

# Heat Shrink Kits "HSK"

## Application and Description

The Heat Shrink Kit is a heat-shrinkable tubing for insulating and sealing L-823 type plug and receptacle electrical connectors. The medium wall tubing is designed for a variety of low voltage cable applications where lighter weight and greater flexibility are important. The tubing is made from a thermally stabilized, modified polyolefin.

## Features

- Mechanical protection: high impact and abrasion resistance of tubing provides excellent mechanical protection. It also provides additional strain relief.
- Environmental seal: sealant provides excellent waterproofing and environmental protection in submersible and buried applications.
- Superior adhesion: thermoplastic adhesive will adhere to all standard plastic, elastomeric insulating material, lead, steel, aluminum and copper.
- Easy to install: when heated above +248°F (+120°C), the tubing shrinks rapidly to seal and encapsulate electrical connections. This provides a fast, simple and clean insulation system. The tubing will not split or rupture during normal installation, even when overheated.

## General Specifications

- Model Number: TRH-HSK-1.5
- Color: Black
- Material: Polyolefin
- Shrink Ratio: 3:1
- Lining: Adhesive-lined
- Adhesive Material: Hot melt adhesive

## Dimension Specifications

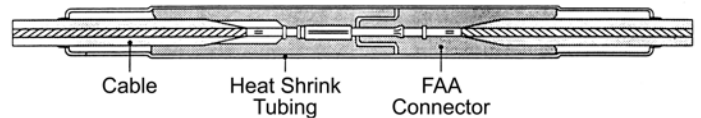
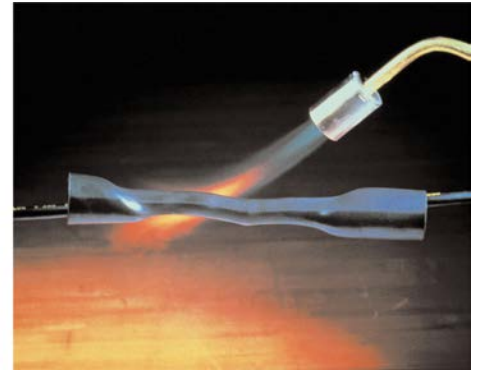
- Overall Sleeve Length: 16" (40.6 cm)
- Inner Diameter Before Shrink: 1.5" (38.1 mm)
- Inner Diameter After Shrink: 0.375" (9.53 mm)
- Wall Thickness After Shrink: 0.08" (2 mm)

## Temperature Specifications

- Shrink Temperature: +248°F (+120°C)
- Maximum Operating Temperature: +230°F (+110°C)
- Operating Temperature Range: -67°F to +230°F (-55°C to +110°C)

## Material Specifications

- Tensile Strength: 2,100 psi (14.5 MPa)
- Elongation: 550%
- Elongation after Heat Aging (168 hr. at +150°C): 500%
- Heat Shock (4 hr. at +225°C): No cracking or flowing
- Longitudinal Change: +1%, -10%
- Low Temperature Flexibility (4 hr. at -55°C): No cracking
- Specific Gravity: 1.1
- Hardness (Shore D): 50D



## Electrical Specifications

- Dielectric Strength: 500 V/mil (20 kV/mm)
- Dielectric Voltage Withstand (2500 V, 60 Hz, 1 min): No breakdown
- Volume Resistivity:  $10^{16}$  ohm-cm

## Chemical Specifications

- Fluid Resistance: Good to excellent
- Fungus Resistance: No growth
- Copper Corrosion: No corrosion
- Water Absorption: 0.1%

## Adhesive Specifications

- Adhesive Lap Shear (1 in/min at +23°C): 125 psi (0.875 MPa)
- Adhesive Softening Point: +92°C ±5°C
- Adhesive Peel Strength (300 mm/min at +23°C) to steel, aluminum, PE: 35 pli
- Adhesive Peel Strength (300 mm/min at +23°C) to PVC: 20 pli
- Adhesive Blocking (+30°C): No blocking
- Water Penetration: No penetration after 286 hr. of continuous immersion

+1.800.806.3548 USA  
+1.916.394.2800 Worldwide

[www.flightlight.com](http://www.flightlight.com)  
[sales@flightlight.com](mailto:sales@flightlight.com)

Flight Light Inc., 2708 47th Ave.  
Sacramento, CA, 95822, USA