

# Viton

## 2:1 Viton® - Flexible Heatshrink Tubing

Viton is a rubber-like, highly fluid resistant, flame retardant fluoro-elastomer heat-shrinkable tubing with high solvent resistance. The product is recommended for bundling, harnessing and environmental protection within engine compartments.

Nominal Size	Part #	Unshrunk Diameter	Shrunk Diameter	Standard Spool Put-Ups		Available Colors	Lbs/100'
				Bulk Spool	Shop Spool		
1/8"	H2V0.13BK	3.2mm	1.6mm	200'	100'	Black (BK)	1.26
3/16"	H2V0.19BK	4.8mm	2.4mm	200'	100'	Black (BK)	1.45
1/4"	H2V0.25BK	6.4mm	3.2mm	200'	100'	Black (BK)	1.68
3/8"	H2V0.38BK	9.5mm	4.7mm	200'	100'	Black (BK)	2.27
1/2"	H2V0.50BK	12.7mm	6.4mm	100'	50'	Black (BK)	2.29
5/8"	H2V0.63BK	16.0mm	8.0mm	100'	50'	Black (BK)	
3/4"	H2V0.75BK	19.1mm	9.5mm	100'	50'	Black (BK)	4.14
7/8"	H2V0.88BK	22.4mm	11.0mm	50'	25'	Black (BK)	
1"	H2V1.00BK	25.4mm	12.7mm	50'	25'	Black (BK)	5.73
1 1/4"	H2V1.25BK	31.7mm	15.7mm	50'	25'	Black (BK)	
1 1/2"	H2V1.50BK	38.1mm	19.1mm	50'	25'	Black (BK)	
2"	H2V2.00BK	50.8mm	25.4mm	50'	25'	Black (BK)	

- **Shrink Temperature 248°F (120°C)**
- **Mil-I-DTL-23053/13**
- **Flame Retardant**
- **Resistant to Highly Corrosive Acids, Fluids, Fuels & Solvents**
- **High Operating Temp. 392°F (200°C) For Extreme Working Conditions**

Viton® is a registered trademark of DuPont Performance Elastomers.  
Kynar® is a registered trademark of the Arkema Corporation.

# Kynar

## 2:1 Kynar® - Semi-Rigid Heatshrink Tubing

Kynar is a highly flame-retardant tubing that is tough and abrasion resistant in mechanical environments. The product is recommended for applications for strain relieving components such as soldered connections and splices.

Nominal Size	Part #	Unshrunk Diameter	Shrunk Diameter	Bulk Box Put Up/4'Pcs.	Shop Box Put Up/4'Pcs.	Available Colors	Lbs/10Pcs.
3/64"	H2K0.05	1.2mm	0.6mm	200	25	CL & BK	0.03
1/16"	H2K0.06	1.6mm	0.8mm	200	25	CL & BK	0.05
3/32"	H2K0.09	2.4mm	1.2mm	200	25	CL & BK	0.06
1/8"	H2K0.13	3.2mm	1.6mm	200	25	CL & BK	0.07
3/16"	H2K0.19	4.8mm	2.4mm	200	25	CL & BK	0.10
1/4"	H2K0.25	6.4mm	3.2mm	200	25	CL & BK	0.15
3/8"	H2K0.38	9.5mm	4.7mm	200	25	CL & BK	0.25
1/2"	H2K0.50	12.7mm	6.4mm	100	25	CL & BK	0.30
3/4"	H2K0.75	19.1mm	9.5mm	50	25	CL & BK	0.50
1"	H2K1.00	25.6mm	12.7mm	50	25	CL & BK	0.80

- **Mil-I-DTL-23053/8**
- **VW-1, UL 224, CSA**

\*Contact your Account Representative for heatshrink cutting & printing services.

**2/1 KYNAR**

- MIL-I-DTL-23053/8
- Shrink Temperature  
374°F (175°C)
- Highly Flame-Retardant
- Withstands High Temps.
- Excellent Abrasion Resistance
- Easily Installs Over Connectors And Splices

**Put-Ups**

Nominal Size	Part #	Unshrunk Diameter /mm	Shrunk Diameter /mm	Bulk Box Put Up/4' Pcs.	Shop Box Put Up/4' Pcs.	Available Colors	Lbs/ 10Pcs.
3/64"	H2K0.05	1.2	0.6	200	25	2	0.03
1/16"	H2K0.06	1.6	0.8	200	25	2	0.05
3/32"	H2K0.09	2.4	1.2	200	25	2	0.06
1/8"	H2K0.13	3.2	1.6	200	25	2	0.07
3/16"	H2K0.19	4.8	2.4	200	25	2	0.10
1/4"	H2K0.25	6.4	3.2	200	25	2	0.15
3/8"	H2K0.38	9.5	4.7	200	25	2	0.25
1/2"	H2K0.50	12.7	6.4	100	25	2	0.30
5/8"	H2K0.63	15.9	7.9	100	25	2	0.40
3/4"	H2K0.75	19.1	9.5	50	25	2	0.50
1"	H2K1.00	25.6	12.7	50	25	2	0.80

**Kynar 2/1 Heatshrink Tubing Shrinks To 1/2 its original diameter!**



**Cut Cleanly**  
Scissor

**Material**  
Polyvinylidene Fluoride

**Grade**  
H2K

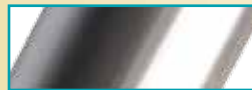
2/1 Kynar tubing is a Polyvinylidene Fluoride heat-shrink tubing that shrinks to 1/2 its original diameter. During the shrinking operation, the tubing will encapsulate any device inside of it at the time and will assume the contour of that device.

**Colors Available:**  
2=Clear (CL) & Black (BK)

Kynar is a high flame-retardant tubing that is tough and abrasion resistant in mechanical environments. It has excellent properties for cut through and solvent resistance.

Shrinkflex Kynar is recommended for applications for strain relieving components such as soldered connections and splices, which are in high continuous operating temperature environments.

Colors Available:



Black (BK) and Clear (CL).



**Perfect tubing for application where abrasion resistance is important.**



[www.techflex.com](http://www.techflex.com)

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104 Demarest Road • Sparta, NJ 07871

**VW-1**

**HALOGEN FREE**



# HEATSHRINK TUBING

## Technical Data Sheet



### 2/1 KYNAR



Moisture Absorption % *ASTM D-570* \_\_\_\_\_ 0.5  
 Flammability Rating \_\_\_\_\_ *UL 224 VW-1*



### Chemical Resistance

Fluid Resistance (23°C/73°F, 24 hrs.) \_\_\_\_\_ 5,000

Shrinks  
347°F (175°C)

Maximum Continuous  
*MIL-DTL-23053*  
347°F (175°C)

Minimum Continuous  
*MIL-DTL-23053*  
-67°F (-55°C)



www.techflex.com

## PHYSICAL PROPERTIES

- Recommended Cutting \_\_\_\_\_ Scissors
- Colors \_\_\_\_\_ 2
- Tensile Strength PSI \_\_\_\_\_ 5,000  
*ASTM D-638*
- Elongation % *ASTM D-638* \_\_\_\_\_ 150
- Specific Gravity *ASTM D-792* \_\_\_\_\_ 1.8
- Deformation % (302°F/150°C, 1 Hr.) *UL 224* \_\_\_\_\_ 50
- Low Temp. Flex (-67°F/-55°C) \_\_\_\_\_ No Cracking  
*MIL-DTL-23053*
- Heat Shock (572°F/300°C, 4 Hrs.) \_\_\_\_\_ No Cracking  
*MIL-DTL-23053*
- Secant Modulus PSI *ASTM D-882* \_\_\_\_\_ 100,000
- Longitudinal Change % *MIL-DTL-23053* \_\_\_\_\_ ±10
- Dielectric Strength (kV/mm) \_\_\_\_\_ 23.6  
*ASTM D-876*
- Volume Resistivity (ohm-cm) \_\_\_\_\_ 1.0 x 10<sup>13</sup>



Measure the Shrinkflex® tubing to length and cut with a scissor.

The thickness of your bundle, as well as the desired final appearance, will determine the length of the tubing you cut. Generally, a piece 1 1/2" - 2" long will accommodate almost any need. Single wires, or smaller bundles, require shorter pieces.



Slip the Shrinkflex® tubing over the bundle and position it so that both the sleeved and unsleeved portions are sufficiently covered.

Notice the small pieces of tubing installed on single wires as part of a color coding system. If your project requires multiple operations, always work up from the smallest to the largest bundle.



Gently apply heat to Shrinkflex® tubing from a heat gun, hair dryer or torch with an appropriate attachment.

Keep the heat source far enough away so that hot metal or direct flame does not come in contact with the tubing, wires or sleeving. Move the heat around the bundle to prevent damaging the sleeving and to ensure that all areas of the tubing have been shrunk. Once cooled, your installation is complete.





# How to work with heatshrink tubing...



## What is Heatshrink Tubing?

Heatshrink tubing is a flexible, pre-stretched tube, engineered from a wide range of polymers, that will shrink to a fixed diameter when sufficient heat is applied. Its diameter and thickness can vary, and it is rated by its expansion ratio, a comparative of the differences in expansion and recovery rate.

Heatshrink tubing is the ideal way to create a tight, professional finish on any wire, hose or cable management project. Once shrunk, the tubing will hold its reduced state, even in elevated temperatures. Typical applications for the heatshrink tubing include: electrical insulation, termination, splicing, cable bundling, color coding, strain relief, wire marking, identification, mechanical protection, corrosion protection, abrasion protection and moisture and weather sealing.

## What does shrink ratio (2:1, 3:1, etc.) mean?

The shrink ratio is the approximate maximum amount that heatshrink tubing will shrink relative to the unshrunk diameter. For example, a piece of 3/4" heatshrink tubing with a 3:1 shrink ratio will shrink down to a maximum diameter of approximately 1/4" when fully shrunk. All heatshrink tubing on our site is specified in it's UNSHRUNK diameter, so consider the shrink ratio and the unshrunk diameter when ordering heatshrink tubing. Heatshrink tubing with a larger shrink ratio will be more forgiving when fitting the tubing over plugs or connectors, but will have a bit thicker wall thickness and slightly less flexibility when shrunk then a lower ratio product.



### Step 1

**Measure the heatshrink tubing to length and cut with a scissor. The thickness of your bundle, as well as the desired final appearance, will determine the length of the tubing you cut. Generally, a piece 1 1/2" - 2" long will accommodate almost any need (such as this bundle of network cables). Single wires, or smaller bundles, require shorter pieces.**



### Step 2

**Slip the tubing over the bundle and position it so that both the sleeved and unsleeved portions are sufficiently covered. Notice the small pieces of tubing installed on single wires as part of a color coding system. If your project requires multiple operations, always work up from the smallest to the largest bundle.**



### Step 3

**Gently apply heat from a heat gun, hair dryer or torch with an appropriate attachment. Keep the heat source far enough away so that hot metal or direct flame don't come in contact with the tubing, wires or sleeving. Move the heat around the bundle to prevent damaging the sleeving and to ensure that all areas of the tubing have been shrunk. Once cooled, your installation is complete.**



## Milwaukee High Quality Heat Guns & Accessories

Production quality heat guns from one of the finest names in tools. These high quality guns will provide years of dependable service under the most intensive conditions. High strength, impact resistant cases with heavy duty motors and heating elements.

**Dual Temp - HGD8975-6**

**Variable Temp LED Display - HGL8988-20**

**Accessory Kit - HGA49-80-0300**