

HSP3F

Endless Flattened 3:1 UL224/CSA heat-shrink tubing with ideal properties for identification by thermal transfer printing. Designed to cover a wide range of applications for panel builders, shipyard and cable harness manufacturing

Features

Very good print results
Flame retardant according to UL224/CSA
Ready to use for thermal transfer printers
3:1 shrink ratio in inch size
Shrink temperature > 90°C
Operating Temperature –55°C to 135°C



Size inch	Size mm	Flat width (NOM) mm	Max. ID recovered mm	Recovered wall thickness (NOM) mm
3/32	2.4	4,2	0.8	0.53
1/8	3.2	5,6	1.0	0.58
3/16	4.8	7,6	1.6	0.58
1/4	6.4	10,7	2.0	0.63
3/8	9.5	15,1	3.0	0.63
1/2	12.7	20,9	4.0	0.68
3/4	19.1	30,9	6.0	0,90
1	25.4	40,5	8.0	1,00
1 1/2	38.1	60,5	12.7	1.10

Stock colours



Non stock colours



MIL **c** **UL** **us**

SAE AS81531 4.6.2*
MIL-STD-202G method 215K*

UL 224, 125°C

CSA C 22.22
No. 198.1-98, OFT

HSP3F is the flattened version of our round tubing HSP3

Detailed technical information which include physical, thermal, chemical and electrical properties can be found in HSP3 technical datasheet

To check those details please visit our website.

Description	Test method	Typical value
Adherence test (eraser method)	SAE AS81531	legible
Fluid resistance:	MIL-STD-202G method 215K	
Isopropyl Alcohol/Mineral Spirits Blend	10 rubs (X3)	legible
Terpene Defluxer	10 rubs (X3)	legible
H ₂ O/PGME/Monoethanolamine	10 rubs (X3)	legible

Description	Test method	Ribbon Y201P	Ribbon Y501P
Scratch test (rough sponge method)	in-house		
	10 rubs	good	very good
Solvent test	in-house		
isopropyl alcohol 99,9%	10 rubs	good	excellent
isopropyl alcohol 99,9%	20 rubs	good	excellent

Description	Ribbon Y201P	Ribbon Y501P
Smear resistance (10 rubs)		
Diesel	2	2
Hydraulic oil	1	1
Unleaded gasoline	3	4
Ethyl alcohol 92%	1	1
Ethyl alcohol 95%	1	2
Legend:	1 – no effect; 2 – slight fading; 3 – moderate fading but still legible; 4 – severe fading and print illegible; 5 – complete print removal	

Ribbons recommended: best print results are achieved with our recommended ribbons
Standard packaging: available on bulk reels and small reels (detailed information on request)