



GCS

**MATERIAL SPECIFICATION: MIL-STD HEAT SHRINK SUBSTITUTION**

**1.0 SCOPE:**

This specification details the range of acceptable heat shrink for a vendor of L-3 Global Communications to substitute in heat shrink for cable assemblies. Each lot of heat shrink/cable assemblies for L-3 GCS must meet the specified values listed.

**2.0 ORDER OF PRECEDENCE:**

In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

**3.0 MATERIAL PROPERTIES:**

Every L-3 GCS cable requesting the use of heat shrink, vendors must follow the Mil-Spec below when cross referencing to the correct heat shrink. The vendor is allowed to use any heat shrink that falls in line with this Mil-Specification (MIL-DTL-23053).

The below table is the route to take to find the heat shrink cross reference.

Heat Shrink Description Example :	M23053	/5	-	1	01	-	9
	[1]	[2]		[3]	[4]		[5]
Actual Mil-Spec Form:	M23053/5-101-0						
Description:	Light Duty Harness Jacket made for marking or identification – Class 1, .046” Wire Max, White Color						

Prefix [1]	All L-3 GCS heat shrink must carry this prefix
Specification Number [2] (See note 4.0)	Type, temperature range, composition
Class [3] (See note 5.0)	Class (Where no classes are specified in the specification sheet, the numeric “0” is used)
Size Identifier [4] (See note 6.0)	A number code that identifies the heat shrink tubing size
Color Code [5] (See note 7.0)	Color code designator



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**4.0 SPECIFICATION NUMBER [2]:**

[2] Specification Number	Description
/1	Intended for use on heavy duty cables or harness systems such as ground support.
/2 and /3	Used for light-duty harnessing or wire bundling.
/4	Used for one-step potting, encapsulation, or moisture sealing and corrosion protection of electrical components or terminations.
/5	Used for light-duty harness jackets, wire color coding, marking, or identification.
/6	Used for wire identification, marking, or strain relief.
/7	Used for light-duty wire identification and component covering.
/8	Used for wire or termination strain relief at elevated temperatures.

**5.0 CLASS [3]:**

[3] Conductor Material	
1	Semi-rigid, non-flame retardant
2	Flexible, flame retardant
3	Flexible, flame retardant, high expansion

**6.0 SIZE IDENTIFIER [4]:**

[4] Heat Shrink Size			
Number	Size	Number	Size
01	3/64	08	1/2
02	1/16	09	3/4
03	3/32	10	1
04	1/8	11	1 1/2
05	3/16	12	2
06	1/4	13	3
07	3/8	14	4



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MIL-STD REFERENCE  
1000-0303-01 REV A  
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7.0 COLOR CODE [5]:

<b>[6] Color Code per MIL-STD-681</b>	
<b>Number designation</b>	<b>Color</b>
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White
C	Clear
P	Pink
T	Tan