



Issue : AE

TIE - CABLE

Date : Nov 04

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AMENDMENT RECORD SHEET**1 - SCOPE AND FIELD OF APPLICATION**

This standard specifies the dimensions, required characteristics and the masses of a cable tie used for making harnesses.

The ties will be black, colorless or sea green on aircrafts.

Certain so-called "sensitives" lines may be identified using high temperature colored ties, but it is preferable in such cases to use sleeve identification.

2 - REFERENCES**2.1 - Referenced documents**

- EN 2424 : Aerospace series - Marking of aerospace products.
- MIL-M-20693 : Holding plastic, polyamide (PA 6.6), rigid.
- MIL-S-23190 : Straps, clamps, and mounting hardware, plastic and metal for cables harness tying and support.

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MS 3367 : Strap, tiedown, electrical components, adjustable, self-clinching, plastic, type I, class I.

2.2 - Associated documents

AIPS07-01-001 : Manufacturing and installation of cable harnesses.

AIPS07-01-003 : Cable tying NSA935401 or NSA8420.

3 - TERMINOLOGY

Not applicable.

4 - REQUIRED CHARACTERISTICS

4.1 - Configuration, dimensions, mass

4.1.1 - Configuration shall be in accordance with figure 1.

4.1.2 - Dimensions shall be in accordance with table 1.

4.1.3 - Mass shall be in accordance with table 1.

4.2 - Material : Stabilized PA 6.6.

4.3 - Temperatures

4.3.1 - Operating temperatures shall be between $-55\text{ }^{\circ}\text{C}$ and $+135\text{ }^{\circ}\text{C}$.

4.3.2 - The life duration variation in terms of operating temperature for stabilized PA 6.6, shall be in accordance with figure 2 and table 2.

4.4 - Mechanical characteristics

4.4.1 - Operating ranges shall be in accordance with table 1.

4.4.2 - Min. tension resistance shall be in accordance with table 1.

4.5 - General characteristics

Colors shall be in accordance with table 3.

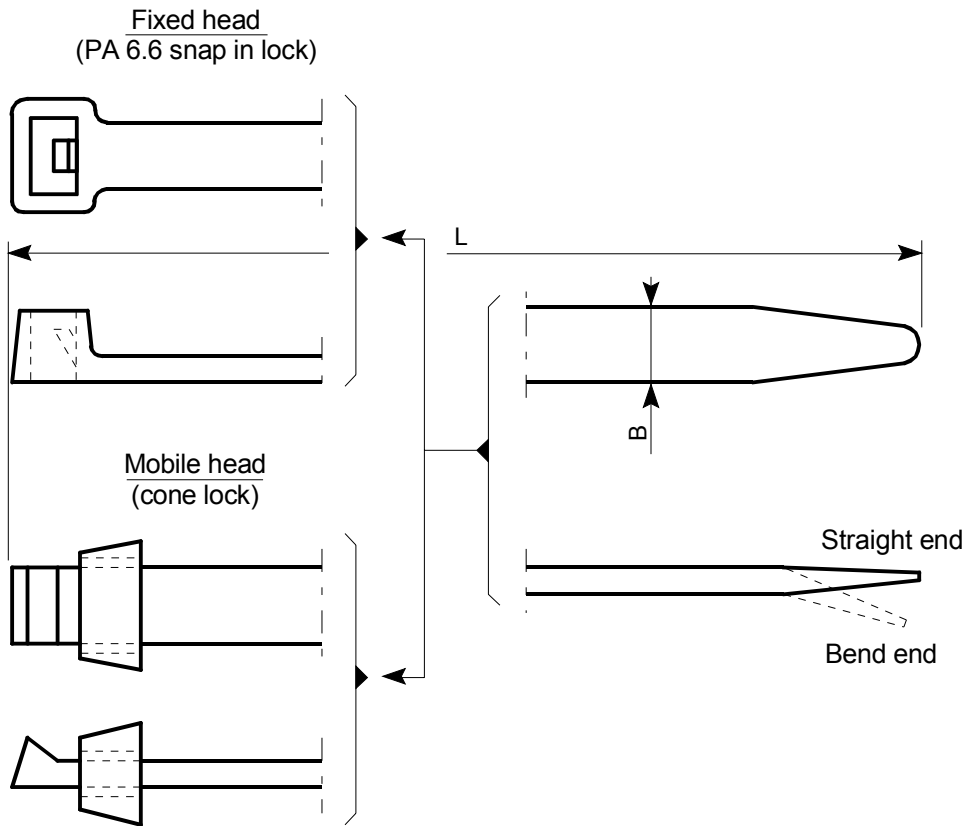


Figure 1 - Configuration

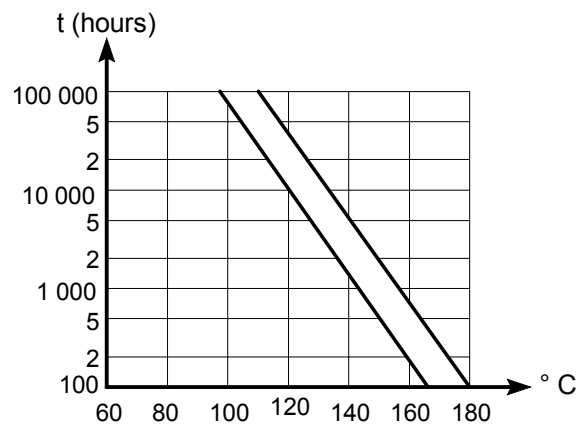


Figure 2 - Temperature resistance

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Table 1 - Dimensions, mass

SIZE CODE	B		L		OPERATING RANGE STRAND Ø		MIN. TENSILE STRENGTH (daN)	MASS MAX. (g/1 000)
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
00	Dummy size code 00 see note 1 chapter 5							
03	2,4	2,5	92	102	1,6	20	8	300
04	3,4	3,6	137	150		35	12	570
05	4,6	4,8	172	204		50	22	1 250
06			279	302		78		1 880
08			360	389	109	2 380		
10	7,5	7,6	338	376	4,8	108	40	4 700
12	7,6	8,9	700	780		230		9 360
13	3,4	3,7	279	295	1,6	77	12	1 700

Dimensions in mm.

Table 2 - Life duration

TEMPERATURE (°C)	LIFE DURATION (h)
150	< 200
140	1 500
105	50 000

Table 3 - General characteristics

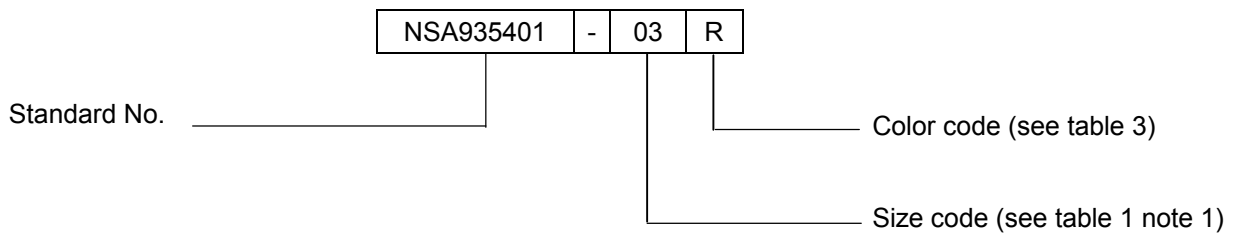
TIE TYPE	COLOR CODE	COLOR
Standard	Without	Black or natural
Color ties	R	Red
	B	Blue
	G	Green
	Y	Yellow
	S	Grey

5 - DESIGNATION

Example of part number identification to be used on drawing schedules :

NSA935401-03R , Tie

Example of part number construction :



Note 1 : size code 00 shall be used on drawing and part list when the size of the cable tie is not specified.

This size code 00 could not be purchased.

6 - MARKING

Parts shall be marked as per EN 2424.

Unless otherwise specified by contract, marking shall include :

On conditioning support :

- The manufacture date (year, week),
- The manufacturer's part number,
- The manufacturer's name or trademark,
- The identification defined in chapter 5.

On part :

- The manufacturer's name or trademark.

7 - TECHNICAL SPECIFICATION

As per MIL-M-20693 and MIL-S-23190.

Dimensions as per MS 3367.

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8 - MANUFACTURERS

Refer to the list of qualified manufacturers and products.

AMENDMENT RECORD SHEET

Issue	Modified paragraph	Modification summary	Justification
A.		New standard.	
B.08.70		Standard updated.	
C.01.72		One manufacturer and IF To. No. 625 added.	Memo. 368/71
D.03.72		Manufacturer part numbers changed.	DT 03-06-004 Memo. 48/72
E.11.73		Code M metal catch tie added.	
F.09.74		Manufacturer part numbers added as per BAS 6183. Fire resistance added as per standard FAR25853B3.	After test report DT0/PM/217236/74 Memo. 106/74
G.09.75		Manufacturer part number added.	Telex 18050
H.05.76		Technical specification added.	
J.04.77		Snap-in ties references modified. Manufacturer part numbers added. Twist-locking deleted.	
K.02.78		Manufacturer part numbers modified.	
L.09.79		Item code No. 12 added.	Mod. 9999
M.09.81		Standard amended.	Mod. 9999
N.02.82		Standard updated. Code 06 and note modified.	Mod. 9999
P.05.82		Manufacturer added. Corrections, MBB remarks.	Mod. 9999 Note BE No. 462-580/81
R.12.82		Size code 03 and 03M added. Peak value of +150 °C added. Checking conditions added. Table 1 indications added. Informations on manufacturer added.	
S.07.84		Standard updated. Page 1 : new identification. Manufacturer part number modified.	Mod. 9999

NOTE : Modification to the last standard issue are indicated by a vertical line in the margin.

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Issue	Modified paragraph	Modification summary	Justification
T.05.86		Standard amended.	AI/T7 request
U.08.86		One manufacturer's +105 °C ties deleted.	
V.01.87		Page 1 : metal catch added.	
W.11.88		Manufacturer part number modified.	
Y.06.90		Metal catch ties qualified.	Note AS 462-285/86
Z.12.90		Standard fully amended.	TE 422-314/88 HAM
AA.06.91		Temperature curves added.	
AB.01.93		In drawing : "A.S. use only" added.	BAe request Fax 134118
AC.05.93		In table min. tensile strength added.	Following as dispute No. 15728
AD.02.03		Metal catch tie deleted.	Following GTSE No. 2148/91
AE.11.04		Standard amended.	Deutsche Airbus request
		Color ties added.	TK422SL074/92
		Strand diameter added in table 1.	Mod. 9999
		In Table 1 : (g/100) changed to (g/1 000).	Following mistake
		IF To. Nos 594 and 625 changed to	
		AIPS 07-01-001 and AIPS 07-01-003.	
		Note 1 added in chapter 5.	

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