Polychem Products

GSHS 1625

FLEXIBLE, FLAME-RETARDANT POLYOLEFIN 600V, 125^{O} C, 2:1

Applications

GSHS-1625 is a flexible, flame-retardant heat –shrinkable polyolefin tube. It is designed for a vide range of application including insulation for electric & electronic devices, wire strain relief and protective covering for parts such as resistors and capacitors.

Features

- Shrink Ratio : 50% or more in the radial direction
  7% in the axial direction
- Continuous operation temperature :-55^{o}C to 125^{o}C
- Flammability : UL VW-1, CSA OFT, -F-MARK
- Excellent electrical properties.
- High resistance to chemicals and oils.

SPECIFICATION VALUES

		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 200%
	Aged	Tensile Strength Elongation	158^{o}C/168 hrs	Min. 70% of the Value of unaged specimens Min. 100%
	Deformation		125^{o}C/1 hr	Max. 50%
	Heat shock		136^{o}C/1 hr	No crack
	Cold bend		-30^{o}C/1 hr	No crack
	Flexibility		158^{o}C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158^{o}C/168 hrs	No corrosion
	Copper Stability		158^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

STANDARDS

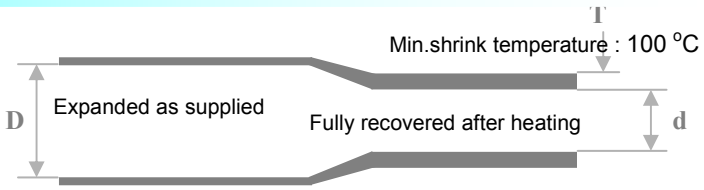
UL 224 (File No.:E84393) CSA C22.2 (File No.: LR55659)

GSHS-1625

FLEXIBLE, FLAME-RETARDANT POLYOLEFIN
600V, 125° C, 2:1

Polychem Products

Product Dimensions



SIZE	D(Nom.) Inside Diameter of expanded as supplied (mm)	d(Max.) Inside Diameter of Recovered after heating (mm)	T(Min.) Wall thickness of Recovered after heating (mm)	STANDARD LENGTH (M)
(METRIC SIZE)				
0.20 T X 1.5	1.9	0.75	0.356	200
0.25 T X 2.0	2.3	1.00	0.432	200
0.25 T X 2.5	2.8	1.25	0.432	200
0.25 T X 3.0	3.3	1.50	0.4.32	200
0.25 T X 3.5	3.8	1.75	0.432	200
0.25 T X 4.0	4.3	2.00	0.432	200
0.25 T X 5.0	5.3	2.50	0.559	100
0.25 T X 6.0	6.3	3.00	0.559	100
0.25 T X 7.0	7.6	3.50	0.559	100
0.25 T X 8.0	8.6	4.00	0.559	100
0.25 T X 9.0	9.6	4.5	0.599	100
0.25 T X 10.0	10.6	5.00	0.559	100
0.25 T X 11.0	11.6	5.50	0.559	100
0.25 T X 12.0	12.6	6.00	0.559	100
0.30 T X 13.0	13.6	6.50	0.686	50
0.30 T X 14.0	14.6	7.00	0.686	50
0.30 T X 15.0	15.6	7.50	0.686	50
0.30 T X 16.0	16.9	8.00	0.686	50
0.35 T X 18.0	18.9	9.00	0.762	50
0.35 T X 20.0	20.9	10.00	0.762	50
0.40 T X 22.0	22.9	11.00	0.762	50
0.40 T X 24.0	24.9	12.00	0.762	50
0.40 T X 25.0	26.2	12.50	0.864	50
0.40 T X 26.0	27.2	13.00	0.864	50
0.40 T X 28.0	29.2	14.00	0.864	50
0.40 T X 30.0	31.2	15.00	0.864	50
0.40 T X 32.0	33.2	16.00	0.864	50
0.43 T X 38.0	39.0	19.00	0.864	31

Ordering Information

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Standard colors : Black, White, Yellow, Red, Blue, Green, Gray, orange,Brown & Violet , Clear (Non flame-retardant).
Size selection : Always order the largest size that will shrink snugly over the component to be covered.
Standard package : On spools.
Ordering description : Specify product name, size, and color [for example, GSHS-1625-0.25Tx6mm-BK]

GSHS 1635 F

Polychem Products

FLEXIBLE, FLAME-RETARDANT POLYOLEFIN 600V, 135^{O} C, 2:1

Applications

GSHS-1635F is a flexible, flame-retardant heat –shrinkable polyolefin tube. It is designed for a vide range of applications requiring highly heat – resistance, including insulation for electric & electronic devices, wire strain relief and protective covering for parts such as resistors and capacitors.

Features

- Shrink Ratio : 50% or more in the radial direction
  7% in the axial direction
- Continuous operation temperature :-55^{o}C to 135^{o}C
- Flammability : UL VW-1, CSA OFT, -F-MARK
- Excellent electrical properties.
- High resistance to chemicals and oils.

SPECIFICATION VALUES

		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 200%
	Aged	Tensile Strength Elongation	158^{o}C/168 hrs	Min. 75% of the Value of unaged specimens Min. 100%
	Deformation		158^{o}C/1 hr	Max. 50%
	Heat shock		250^{o}C/4 hrs	No crack
	Cold bend		-55^{o}C/4 hrs	No crack
	Flexibility		158^{o}C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158^{o}C/168 hrs	No corrosion
	Copper Stability		158^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

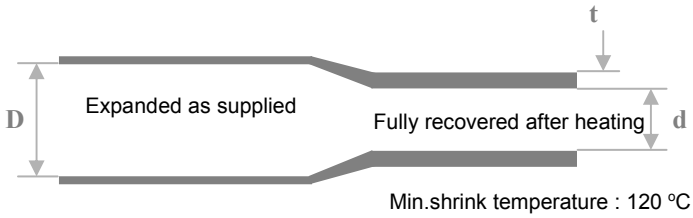
STANDARD

UL 224 (File No.:E84393) CSA C22.2 (File No.: LR55659) MIL -I-23053/5 Class 1 Type

GSHS-1635F

Polychem Products

FLEXIBLE, FLAME-RETARDANT POLYOLEFIN
600V, 135^{O} C, 2:1



Min.shrink temperature : 120 ºC

Product Dimensions

SIZE	D(Nom.) Inside Diameter of expanded as supplied (mm)	d(Max.) Inside Diameter of Recovered after heating (mm)	t(Min.) Wall thickness of Recovered after heating (mm)	STANDARD LENGTH (M)
(METRIC SIZE)				
0. 20 T X 1.5	1. 9	0. 75	0. 356	200
0. 25 T X 2.0	2. 3	1. 00	0. 432	200
0. 25 T X 2.5	2. 8	1. 25	0. 432	200
0. 25 T X 3.0	3. 3	1. 50	0. 4.32	200
0. 25 T X 3.5	3. 8	1. 75	0. 432	200
0. 25 T X 4.0	4. 3	2. 00	0. 432	200
0. 25 T X 5.0	5. 3	2. 50	0. 559	100
0. 25 T X 6.0	6. 3	3. 00	0. 559	100
0. 25 T X 7.0	7. 6	3. 50	0. 559	100
0. 25 T X 8.0	8. 6	4. 00	0. 559	100
0. 25 T X 9.0	9. 6	4. 50	0. 599	100
0. 25 T X 10.0	10. 6	5. 00	0. 559	100
0. 25 T X 11.0	11. 6	5. 50	0. 559	100
0. 25 T X 12.0	12. 6	6. 00	0. 559	100
0. 30 T X 13.0	13. 6	6. 50	0. 686	50
0. 30 T X 14.0	14. 6	7. 00	0. 686	50
0. 30 T X 15.0	15. 6	7. 50	0. 686	50
0. 35 T X 16.0	16. 9	8. 00	0. 686	50
0. 35 T X 18.0	18. 9	9. 00	0. 762	50
0. 35 T X 20.0	20. 9	10.00	0. 762	50
0. 40 T X 22.0	22. 9	11.00	0. 762	50
0. 40 T X 24.0	24. 9	12.00	0. 762	50
0. 40 T X 25.0	26. 2	12.50	0. 864	50
0. 40 T X 26.0	27. 2	13.00	0. 864	50
0. 40 T X 28.0	29. 2	14.00	0. 864	50
0. 40 T X 30.0	31. 2	15.00	0. 864	50
0. 40 T X 32.0	33. 2	16.00	0. 864	50
0. 43 T X 38.0	39.0	19.00	0. 864	31

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black[BK],white[WT],yellow[YL],red[RD],blue[BL],green[GN],gray[GY],brown[BN].
Size selection : Always order the largest size that will shrink snugly over the component to be covered.
Standard package : On spools.
Ordering description : Specify product name, size, and color [for example, GSHS 1635F – 0.20 T X 1.5mm BK]

GSHS 1675

Polychem Products

HIGH TEMPERATURE CHEMICAL-RESISTANT PVF_2 600V, 175^{O} C, 2:1

Applications

GSHS-1675 is a rigid, flame-retardant heat –shrinkable PVF_2 for applications requiring outstanding abrasion and cut-through resistance. It reliably protects wires, solder joints, terminals, connections and components from most industrial fuels, solvents and chemicals.

Features

- Shrink Ratio : 50% or more in the radial direction
  7% in the axial direction
- Continuous operation temperature :-55^{o}C to 175^{o}C
- Flammability : UL VW-1, CSA OFT
- Excellent electrical properties.
- High resistance to chemicals and oils.

SPECIFICATION VALUES

		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 3.52kgf/mm^2 Min. 150%
	Aged	Tensile Strength Elongation	180^{o}C/168 hrs	Min. 70% of the Value of unaged specimens
	Deformation		150^{o}C/1 hr	Max. 50%
	Heat shock		300^{o}C/1 hr	No crack
	Cold bend		-55^{o}C/4 hrs	No crack
	Flexibility		180^{o}C/168 hrs	No cracks
	Secant modulus		-	Min. 84.4kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{13} Q – cm
Chemical	Copper corrosion		180^{o}C/168 hrs	No corrosion
	Copper Stability		180^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

STANDARDS

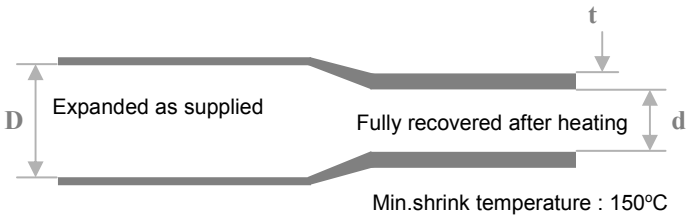
UL 224 (File No.:E84393) MIL -I-23053/8

GSHS-1675

Polychem Products

HIGH TEMPERATURE CHEMICAL-RESISTANT PVF_2 600V, 175^{O} C, 2:1

Product Dimensions



SIZE (Diameter)	Inside Diameter		t(mm) Wall Thickness		STANDARD LENGTH (m)
	as supplied D(nom)mm	After recovery d(max.)	As supplied (nom)	After recovery (min.)	
(INCH SIZE)					
3/64''	1.4	0.58	0.10	0.203	200
1/16''	1.8	0.79	0.10	0.203	100
3/32''	2.6	1.17	0.12	0.229	100
1/8''	3.4	1.57	0.12	0.229	100
3/16''	5.0	2.36	0.12	0.229	1.2
¼''	6.6	3.18	0.14	0.279	1.2
3/8''	10.1	4.75	0.14	0.279	1.2
½''	13.3	6.35	0.14	0.279	1.2
¾''	20.1	9.53	0.18	0.356	1.2
1''	26.6	12.7	0.20	0.406	1.2

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : CLEAR
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : On spools & IN 1.2 MTR CUT LENGTH
Ordering description : Specify product name, size, and color [for example, GSHS 1675 – 0.10 T X 3/64'']

GSHS 3635

FLEXIBLE, FLAME-RETARDANT POLYOLEFIN HIGH SHRINK RATIO 600V, 135^{O} C, 3:1

Polychem Products

Applications

GSHS-3635 is a flexible, High shrink ratio flame-retardant, heat-resistant, heat-shrinkable polyolefin tube. It is needed to cover large size difference like harness with installed connectors. Also ideal for light-duty harnessing, jacketing and identification of wires, cables and electrical and electronic components.

Features

- Shrink Ratio : 67% or more in the radial direction
  10% in the axial direction
- Continuous operation temperature :-55^{o}C to 135^{o}C
- Flammability : UL VW-1, CSA OFT, -F-MARK
- Excellent electrical properties.
- High resistance to chemicals and oils.

SPECIFICATION VALUES

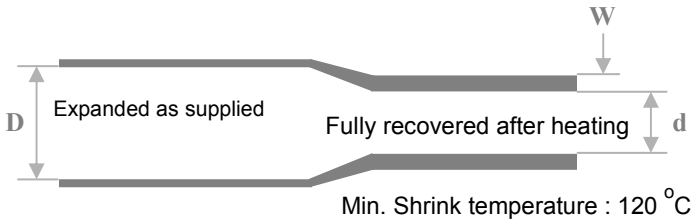
		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 200%
	Aged	Tensile Strength Elongation	158^{o}C/168 hrs	Min. 75% of the Value of unaged specimens Min. 100%
	Deformation		158^{o}C/1 hr	Max. 50%
	Heat shock		250^{o}C/4 hrs	No crack
	Cold bend		-55^{o}C/4 hrs	No crack
	Flexibility		158^{o}C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158^{0}C/168 hrs	No corrosion
	Copper Stability		158^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

GSHS-3635

Polychem Products

FLEXIBLE, FLAME-RETARDANT POLYOLEFIN HIGH SHRINK RATIO 600V, 135^{O} C, 3:1

Product Dimensions



SIZE (Diameter)	Inside Diameter		Wall Thickness-W(mm)		STANDARD LENGTH (m)
	as supplied D(mm)	After recovery d(max.)	As supplied (nom)	After recovery (min.)	
(METRIC SIZE)					
1.5	1.8	0.50	0.23	0.40	200
3	3.2	1.0	0.26	0.50	200
6	6.2	2.00	0.27	0.59	100
9	9.3	3.00	0.28	0.68	50
12	12.3	4.00	0.28	0.68	50
18	18.5	6.00	0.41	0.77	50
24	25	8.00	0.45	0.90	50
38	39	13.00	0.50	1.04	31

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black (other colors are available on request).
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : On spools
Ordering description : Specify product name, size, and color [for example, GSHS 3635 –1.5mm blk]

GSHS 3635W

DUAL-WALL,FLAME-RETARDANT POLYOLEFIN HIGH SHRINK RATIO 600V, 135^{O} C, 3:1

Polychem Products

Applications

GSHS-3635W is designed for all general purpose applications such as the insulations and strain relief of electrical connections and termination , light duty harnessing , jacketing, bundling and color coding of wires. Few sizes cover a vide range of diameters, allowing reduce inventory and this tubing easily accommodate awkward, irregular shapes.

Features

- Shrink Ratio : 67% or more in the radial direction
  10% in the axial direction
- Continuous operation temperature :-55^{o}C to 135^{o}C
- Flammability : UL VW-1, CSA OFT (Jacket Only)
- Excellent electrical properties.
- High resistance to chemicals and oils.
- Minimum Shrink Temparature: 90^{0} C

SPECIFICATION VALUES

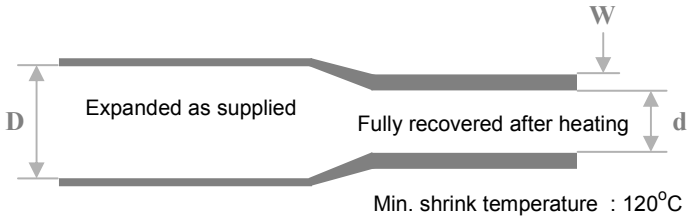
		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^{2} Min 200%
	Aged	Tensile Strength Elongation	158^{o}C/168 hrs	Min. 75% of the Value of unaged specimens Min. 100%
	Deformation		158^{o}C/1 hr	Max. 50%
	Heat shock		250^{o}C/4 hrs	No crack
	Cold bend		-55^{o}C/4 hrs	No crack
	Flexibility		158^{o}C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^{2}
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158^{o}C/168 hrs	No corrosion
	Copper Stability		158^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

GSHS-3635W

Polychem Products

DUAL-WALL,FLAME-RETARDANT POLYOLEFIN HIGH SHRINK RATIO 600V, 135^{O} C, 3:1

Product Dimensions



SIZE (Diameter)	Inside Diameter		W(mm) Wall Thickness		STANDARD LENGTH (m)
	as supplied (D) (mm)	After recovery (max.)(d)	As supplied (nom)	After recovery (min.)	
(METRIC SIZE)					
3.0	3.2	1.00	0.53	1.0	1.2
6.0	6.2	2.00	0.45	1.20	1.2
9.0	9.6	3.00	0.50	1.30	1.2
12.0	12.6	4.00	0.55	1.50	1.2
19.0	20.0	6.00	0.77	2.00	1.2
24.0	25.0	8.00	0.78	2.20	1.2
38.0	39.0	13.0	0.76	2.30	1.2
50.0	50.0	17.0	0.85	2.50	1.2
75.0	75.0	25.0	0.90	2.50	1.2
100.0	100.0	34.0	0.95	2.50	1.2

Due to contiuous product development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black (other colors are available on request).
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : 1.2 Mtrs in cut length
Ordering description : Specify product name, size, and color [for example, GSHS 3635W – 3.0 mm blk]

Polychem Products

BUS BAR TUBING

Applications

Bus Bar insulation tubings can be used for both copper and aluminum bus bars of rectangular and circular cross section

Typical Features

- Avoid short circuit fault caused by small animals such as mice, snakes and so on.
- Prevent bus bar from chemical corrosion effected by strong acid, alkali, salt etc.
- Avoid accidental injure, for instance, that overhaul person enters electric ferous clearance by mistakes.
- Be suit to the trend of smaller switch cabinets.
- Be applied in bus duct for insulation among buses.

PROPERTY

ITEM	VALUE
Volume Resistivity	4.3 X 10^{14} Q.CM
Dielectric Strength	> 2KV/mm
Withstand Voltage	42KV, 1 Min
Peak Voltage	> 75KV Peak
Flame Retardance Test	PASS

Polychem Products

DIMENSIONS

BUS BAR TUBING

APPLICATION FOR 1KV

Part No.	Width of Bus Bar (mm)	As Supplied (mm)		After Recovered (mm)	
		I. D	W . T	I. D	W. T
35	35	35	0. 8 ± 0.2	15	1. 2 ± 0.2
40	40	40	0. 8 ± 0.2	21	1. 2 ± 0.2
50	50	50	0. 8 ± 0.2	27	1. 3 ± 0.2
60	60	60	0. 8 ± 0.2	32	1. 3 ± 0.2
70	80	70	0. 8 ± 0.2	32	1. 5 ± 0.2
80	80/ 100	80	0. 8 ± 0.2	43	1. 5 ± 0.2
90	100	90	0. 8 ± 0.2	43	1. 5 ± 0.2
100	100/ 120	100	0. 8 ± 0.2	43	1. 5 ± 0.2
120	150	120	0. 8 ± 0.2	56	1. 5 ± 0.2
150	180	150	0. 8 ± 0.2	69	1. 5 ± 0.2

APPLICATION FOR 10 KV

Part No.	Width of Bus Bar (mm)	As Supplied (mm)		After Recovered (mm)	
		I. D	W . T	I. D	W. T
20	20	20	1. 0 ± 0. 2	9	2. 2 ± 0. 2
30	30	30	1. 0 ± 0. 2	13	2. 2 ± 0. 2
40	40	40	1. 2 ± 0. 2	15	2. 2 ± 0. 2
50	50	50	1. 2 ± 0. 2	20	2. 5 ± 0. 2
65	80	60	1. 2 ± 0. 2	24	3. 0 ± 0. 2
80	80/100	80	1. 2 ± 0. 2	32	3. 0 ± 0. 2
100	120	100	1. 2 ± 0. 2	40	3. 0 ± 0. 2
120	150	120	1. 2 ± 0. 2	48	3. 0 ± 0. 2
150	200	150	1. 2 ± 0. 2	61	3. 5 ± 0. 2
180	Max.	180	1. 2 ± 0. 2	61	3. 5 ± 0. 2
200	Max.	200	1. 2 ± 0. 2	80	3. 5 ± 0. 2

Polychem Products

BUS BAR TUBING

DIMENSIONS

APPLICATION FOR 35 KV

Part No.	Width of Bus Bar (mm)	As Supplied (mm)		After Recovered (m m)	
		I. D	W . T	I. D	W. T
30	30	30	2. 0 ± 0. 3	13	4. 0 ± 0. 3
40	40	40	2. 0 ± 0. 3	15	4. 0 ± 0. 3
50	50	50	2. 2 ± 0. 3	20	4. 5 ± 0. 3
65	80	60	2. 2 ± 0. 3	24	4. 5 ± 0. 3
80	80/100	80	2. 2 ± 0. 3	32	4. 5 ± 0. 3
100	120	100	2. 5 ± 0. 3	40	4. 5 ± 0. 3
12	150	120	2. 5 ± 0. 3	48	5. 0 ± 0. 3
150	200	150	2. 5 ± 0. 3	61	5. 0 ± 0. 3
180	Max.	180	2. 8 ± 0. 3	61	5. 5 ± 0. 3
200	Max.	200	2. 8 ± 0. 3	80	5. 5 ± 0. 3

Due to continuous productdevelopment specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage. Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : yellow[YL], red[RD], green[GN].
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : 1 mtr in cut length
Ordering description : Specify product name, size, and color.

Polychem Products

BUS BAR TAPE

SIZE	COLOR	PACKING in roll
25 mm	RED	5 MTRS
50 mm	RED	5 MTRS

GSHS 1625LT

VERY FLEXIBLE, FLAME-RETARDANT POLYOLEFIN 600V, 125° C, 2:1

Polychem Products

Applications

GSHS-1625LT is a very flexible, flame-retardant low temperature heat –shrinkable polyolefin tube. It is designed for a vide range of applications specially required rapid shrinking, including insulation for electric & electronic devices, wire strain relief and protective covering for parts such as resistors and capacitors.

Features

- Shrink Ratio : 50% or more in the radial direction
  7% in the axial direction
- Continuous operation temperature :-55°C to 125°C
- Flammability : UL VW-1, CSA OFT, -F-MARK
- Low temperature shrinking.
- High resistance to chemicals and oils.

SPECIFICATION VALUES

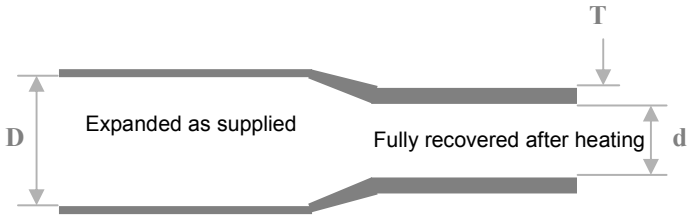
		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 200%
	Aged	Tensile Strength Elongation	158°C/168 hrs	Min. 70% of the Value of unaged specimens Min. 100%
	Deformation		125°C/1 hr	Max. 50%
	Heat shock		136°C/1 hr	No crack
	Cold bend		-30°C/1 hr	No crack
	Flexibility		158°C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158°C/168 hrs	No corrosion
	Copper Stability		158°C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

STANDARD

UL 224 (File No.:E84393) CSA C22.2 (File No.: LR55659)

Polychem Products

GSHS-1625LT
VERY **FLEXIBLE, FLAME-RETARDANT POLYOLEFIN**
600V, 125^{O} C, 2:1



Product Dimensions

SIZE	D(Nom.) Inside Diameter of expanded as supplied (mm)	d(Max.) Inside Diameter of Recovered after heating (mm)	T(Min.) Wall thickness of Recovered after heating (mm)	STANDARD LENGTH (M)
0(METRIC SIZE)				
0.20 T X 1.5	1.9	0.75	0.356	200
0.25 T X 2.0	2.3	1.00	0.432	200
0.25 T X 2.5	2.8	1.25	0.432	200
0.25 T X 3.0	3.3	1.50	0.4.32	200
0.25 T X 3.5	3.8	1.75	0.432	200
0.25 T X 4.0	4.3	2.00	0.432	200
0.25 T X 5.0	5.3	2.50	0.559	100
0.25 T X 6.0	6.3	3.00	0.559	100
0.25 T X 7.0	7.6	3.50	0.559	100
0.25 T X 8.0	8.6	4.00	0.559	100
0.25 T X 9.0	9.6	4.5	0.599	100
0.25 T X 10.0	10.6	5.00	0.559	100
0.25 T X 11.0	11.6	5.50	0.559	100
0.25 T X 12.0	12.6	6.00	0.559	100
0.30 T X 13.0	13.6	6.50	0.686	50
0.30 T X 14.0	14.6	7.00	0.686	50
0.30 T X 15.0	15.6	7.50	0.686	50
0.30 T X 16.0	16.9	8.00	0.686	50
0.35 T X 18.0	18.9	9.00	0.762	50
0.35 T X 20.0	20.9	10.00	0.762	50
0.40 T X 22.0	22.9	11.00	0.762	50
0.40 T X 24.0	24.9	12.00	0.762	50
0.40 T X 25.0	26.2	12.50	0.864	50
0.40 T X 26.0	27.2	13.00	0.864	50
0.40 T X 28.0	29.2	14.00	0.864	50
0.40 T X 30.0	31.2	15.00	0.864	50
0.40 T X 32.0	33.2	16.00	0.864	50
0.43 T X 38.0	39.0	19.00	0.864	31

Due to continuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black, White, Yellow, Red, Blue, Green, Gray, Brown & Violet Clear (Non-flame retardant).
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : On spools.
Ordering description : Specify product name, size, and color [for example, GSHS-1625-0.25Tx6mm-Black]

Polychem Products

GSHS 1625T

HIGHLY FLEXIBLE, FLAME-RETARDANT THIN-WALL POLYOLEFIN 150V, 125^{O} C, 2:1

Applications

GSHS-1625T is a very flexible, flame-retardant, thin-wall heat –shrinkable polyolefin tube. It is designed for rapid shrinking and greater packaging density including insulation for electric & electronic devices, wire strain relief and protective covering for parts such as resistors and capacitors.

Features

- Shrink Ratio : 50% or more in the radial direction
  7% in the axial direction
- Continuous operation temperature :-55^{o}C to 125^{o}C
- Flammability : UL VW-1, CSA OFT, -F-MARK
- Excellent electrical properties.
- High resistance to chemicals and oils.

SPECIFICATION VALUES

		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 200%
	Aged	Tensile Strength Elongation	158^{o}C/168 hrs	Min. 70% of the Value of unaged specimens Min. 100%
	Deformation		125^{o}C/1 hr	Max. 50%
	Heat shock		136^{o}C/1 hr	No crack
	Cold bend		-30^{o}C/1 hr	No crack
	Flexibility		158^{o}C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158^{0}C/168 hrs	No corrosion
	Copper Stability		158^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

STANDARD

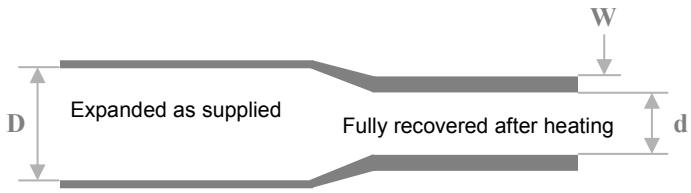
UL 224 (File No.:E84393) CSA C22.2 (File No.: LR55659)

GSHS-1625T

HIGHLY **FLEXIBLE, FLAME-RETARDANT THIN-WALL POLYOLEFIN 150V, 125^{O} C, 2:1**

Polychem Products

Product Dimensions



SIZE	D(Nom.) Inside Diameter of expanded as supplied (mm)	d(Max.) Inside Diameter of Recovered after heating (mm)	W(Min.) Wall thickness Of Recovered after heating (mm)	STANDARD LENGTH (M)
(METRIC SIZE)				
0.10 T X 1. 0	1. 3	0. 50	0. 180	200
0.10 T X 1. 5	1. 8	0. 75	0. 180	200
0.10 T X 2. 0	2. 3	1. 00	0. 180	200
0.15 T X 2. 5	2. 8	1. 25	0. 250	200
0.15 T X 3. 0	3. 2	1. 50	0. 250	100
0.15 T X 3. 5	3. 8	1. 75	0. 250	100
0.15 T X 4. 0	4. 5	2. 00	0. 250	100
0.15 T X 5. 0	5. 5	2. 50	0. 250	100
0.15 T X 6. 0	6. 5	3. 00	0. 250	100

Due to continuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : On spools.
Ordering description : Specify product name, size, and color [for example, GSHS-1625T-0.10Tx1.5mm-Black]

GSHS 1625G

Polychem Products

FLEXIBLE,NON-TOXIC, FLAME- RETARDANT POLYOLEFIN 600V, 125^{O} C, 2:1

Applications

GSHS-1625G is a flexible, non-toxic, flame-retardant low temperature heat –shrinkable polyolefin tube. It is designed for the environment protection tube which does not contain any brominated flame-retardant chemicals and it is used for a wide range of applications such as insulation and protective covering

Features

- Shrink Ratio : 50% or more in the radial direction
  7% in the axial direction
- Continuous operation temperature :-55^{o}C to 125^{o}C
- Flammability : UL VW-1, CSA OFT, -F-MARK
- Environment protection tube
- Excellent electrical properties
- High resistance to chemicals and oils.

SPECIFICATION VALUES

		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 200%
	Aged	Tensile Strength Elongation	158^{o}C/168 hrs	Min. 70% of the Value of unaged specimens Min. 100%
	Deformation		125^{o}C/1 hr	Max. 50%
	Heat shock		136^{o}C/1 hr	No crack
	Cold bend		-30^{o}C/1 hr	No crack
	Flexibility		158^{o}C/168 hrs	No cracks
	Secant modulus		-	Max. 17.64kgf/mm^2
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{14} Q – cm
Chemical	Copper corrosion		158^{o}C/168 hrs	No corrosion
	Copper Stability		158^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

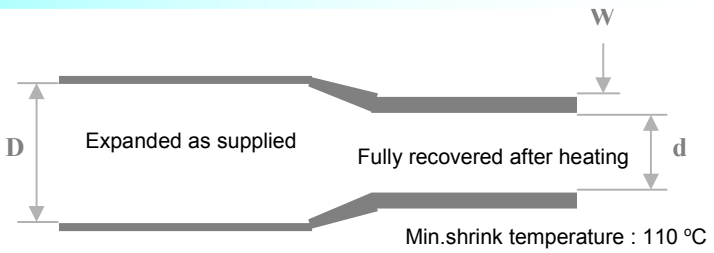
STANDARD

UL 224 (File No.:E84393) CSA C22.2 (File No.: LR55659)

Polychem Products

GSHS 1625G

FLEXIBLE,NON-TOXIC, FLAME- RETARDANT POLYOLEFIN 600V, 125^{O} C, 2:1



Product Dimensions

SIZE	D(Nom.) Inside Diameter of expanded as supplied (mm)	d(Max.) Inside Diameter of Recovered after heating (mm)	W(Min.) Wall thickness Of Recovered after heating (mm)	STANDARD L ENGTH (M)
0(METRIC SIZE)				
0.20 T X 1.5	1.9	0.75	0.356	200
0.25 T X 2.0	2.3	1.00	0.432	200
0.25 T X 2.5	2.8	1.25	0.432	200
0.25 T X 3.0	3.3	1.50	0.4.32	200
0.25 T X 3.5	3.8	1.75	0.432	200
0.25 T X 4.0	4.3	2.00	0.432	200
0.25 T X 5.0	5.3	2.50	0.559	100
0.25 T X 6.0	6.3	3.00	0.559	100
0.25 T X 7.0	7.6	3.50	0.559	100
0.25 T X 8.0	8.6	4.00	0.559	100
0.25 T X 9.0	9.6	4.5	0.599	100
0.25 T X 10.0	10.6	5.00	0.559	100
0.25 T X 11.0	11.6	5.50	0.559	100
0.25 T X 12.0	12.6	6.00	0.559	100
0.30 T X 13.0	13.6	6.50	0.686	50
0.30 T X 14.0	14.6	7.00	0.686	50
0.30 T X 15.0	15.6	7.50	0.686	50
0.30 T X 16.0	16.9	8.00	0.686	50
0.35 T X 18.0	18.9	9.00	0.762	50
0.35 T X 20.0	20.9	10.00	0.762	50
0.40 T X 22.0	22.9	11.00	0.762	50
0.40 T X 24.0	24.9	12.00	0.762	50
0.40 T X 25.0	26.2	12.50	0.864	50
0.40 T X 26.0	27.2	13.00	0.864	50
0.40 T X 28.0	29.2	14.00	0.864	50
0.40 T X 30.0	31.2	15.00	0.864	50
0.40 T X 32.0	33.2	16.00	0.864	50
0.43 T X 38.0	39.0	19.00	0.864	31

Due to continuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black
Size selection : Always order the largest size that will shrink snugly over the component to be covered.
Standard package : On spools.
Ordering description : Specify product name, size, and color [for example, GSHS-1625G-0.25Tx6mm-Black]

Polychem Products

GSHS 1625W

DUAL-WALL, FLEXIBLE POLYOLEFIN TUBING 600V, 125° C, 2:1

Applications

GSHS-1625W is designed for all general purpose applications such as the insulations and strain relief of electrical connections and termination , light duty harnessing , jacketing, bundling

Features

- Continuous temperature range:-55°C to 125°C
- Flammability : UL VW-1 Level (Outside layer Only)
- Minimum Shrink Temperature: 90° C
- Shrink Ratio : 50% or more in the radial direction

SPECIFICATION VALUES

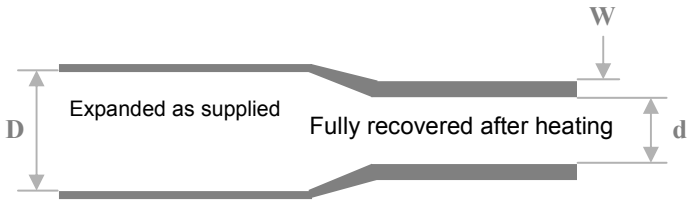
		PROPERTY	TEST METHODS	VALUES
Physical	Density Unaged Aged	 Tensile strength Elongation	ASTM D-792 ASTM D 638 UL 224	Max. 1.40g/ cm^2 @23°C Min. 1.06kgf/mm^2 Min 200%
		Tensile Strength Elongation	ASTM D 638 UL 224 175°C/168 hrs	Min. 75% of the Value of unaged specimens Min. 100%
	Heat shock		MIL-I-23053	Pass @ 250°CX4hrs
	Low Temperature Flexibility		MIL_I_23053	No crack @ -55°C
	Secant modulus		UL 224	Max. 173 MPa
Electrical	Dielectric strength		UL 224	Min. 2500V
	Volume resistivity		Ul 224	Min. 1 X 10 ^{14} Q– cm
Chemical	Copper corrosion		ML-I-23053 175°C/168 hrs	No corrosion
	Copper Stability Elongation		Ul 224 158°C/168 hrs	No sign of degradation Min. 100%
	Flammability (VW-1)		Ul 224	Pass

Polychem Products

GSHS-1625W

DUAL-WALL,FLEXIBLE POLYOLEFIN TUBING 600V, 125^{O} C, 2:1

Product Dimensions



SIZE (Diameter)	(Nom.) Inside Diameter		W(mm) Wall Thickness		STANDARD LENGTH (m)
	as supplied (D) (mm)	After recovery (d) (max.)	As supplied (nom)	After recovery (min.)	
(METRIC SIZE)					
3.0	3. 0	1. 5	0. 25	0. 43	1. 2
5.0	5. 0	2. 5	0. 50	0. 76	1. 2
7.0	7. 0	3. 5	0. 25	0. 56	1. 2
9.0	9. 0	4. 5	0. 25	0. 56	1. 2
12.0	12.0	6. 0	0. 25	0. 56	1. 2
18.0	18.0	9. 0	0. 35	0. 76	1. 2
25.0	25.0	12. 5	0. 40	0. 86	1. 2
38.0	38.0	19. 0	0. 43	0. 86	1. 2

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black

Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : 1.2 Mtrs in cut length

Ordering description : Specify product name, size, and color [for example, GSHS 1625w – 3.0 mm blk]

Polychem Products

GSHS 1635Y/G

YELLOW GREEN STRIPED, FLEXIBLE POLYOLEFIN TUBING 600V, 135^{O} C, 2:1

Applications

GSHS-1635Y/G is designed for all general purpose application such as the insulation and strain relief of electrical connection and termination, light-duty harnessing, jacketing and bundling of wires where the international electrical ground designation is intended.

Features

- Continuous temperature range:-55^{o}C to 135^{o}C
- Flammability : UL VW-1, -F- mark
- Minimum Shrink Temperature: 90^{0} C
- Shrink Ratio : 50% or more in the radial direction

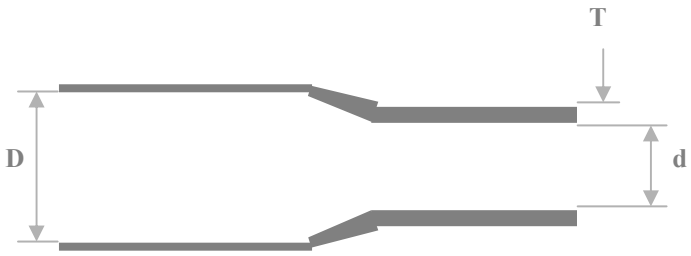
SPECIFICATION VALUES

		PROPERTY	TEST METHODS	VALUES
Physical	Density		ASTM D-792	Max. 1.40g/ cm^2 @23^{o}C
	Unaged	Tensile strength	ASTM D 638	Min. 1.06kgf/mm^2
		Elongation	UL 224	Min 200%
	Aged	Tensile Strength	ASTM D 638	Min. 0.8 kgf/mm^2
		Elongation	UL 224 175^{o}C/168 hrs	Min. 100%
	Heat shock		MIL-I-23053	Pass @ 250^{o}CX4hrs
	Low Temperature Flexibility		MIL-I-23053	No crack @ -55^{o}C
	Secant modulus		UL 224	Max. 173 MPa
Electrical	Dielectric strength		UL 224	Min. 2500V
	Volume resistivity		Ul 224	Min. 1 X 10 ^{14} Q – cm
Chemical	Copper corrosion		ML-I-23053 175^{o}C/168 hrs	No corrosion
	Copper Stability Elongation		Ul 224 158^{o}C/168 hrs	No sign of degradation Min. 100%
	Flammability (VW-1)		Ul 224	Pass

GSHS-1635Y/G

Polychem Products

YELLOW GREEN STRIPED
FLEXIBLE POLYOLEFIN TUBING
600V, 135^{O} C, 2:1



Product Dimensions

SIZE	d(Nom.) Inside Diameter of expanded as supplied (mm)	d(Max.) Inside Diameter of Recovered after heating (mm)	T(Min.) Wall thickness Of Recovered after heating (mm)	STANDARD LENGTH (M)
(METRIC SIZE)				
0. 25 T X 2.5	2. 8	1. 25	0. 432	200
0. 25 T X 3.0	3. 3	1. 50	0. 4.32	200
0. 25 T X 3.5	3. 8	1. 75	0. 432	200
0. 25 T X 4.0	4. 3	2. 00	0. 432	200
0. 25 T X 5.0	5. 3	2. 50	0. 559	100
0. 25 T X 6.0	6. 3	3. 00	0. 559	100
0. 25 T X 7.0	7. 6	3. 50	0. 559	100
0. 25 T X 8.0	8. 6	4. 00	0. 559	100
0. 25 T X 9.0	9. 6	4. 50	0. 599	100
0. 25 T X 10.0	10. 6	5. 00	0. 559	100
0. 25 T X 11.0	11. 6	5. 50	0. 559	100
0. 25 T X 12.0	12. 6	6. 00	0. 559	100
0. 30 T X 13.0	13. 6	6. 50	0. 686	100
0. 30 T X 14.0	14. 6	7. 00	0. 686	100
0. 30 T X 15.0	15. 6	7. 50	0. 686	50
0. 35 T X 16.0	16. 9	8. 00	0. 686	50
0. 35 T X 18.0	18. 9	9. 00	0. 762	50
0. 35 T X 20.0	20. 9	10.00	0. 762	50
0. 40 T X 22.0	22. 9	11.00	0. 762	50
0. 40 T X 24.0	24. 9	12.00	0. 762	50
0. 40 T X 25.0	26. 2	12.50	0. 864	50
0. 40 T X 26.0	27. 2	13.00	0. 864	50
0. 40 T X 28.0	29. 2	14.00	0. 864	50
0. 40 T X 30.0	31. 2	15.00	0. 864	50
0. 40 T X 32.0	33. 2	16.00	0. 864	50
0. 43 T X 38.0	39.0	19.00	0. 864	50

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Yellow / Green
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : On spools.
Ordering description : Specify product name, size, and color [for example, GSHS 1635Y/G – 0.25 T X 3.5mm

PHWT

Polychem Products

ADHESIVE-LINED HEAVY WALL POLYOLEFIN TUBING

Applications

PHWT is designed for insulating and sealing cable splices, electrical connections, jacket repairs and terminations. Ideally suited for submersible, direct-buried installations, or wherever mechanical protection is required in an electrical insulation system.

Features

- Operating temperature range:-55^{o}C to 125^{o}C
- Minimum Shrink Temperature: 120^{0} C
- Shrink Ratio : 67% or more in the radial direction

SPECIFICATION VALUES

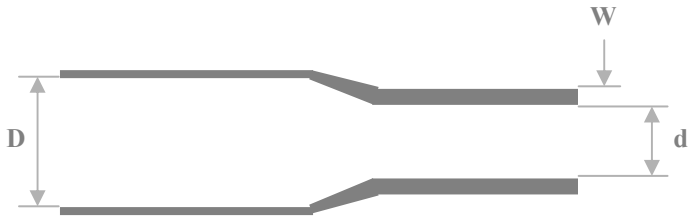
		PROPERTY	TEST METHODS	VALUES
Physical	Density		ASTM D-792	Max. 1.10g/ cm^2 @23^{o}C
	Unaged	Tensile strength	ASTM D 638	Min. 1.4 kgf/mm^2
		Elongation	ISO 37	Min. 350%
	Aged	Tensile Strength	ASTM D 638 ISO 37	Min. 1.2 kgf/mm^2
		Elongation	150^{o}C/168 hrs	Min. 300%
	Low Temperature Flexibility		ASTM D 2671	No crack @ -55^{o}CX4 hrs
	Heat shock		ASTM D 2671	No crack@ 225^{o}C4hrs
	Thermal endurance		IEC 216	120^{o}C
Electrical	Dielectric strength		IEC 243	Min. 20 kV/mm
	Volume resistivity		IEC 93	Min. 1 X 10 ^{13} Q – cm
Chemical	Water absorption		ISO 62	Max 0.1% @23^{o}C X14 days
	Resistance to Fungi Elongation		ASTM G 21 ISO 37	Pass rating 1 Min. 300%
	Fluid resistance Elongation		ISO 1817 ISO 37	7 days in transformer oil Min. 300%

PHWT

Polychem Products

ADHESIVE LINED HEAVY WALL POLYOLEFIN TUBING

Product Dimensions



SIZE (Diameter)	Inside Diameter		W(mm) Wall Thickness		STANDARD LENGTH (m)
	as supplied D(mm)	After recovery d(max.)	As supplied (nom)	After recovery (min.)	
(METRIC SIZE)					
9.0	9.0	3.0	0.70	1.80	1. 2
13.0	13.0	4.0	0.80	2.40	1. 2
20.0	20.0	6.0	0.80	2.40	1. 2
33.0	33.0	8.0	1.00	3.00	1. 2
43.0	43.0	12.0	1.30	4.10	1. 2
51.0	51.0	16.0	1.30	4.10	1. 2
70.0	70.0	21.0	1.30	4.10	1. 2
85.0	85.0	25.0	1.30	4.10	1. 2
90.0	90.0	30.0	1.30	4.10	1.2
130.0	130.0	36.0	1.30	4.20	1.2
160.0	160.0	50.0	1.40	4.50	1.2
180.0	180.0	50.0	1.40	4.50	1.2

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : 1.2 Mtrs in cut length
Ordering description : Specify product name, size, and color [for example,: PHWT 0.80Tx13mm Black

Polychem Products

PMWT

ADHESIVE-LINED MEDIUM WALL POLYOLEFIN TUBING

Applications

PMWT is designed for insulating and sealing cable splices, electrical connections, jacket repairs and terminations. Ideally suited for submersible, direct-buried installations, or wherever mechanical protection is required in an electrical insulation system.

Features

- Operating temperature range:-55°C to 125°C
- Minimum Shrink Temperature: 120^0 C
- Shrink Ratio : 67% or more in the radial direction

SPECIFICATION VALUES

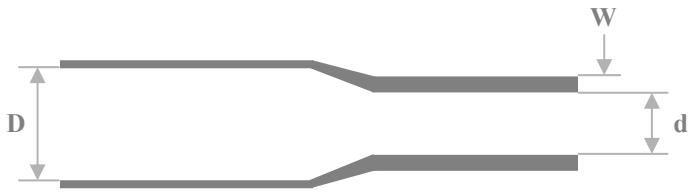
		PROPERTY	TEST METHODS	VALUES
Physical	Density		ASTM D-792	Max. 1.10g/ cm^2 @23^{0}C
	Unaged	Tensile strength	ASTM D 638	Min. 1.4 kgf/mm^2
		Elongation	ISO 37	Min. 350%
	Aged	Tensile Strength	ASTM D 638 ISO 37 150°C/168 hrs	Min. 1.2 kgf/mm^2
		Elongation		Min. 300%
	Low Temperature Flexibility		ASTM D 2671	No crack @ -55^{0}CX4 hrs
	Heat shock		ASTM D 2671	No crack@ 225^{0}C4hrs
	Thermal endurance		IEC 216	120^{0}C
Electrical	Dielectric strength		IEC 243	Min. 20 kV/mm
	Volume resistivity		IEC 93	Min. 1 X 10 ^{13} Q – cm
Chemical	Water absorption		ISO 62	Max 0.1% @23^{0}C X14 da ys
	Resistance to Fungi Elongation		ASTM G 21 ISO 37	Pass rating 1 Min. 300%
	Fluid resistance Elongation		ISO 1817 ISO 37	7 days in transformer oil Min. 300%

PMWT

Polychem Products

ADHESIVE LINED MEDIUMWALL POLYOLEFIN TUBING

Product Dimensions



SIZE (Diameter)	Inside Diameter		W(mm) Wall Thickness		STANDARD LENGTH (m)
	as supplied D(mm)	After recovery d(max.)	As supplied (nom)	After recovery (min.)	
(METRIC SIZE)					
10.0	10.0	3.0	0.40	1.00	1. 2
16.0	16.0	5.0	0.50	1.50	1. 2
25.0	25.0	8.0	0.70	2.00	1. 2
35.0	35.0	12.0	0.70	2.00	1. 2
50.0	50.0	16.0	0.70	2.00	1. 2
63.0	63.0	19.0	0.80	2.50	1. 2
75.0	75.0	22.0	0.90	3.00	1. 2
85.0	85.0	25.0	0.90	3.00	1. 2
95.0	95.0	29.0	1.00	3.30	1.2
115.0	115.0	34.0	1.00	3.30	1.2
140.0	140.0	42.0	1.00	3.50	1.2
160.0	160.0	50.0	1.00	3.50	1.2
180.0	180.0	60.0	1.00	3.50	1.2

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black
Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : 1.2 Mtrs in cut length
Ordering description : Specify product name, size, and color [for example,: PMWT 0.50Tx16mm Black

DRET

Polychem Products

DIESEL-RESISTANT, FLEXIBLE, ELASTOMERIC POLYOLEFIN TUBING

Applications

DRET is used for insulation, strain relief and abrasion protection on cable harnesses and wire bundles in military industries. Especially, provides fluids and solvent resistance including lubricating oil ground-vehicle fuels and hydraulic fluids.

Typical Features

- Operating temperature range:- -75°C to 120°C
- Flammability : Mil-I-23053/16 Rated
- Minimum Shrink Temperature: 135° C
- Shrink Ratio : 50% or more in the radial direction

SPECIFICATION VALUES

		PROPERTY	TEST METHODS	VALUES
	Density		ASTM D-792	Max. 1.10g/ cm^2 @23°C
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.1 kgf/mm^2 Min. 250%
	Aged	Tensile Strength Elongation	ASTM D 638 150°C/168 hrs	Min. 0.8 kgf/mm^2 Min. 200%
	Low Temperature Flexibility		MIL-I-23053	No crack @ -75°C
	Heat shock		MIL-I-23053	Pass @ 200°C x 4 hrs
Electrical	Dielectric strength		ASTM D 876	Min. 300 V/mil
	Volume resistivity		ASTM D 876	Min. 1 X 10^{11} Q – cm
Chemical	Copper corrosion		MIL-I-23053 150°C/16 hrs	No corrosion
	Fluid resistance Tensile strength Elongation Dielectric Strength		MIL-I-23053 23°C/24 hrs	Min. 1.1kgf/mm^2 Min. 200% Min. 200V/mil
	Flammability		MIL-I-23053	Pass

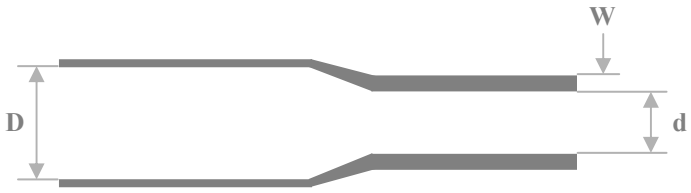
Standards
MIL-I-23053/16

DRET

Polychem Products

DIESEL-RESISTANT,FLEXIBLE, ELASTOMERIC POLYOLEFIN TUBING

Product Dimensions



SIZE (Diameter)	Inside Diameter		W(mm) Wall Thickness		STANDARD LENGTH (m)
	as supplied D(mm)	After recovery d(max.)	As supplied (nom)	After recovery (min.)	
INCH SIZE					
1/8	3.2	1.57	0.45	070	200
3/16	4.8	2.36	0.45	0.75	100
¼	6.4	3.18	0.45	0.80	100
3/8	9.6	4.75	0.50	0.90	50
½	12.7	6.35	0.60	1.05	50
¾	19.1	9.53	0.70	1.45	50
1	25.4	12.70	0.85	1.70	50
1-1/4	31.8	15.90	1.00	2.20	31
1-1/2	38.1	19.10	1.10	2.45	31
2	50.8	25.40	1.30	2.85	31
3	76.2	38.10	1.50	3.20	31

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

Ordering Information

Standard colors : Black

Size selection : Always order the largest size that will shrink snugly over the component to be covered.

Standard package : 1.2 Mtrs in cut length

Ordering description : Specify product name, size, and color [for example,: DRET0.45Tx1/8” Black

Polychem Products

HFSP

Heat Shrinkable Fiber Optic Splice Protector

Features :

- Consist of crosslinked polyolefin, hot fusion tubing and stainless reinforcing steel rod
- Keep optic transmission properties of optical fiber
- Provide strength and protection to optical fiber splices
- Easily use and avoid any damages to the optical fiber during installation
- Clear sleeve make it easy to detect splice before shrinkage
- Sealing structure make the splice free from effect of temperature and humidity from environment

Operating Temperature

-55 - 60 °C

Shrinking temperature range

90 – 110 °C

Technical Data

Properties	Test method	Typical Data
Tensile Strength (MPa)	ASTM D 2671	18
Ultimate Elongation (%)	ASTM D 2671	700
Density (g/cm^2)	ISO R 1183D	0.94
Dielectric Strength (KV/mm)	IEC 243	20
Dielectric Constant	IEC 243	2.5
Longitudinal Change (%)	ASTM D 2671	$\pm$ 5

Order Ref.No.	Length L	I.D of fusion tube D	Steel Rod D d	O.D of splice protector after recovered
	(mm)	(mm)	(mm)	(mm)
HFSP-61	61	1.3 $\pm$ 0.1	1.5	</= 3.00
HFSP-45	45	1.3 $\pm$ 0.1	1.5	</= 3.00
HFSP-23	23	1.3 $\pm$ 0.1	1.5	</= 3.00
HFSP-45T	45	1.2 $\pm$ 0.1	1.2	</= 2.60
HFSP-23M	23	0.5 $\pm$ 0.1	0.5	</= 1.35
HFSP-40M	40	1.2 $\pm$ 0.1	0.5	1.9--2.0

Packing

100 Pieces/Bag

Polychem Products

FUSION TUBE

Features

- one of the components from HSFP is called FUSION TUBE
- Also called as EVA TUBE (Ethylene Vinyl Acetate)

Product Dimensions

Outside Diameter	Inside Diameter	Packing (roll)
1.7 mm	1.5 mm	200 mtrs
0.9 mm	0.5 mm	200 mtrs
2.3 mm	1.3 mm	200 mtrs
2.9 mm	1.9 mm	200 mtrs

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage. Other lengths and sizes are available subject to special order.

Polychem Products

END CAPS

Features

Specifications

Order Ref. No.	Inside Diameter (mm)		Length (mm)	Wall thickness after shrinking
	As supplied	After recovered		
RSF – 1	25	9	90	2.3 mm
RSF – 2	30	15	100	2.6 mm
RSF – 3	40	25	120	3.4 mm
RSF – 4	70	38	130	2.7 mm
RSF – 5	80	45	150	3.5 mm
RSF – 6	120	70	170	3.5 mm

Due to contiuous development specification are subject to change. Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage. Other lengths and sizes are available subject to special order.

Polychem Products

Heat Shrinkable Silicone Rubber Tube

Product Dimensions

SIZE	Range of Application	Inside Dia		Wall Thickness	
		As supplied	After recovery	As supplied	After recovery
1.5	1.1~1.4	1.7 ± 0.2	0.8 ± 0.1	0.5 ± 0.1	1.0 ± 0.2
2.0	1.2~2.0	2.2 ± 0.2	0.8 ± 0.1	0.5 ± 0.1	1.0 ± 0.2
3.0	1.8~2.5	3.2 ± 0.2	1.6 ± 0.1	0.5 ± 0.1	1.0 ± 0.2
4.0	2.3~4.0	4.5 ± 0.3	2.2 ± 0.1	0.5 ± 0.1	1.0 ± 0.2
5.0	2.8~5.0	5.6 ± 0.3	2.9 ± 0.2	0.5 ± 0.1	1.0 ± 0.2
6.0	3.2~6.0	6.6 ± 0.3	3.3 ± 0.2	0.5 ± 0.1	1.0 ± 0.2
8.0	4.5~7.0	8.6 ± 0.4	4.3 ± 0.2	0.5 ± 0.1	1.0 ± 0.2
12.0	6.0~10.0	12.0 ± 1.0	6.0 ± 0.2	0.75 ± 0.1	1.5 ± 0.2
17.0	9.0~15.0	17.0 ± 1.0	9.0 ± 0.2	0.75 ± 0.1	1.5 ± 0.2
20.0	15.0~23.0	23.0 ± 1.0	12.0 ± 0.4	1.0 ± 0.1	2.0 ± 0.3
25.0	18.0~28.0	25.0 ± 1.0	14.0 ± 0.4	1.0 ± 0.1	2.0 ± 0.3
30.0	25.0~42.0	31.0 ± 1.0	16.0 ± 0.5	1.0 ± 0.1	2.0 ± 0.3
45	33.0~50.0	45.0 ± 1.0	23.0 ± 1.0	1.0 ± 0.1	3.0 ± 0.3
55	40.0~60.0	55.0 ± 2.0	29.0 ± 1.0	1.5 ± 0.1	3.0 ± 0.3
65	40.0~60.0	66.0 ± 2.0	35.0 ± 1.0	1.5 ± 0.1	3.0 ± 0.3
80	50.0~65.0	80.0 ± 2.0	42.0 ± 1.0	1.5 ± 0.2	3.0 ± 0.3
90	60.0~80.0	90.0 ± 2.0	47.0 ± 1.0	1.5 ± 0.2	3.0 ± 0.3
110	70.0~90.0	110.0 ± 2.0	58.0 ± 2.0	1.5 ± 0.2	3.0 ± 0.3
150	90.0~130.0	155.0 ± 2.0	80.0 ± 2.0	1.5 ± 0.2	3.0 ± 0.3
180	110~150.0	185.0 ± 2.0	100.0 ± 2.0	1.5 ± 0.2	3.0 ± 0.3
200	130~190.0	210.0 ± 2.0	120.0 ± 2.0	1.5 ± 0.2	3.0 ± 0.3
250	160~240.0	260.0 ± 2.0	130.0 ± 2.0	5 ± 0.2	3.0 ± 0.3

Due to contiuous product development specification are subject to change.
Users are requested to evaluate the products independently. The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.
Other lengths and sizes are available subject to special order.

CATV

ADHESIVE-LINED
HEAVY WALL POLYOLEFIN TUBINGS

Applications

CATV is designed for fast and simple installation allowing clean and easy connector re-en try. Especially, high performance adhesive provides an absolutely waterproof seal and me chanical protection for the CATV industry.

Typical Features

Operating Temperature : -55 ^{0}C to 125 ^{0}C
Mimimum Shrink Temperature : 120 ^{o}C
Shrink ration : 67% or more in the radial direction

Specification Values

PROPERTY			TEST METHODS	VALUES
Physical	Density		ASTM D-792	Max. 1.20g/ cm^2 @23^{0}C
	Unaged	Tensile strength	ASTM D 638	Min. 1.1 kgf/mm^2
		Elongation		Min. 300%
	Aged	Tensile Strength	UL 224 150^{o}C/168 hrs	Min. 0.8 kgf/mm^2
		Elongation		Min. 200%
	Heat Shock		ASTM D 2671	No crack @225^{0}C x 4 hrs
	Adhesive peel strength to Polyethylene Aluminum		 ASTM D 1000 ASTM D 1000	 110N / 25mm 80 N / 25 mm
Electrical	Low temperature flexibility		ASTM D 2671	No crack @ -55 ^{o}C X 4hrs
Chemical	Dielectric Strength		ASTM D 149	Min. 13.8kV/mm
	Volume resistivity		ASTM D 257	Min 1x10^{14} Ω -cm
	Water absorption		ASTM D 570 23^{O}C/24 hrs	Max. 0.1%
	Water penetration		50 oC x 14 days	No penetration

CATV

ADHESIVE-LINED
HEAVY WALL POLYOLEFIN TUBINGS

Product Dimensions

SIZE (Diameter)		D(mm) Inside Diameter		W(mm) Wall Thickness		Standard Length (m)
		As supplied (min)	After recovery (Max)	As supplied (nom)	After recovery (min)	
METRIC SIZE	10.0	10.0	3.0	0.70	1.50	1.2
	19.0	19.0	6.0	0.60	1.50	1.2
	27.0	27.0	9.0	1.10	2.70	1.2
	33.0	33.0	9.0	1.00	2.70	1.2
	38.0	38.0	13.0	1.20	3.00	1.2
	43.0	43.0	13.0	1.10	3.00	1.2
	51.0	51.0	18.0	1.20	3.00	1.2
	70.0	70.0	25.0	1.60	3.90	1.2

Ordering Information

Standard Color : Black
Ordering Description : Specify Product name, size and Color.
[Ex.LG-CATV 1.10T x 27 mm Black]

VIT-300, VIT-600

Polychem Products

NOT HEAT-SHRINKABLE PVC TUBING 300,600V, 105^{O} C

Applications

VIT-300/600 is a flexible, flame-retardant not heat-shrinkable polyvinyl chloride tube. They are widely used for protective covering for wires.

Features

- Continuous operation temperature :-10^{o}C to 105^{o}C
- Flammability : UL VW-1, CSA OFT
- Excellent electrical properties.
- High resistance to chemicals

SPECIFICATION VALUES

		PROPERTY	TEST METHOD	VALUE
Physical	Unaged	Tensile strength Elongation	ASTM D 638	Min. 1.06kgf/mm^2 Min 100%
	Aged	Tensile Strength Elongation	136^{o}C/168 hrs	Min. 70% of the Value of unaged specimens
	Deformation		121^{o}C/1 hr	Max. 50%
	Heat shock		121^{o}C/1 hr	No crack
	Cold bend		-10^{o}C/1 hr	No crack
	Flexibility		136^{o}C/168 hrs	No cracks
Electrical	Dielectric strength		-	Min.2.5kV/1 Minute
	Volume resistivity		-	Min. 10 ^{10} Q – cm
Chemical	Copper corrosion		136^{o}C/168 hrs	No corrosion
	Copper Stability		136^{o}C/168 hrs	No sign of degradation
	Flammability		VW-1	Pass

STANDARDS

UL 224 (File No.:E84393) CSA C22.2 (File No.: LR55659)

VIT-300, VIT-600

Polychem Products

NOT HEAT-SHRINKABLE
PVC TUBING
300/600V, 105^{O} C

Product Dimensions

SIZE	D(Nom.) Inside Diameter (mm)	VIT - 300		VIT - 600		STANDARD LENGTH (M)
		T(Nom.) Thickness (mm) VIT- 300	D(Nom.) Outer Diameter (mm) VIT - 300	T(Nom.) Thickness (mm) VIT - 600	D(Nom.) Outer Diameter (mm) VIT - 600	
((AWG SIZE)						
22	0.69	0.30	1.30	0.53	1.75	
20	0.86	0.40	1.65	0.53	1.90	
18	1.07	0.40	1.90	0.53	2.15	
16	1.34	0.40	2.10	0.68	3.45	
14	1.68	0.40	2.50	0.68	3.85	
13	1.93	0.40	2.75	0.68	4.10	
12	2.16	0.40	2.95	0.68	4.30	
11	2.14	0.40	3.20	0.68	4.55	
10	2.69	0.40	3.50	0.68	4.85	
9	3.00	0.53	4.05	0.68	5.40	305
8	3.38	0.53	4.45	0.68	5.80	
7	3.76	0.53	4.80	0.68	6.15	
6	4.22	0.53	5.25	0.68	6.60	
5	4.72	0.53	5.75	0.68	7.10	
4	5.28	0.53	6.85	0.68	7.70	
3	5.94	0.53	7.00	0.68	8.35	
2	6.68	0.53	7.75	0.68	9.10	
1	7.40	0.53	8.40	0.68	9.75	
0	8.38	0.53	9.45	0.68	10.8	

Ordering Information

Standard colors : Black & Clear

Ordering description : Specify product name, size, and color [for example, VIT – 600 22 AWG Clear

Polychem products

 # 28, 3rd Cross, Church Road, New Thippasandra, Bangalore – 560 075.
Tel : 080-2529 7126, 98456 34834 & 98440 45286,
Fax : 080-2529 7126, email : polypro@vsnl.com

Additional Products available on special request

1) Flexible 3:2 Shrink ratio polyolefin with meltable adhesive for brake/fuel pipe of automobiles. Also available without adhesive.
2) Adhesive coated tubes / Non Adhesive coated tubes in
   a) 4:1
   b) 5:1
   c) 6:1 shrink ratio
3) Non Shrinkable tubes:
   a) Polyolefin
   b) Kynar
4) Non Halogen thin Wall polyolefin
5) Semi rigid polyolefin tubing (butt spice) for tough and high abrasion resistance.
6) PVC Heat shrinkable tubes with UL Approvals.
7) Anti tracking tubing
8) Teflon sleeves
9) Heat Shrinkable oil resistant tube
10) 3:1 shrink ratio Kynar (PVF2) sleeves
11) Heat shrinkable sheath
12) Heat shrinkable semi conductor tubes.
13) Heat Shrinkable Cable breakouts and sheds
14) Cold Shrinkable tubes
15) Expandable sleeves
16) Cable end caps
17) Heat Shrink Angles and Boots
18) Kapton Film,Normex,Formex,Ceramic,Mylar Film, Teflon Tape,and silicon sleeve
19) Marker sleeves in Ladder form.
20) Protective sleeve upto 1500 degress C