

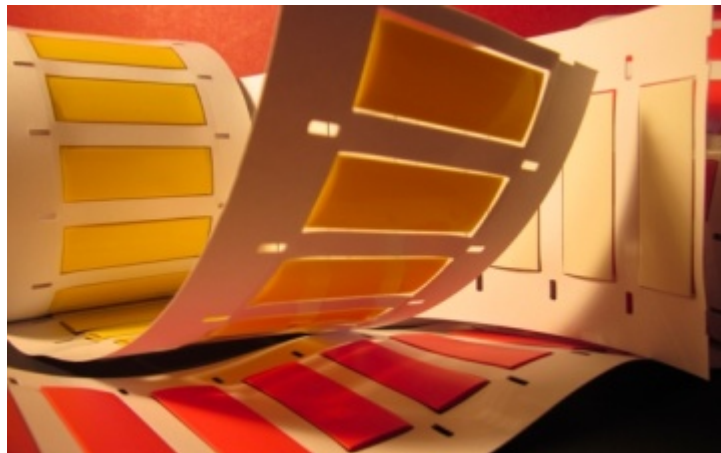
## Printashrink SPF3-L

Printashrink SPF-L is a flattened 135°C, UL approved, 3:1 shrink ratio heatshrink polyolefin. It is in the form of printable labels organised on ladder-style carriers which meet MIL-SPEC requirements. They are fire retardant and available in a range of colours and sizes up to 50.8mm ID and can be [printed](#) as required.

This flattened 3:1 heatshrink polyolefin tube can be supplied on a number of differently sized and structured ladder-style carriers making it compatible with most printers. It is a UL/CSA approved sleeve which meets MIL-SPEC requirements, has a 135°C working temperature and excellent electrical, chemical and physical properties. These attributes make it perfect for aerospace, military, defence, and many other professional applications. Its surface and profile are designed for thermal transfer printing and it is available in varying sleeve lengths to suit any print requirement and set up. We can supply unprinted or pre-printed as required.

### Technical Data

- **Shrink Ratio:** 3:1
- **Shrink Temperature** +85°C
- **Operating Temperature** -40°C – +135°C
- **Flame Retardant:** Yes
- **Colours:** Yellow, White, Other colours available upon request
- **Sizes:** 2.4 x 13, 19, 25, 38, 50mm ? 50.8 x 13, 19, 25, 38, 50mm
- **Packing:** Rolls, mini-packs
- **Approvals:** SAE-AMS-DTL-23053/5 class 1&3, SAE AS81531:1531:1998 4.6.2, MIL-STD-202F 215J, UL224 125? 600V VW-1, CSA certified, RoHS compliant
- **Applications / Industries:** General, Commercial, Electrical, Electronics, Mechanical, Automotive, Military-defence, Aerospace



Properties	Typical Values	Test Methods
General		
Operating Temperature	-40°C – + 135°C	
Minimum shrink temperature	85°C	
Shrink Ratio	2:1	
Physical		
Tensile Strength	?14MPa	ASTM D 638
Ultimate elongation	? 400%	ASTM D 638
Specific gravity	1.34g/cm³	ASTM D 792
Longitudinal change	0% – -2%	SAE-AMS-DTL-23053
Secant Modulus	65MPa	ASTM D 882
Thermal		
Flammability	VW-1 pass	UL224
Heat shock (4hrs)	No dripping, cracking or flowing	SAE-AMS-DTL-23053
Low temperature flexibility (4hrs @ -55°C)	No cracking	SAE-AMS-DTL-23053
Heat ageing (168hrs)	Elongation ? 400%	SAE-AMS-DTL-23053
Electrical		
Dielectric strength	? 37 kV/mm	UL 224
Volume resistivity	3.1 x 10¹? ? cm	ASTM D 876
Voltage rating	600v	UL 224
Dielectric Voltage	withstands 2.5kV for 60s	UL 224
Chemical		
Copper corrosion	Pass	SAE-AMS-DTL-23053
Copper stability	Pass	SAE-AMS-DTL-23053
Fluid resistance	Gasoline, hydraulic fluid, lubricating oil, tensile 25-14MPa	SAE-AMS-DTL-23053
Fungus resistance	Pass, no growth	ASTM G 21

Size (mm)	Supplied diameter (mm)	Shrunk diameter (mm)	Nominal wall thickness (mm)
2.4 x 13, 19, 25, 38, 50	2.4	0.8	0.57
3.2 x 13, 19, 25, 38, 50	3.2	1.0	0.61
4.8 x 13, 19, 25, 38, 50	4.8	1.6	0.67
6.4 x 13, 19, 25, 38, 50	6.4	2.4	0.71
9.5 x 13, 19, 25, 38, 50	9.5	3.2	0.77
12.7 x 13, 19, 25, 38, 50	12.7	4.8	0.80
19.1 x 13, 19, 25, 38, 50	19.1	6.4	0.84
25.4 x 13, 19, 25, 38, 50	25.4	8.4	0.86
38.1 x 13, 19, 25, 38, 50	38.1	12.7	0.89
50.8 x 13, 19, 25, 38, 50	50.8	18.0	0.90

Printasleeve Ltd is as diligent as possible in compiling and updating the above information. It reflects averages derived from product sample testing, is subject to normal manufacturing and testing tolerances and may be changed without notice. Furthermore aesthetic and textural style differences can result in local variation. For specific or further information concerning our products, their specifications and their utilisation please contact us. E & OE

