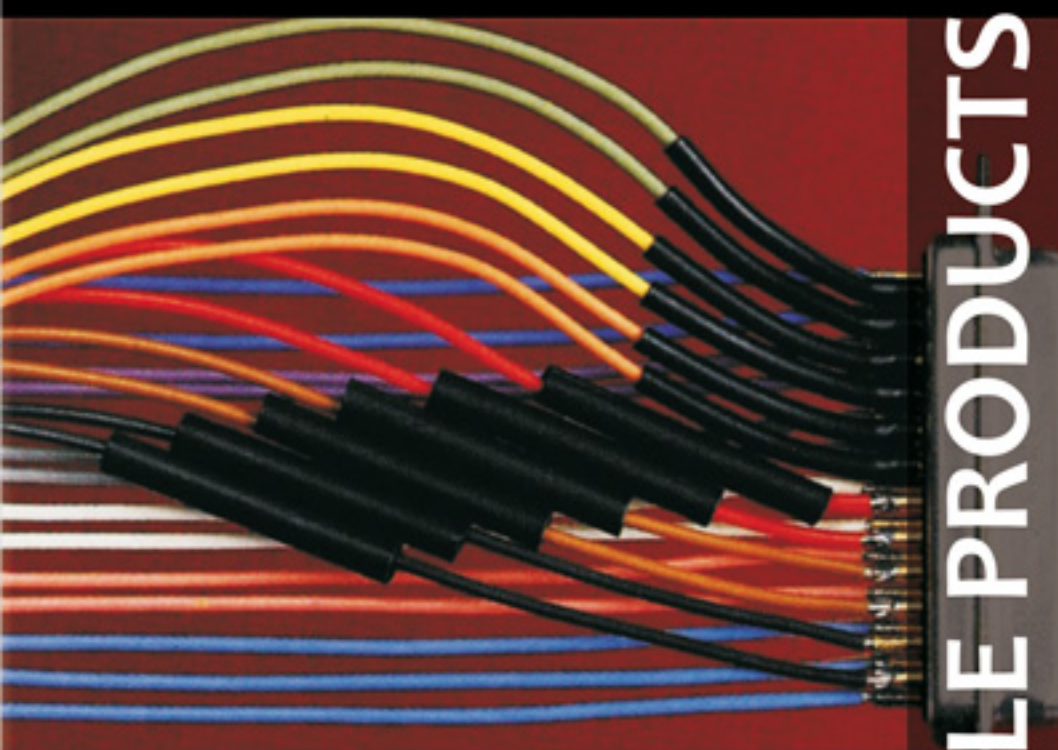


HEAT SHRINKABLE PRODUCTS



THIN WALL HEAT SHRINKABLE TUBE (TWU)

General features:

Thin wall tubes are made of X-linked polyolefin and they shrink if they are in exposure of over 120°C heat.

There are 2 kinds of these tubes with shrink ratio of 2:1

1. Commercial grade (TWU-C):

for general applications. These tubes are suitable for providing a plastic cover for different applications such as:

- ☐ Insulations for low voltage terminations and joints.
- ☐ Coding in automobile manufacturing companies.
- ☐ Chemical protection against environmental factors.
- ☐ Household use
- ☐ Covering wires, cable lugs, copper bus bars and use in switchgears.



COLORS

- ☐ White
- ☐ Grey
- ☐ Black
- ☐ Blue
- ☐ Red
- ☐ Yellow
- ☐ Yellow-green
- ☐ Green

General Features

FEATURES	RESULTS	STANDARD
THERMAL		
Continuous temperature limits	- 40°C +125°C	---
Thermal shock	No damage	ASTM D 2671
Flammability	No self extinguishing	ASTM D 876
PHYSICAL		
Tensile strength	≥ 10MPa	ASTM D 638
Elongation	≥ 500 %	ASTM D 638
Longitudinal change	≤ 10 %	ASTM D 2671
ELECTRICAL		
Dielectric strength	≥ 20kV/mm	ASTM D 149
Volume resistivity	≥ 1*10 ¹² Ω cm	ASTM D 257
CHEMICAL		
Environmental resistance	No damage	ASTM D 1693
Oil resistance	Excellent	ISO 175
Mould resistance	No growth	ASTM D 638 / ASTM G 21

Dimensions Inch	Dimensions mm	Dmin mm	dmax mm	Tmin mm	Packaging m
3/32	2.4/1.2	2.4	1.2	0.4	200
1/8	3.2/1.6	3.2	1.6	0.45	200
3/16	4.8/2.4	4.8	2.4	0.5	200
1/4	6.4/3.2	6.4	3.2	0.55	200
3/8	9.5/4.8	9.5	4.8	0.6	100
1/2	12.7/6.4	12.7	6.4	0.6	100
3/4	19/9.5	19	9.5	0.7	100
1	25.4/12.7	25.4	12.7	0.75	100
1/5	38/19	38	19	0.9	50
2	51/25.4	51	25.4	1	50
3	76/38	76	38	1.25	50
4	102/51	102	51	1.35	50

Dimensions mm	Dmin mm	dmax mm	Tmin mm	Packaging m
3/1.5	3	1.5	0.45	200
4/2	4	2	0.45	200
5/2.5	5	2.5	0.5	200
6/3	6	3	0.5	200
8/4	8	4	0.6	150
9/4.5	9	4.5	0.6	100
10/5	10	5	0.6	100
12/6	12	6	0.6	100
14/7	14	7	0.65	100
16/8	16	8	0.65	100
18/9	18	9	0.7	100
20/10	20	10	0.7	100
22/11	22	11	0.7	100
25/12.5	25	12.5	0.75	100
30/15	30	15	0.85	50
50/25	50	25	1	50

2. Halogen free and self extinguishing (TWU-S):

This is a halogen free and self extinguishing tube in x-linked polyolefin which can provide excellent insulation and protection for various industrial applications mainly for:

- ☐ Cable harnessing
- ☐ Low voltage electrical insulation
- ☐ Coding



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FEATURES	RESULTS	STANDARD
THERMAL		
Continuous temperature limits	- 55°C + 135°C	- - -
Thermal shock	No damage	ASTM D 2671
Brittleness temperature	< - 55 C	ASTM D 746
Flammability	Self extinguishing	ASTM D 876
PHYSICAL		
Tensile strength	≥ 12MPa	ASTM D 638
Elongation	≥ 400 %	ASTM D 638
Longitudinal change	≤ 10 %	ASTM D 2671
ELECTRICAL		
Dielectric strength	≥ 20kV/mm	ASTM D 149
Volume resistivity	≥ 1*10 ¹⁵ Ω cm	ASTM D 257
CHEMICAL		
Environmental resistance	No damage	ASTM D 1693
Oil resistance	Excellent	ISO 175
Mould resistance	No growth	ASTM D 257 / ASTM G 21

Dimensions Inch	Dimensions mm	Dmin mm	dmax mm	Tmin mm	Packaging m
3/32	2.4/1.2	2.4	1.2	0.4	200
1/8	3.2/1.6	3.2	1.6	0.45	200
3/16	4.8/2.4	4.8	2.4	0.5	200
1/4	6.4/3.2	6.4	3.2	0.55	200
3/8	9.5/4.8	9.5	4.8	0.6	100
1/2	12.7/6.4	12.7	6.4	0.6	100
3/4	19/9.5	19	9.5	0.7	100
1	25.4/12.7	25.4	12.7	0.75	100
1/5	38/19	38	19	0.9	50
2	51/25.4	51	25.4	1	50
3	76/38	76	38	1.25	50
4	102/51	102	51	1.35	50

Dimensions mm	Dmin mm	dmax mm	Tmin mm	Packaging m
3/1.5	3	1.5	0.45	200
4/2	4	2	0.45	200
5/2.5	5	2.5	0.5	200
6/3	6	3	0.5	200
8/4	8	4	0.6	150
9/4.5	9	4.5	0.6	100
10/5	10	5	0.6	100
12/6	12	6	0.6	100
14/7	14	7	0.65	100
16/8	16	8	0.65	100
18/9	18	9	0.7	100
20/10	20	10	0.7	100
22/11	22	11	0.7	100
25/12.5	25	12.5	0.75	100
30/15	30	15	0.85	50
50/25	50	25	1	50



HEAT SHRINKABLE PRODUCTS



THIN WALL HEAT SHRINKABLE TUBE (TWU-C & TWU-S)

Thin wall heat-shrinkable tubes in X-linked polyolefin with a shrinking ratio of 3:1 are supplied in two types:

- ☐ Commercial use
- ☐ Self extinguishing and halogen free

Their main applications are:

- ☐ Low voltage electrical insulation
- ☐ Cable harnessing
- ☐ Chemical protection against environmental factors
- ☐ Coding in automobile manufacturing companies
- ☐ household use
- ☐ Covering the wires, cable lugs and copper bus bar and using in switch gears.



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FEATURES	RESULTS	STANDARD
THERMAL		
Continuous temperature limits	- 55° C +135° C	---
Thermal shock	No damage	ASTM D 2671
PHYSICAL		
Tensile strength	≥ 12MPa	ASTM D 638
Elongation	≥ 500 %	ASTM D 638
Longitudinal change	≤ 10 %	ASTM D 2671
ELECTRICAL		
Dielectric strength	≥ 20kV/mm	ASTM D 149
Volume resistivity	≥ 1*10 ¹⁵ Ω cm	ASTM D 257
CHEMICAL		
Environmental resistance	No damage	ASTM D 1693
Oil resistance	Excellent	ISO 175
Mould resistance	No growth	ASTM G 21

Dimensions mm	Dmin mm	dmax mm	Tmin
9/3	9.0	3.0	09
12/4	12.0	4.0	0.9
18/6	18.0	6.0	1
24/8	24.0	8.0	1.1
40/13	40.0	13.0	1.3