

# Cable Designation

Cable will be identified by a combination of digits and letter (not to exceed 16), in accordance with the following:

<b>M27500</b>	<b>=</b>	<b>22</b>	<b>SD</b>	<b>3</b>	<b>I</b>	<b>23</b>
Specification number	ID method of cable wire & shield coverage <b>(Chart A)</b>	Conductor size	Basic wire specification <b>(Chart B)</b>	Number of wires in cable <b>(Chart C)</b>	Shield style & material <b>(Chart D)</b>	Jacket material <b>(Chart E)</b>

## Example

M27500-22SD3T23 = 22 AWG, 3 conductor, tin shielded 85%, white XLETFE jacket

## Chart A Identification method of cable wire & shield

When an unshielded cable or wire, or a cable with a minimum shield coverage of 85 percent is required, specify:

-	for the preferred identification method using Table III A
F	for the preferred identification method using Table III B
A	for optional identification method A, Table III A
G	for optional identification method A, Table III B
B	for optional identification method B, Table III C
K	for optional identification method C
L	for optional identification method D
P	for optional identification method E
S	for optional identification method F

When a minimum shield coverage of 90 percent is required, specify:

C	for the preferred identification method using Table III A
H	for the preferred identification method using Table III B
D	for optional identification method A, Table III A
J	for optional identification method A, Table III B
E	for optional identification method B, Table III C
M	for optional identification method C
N	for optional identification method D
R	for optional identification method E
T	for optional identification method F

## Chart B Basic wire specification

Symbol sequence

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CA	MIL-W-22759/13	SC	MIL-W-22759/33
CB	MIL-W-22759/14	SD	MIL-W-22759/34
CC	MIL-W-22759/15	SE	MIL-W-22759/35
E	MIL-W-22759/2	SM	MIL-W-22759/41
EA	MIL-W-22759/1	SN	MIL-W-22759/42
JA	MIL-W-25038/1	SP	MIL-W-22759/43
JB	MIL-W-22759/28	SR	MIL-W-22759/44
JC	MIL-W-22759/29	SS	MIL-W-22759/45
JD	MIL-W-22759/30	ST	MIL-W-22759/46
JE	MIL-W-22759/31	TA	MIL-W-22759/8
JF	MIL-W-25038/3	TE	MIL-W-22759/16
LE	MIL-W-22759/9	TF	MIL-W-22759/17
LH	MIL-W-22759/10	TG	MIL-W-22759/18
MR	MIL-DTL-81381/7	TH	MIL-W-22759/19
MS	MIL-DTL-81381/8	TK	MIL-W-22759/20
MT	MIL-DTL-81381/9	TL	MIL-W-22759/21
MV	MIL-DTL-81381/10	TM	MIL-W-22759/22
MW	MIL-DTL-81381/11	TN	MIL-W-22759/23
MY	MIL-DTL-81381/12	VA	MIL-W-22759/5
NA	MIL-DTL-81381/13	WA	MIL-W-22759/6
NB	MIL-DTL-81381/14	WB	MIL-DTL-22759/80
NE	MIL-DTL-81381/17	WC	MIL-DTL-22759/81
NF	MIL-DTL-81381/18	WE	MIL-DTL-22759/82
NG	MIL-DTL-81381/19	WF	MIL-DTL-22759/83
NH	MIL-DTL-81381/20	WG	MIL-DTL-22759/84
NK	MIL-DTL-81381/21	WH	MIL-DTL-22759/85
NL	MIL-DTL-81381/22	WJ	MIL-DTL-22759/86
P	MIL-W-5086/4	WK	MIL-DTL-22759/87
RA	MIL-W-22759/3	WL	MIL-DTL-22759/88
RB	MIL-W-22759/4	WM	MIL-DTL-22759/89
RC	MIL-W-22759/11	WN	MIL-DTL-22759/90
RE	MIL-W-22759/12	WP	MIL-DTL-22759/91
SA	MIL-W-22759/7	WR	MIL-DTL-22759/92
SB	MIL-W-22759/32		

**Chart C Number of wires per cable**

- 1 to 15 for shielded or shielded and jacketed cables
- 2 to 15 for unshielded, unjacketed or unshielded jacketed cables
- Cables with 10 to 15 conductors will be limited to conductor size 12 and smaller

**Chart D Shield style and material**

Symbol single shield style	Symbol double shield style	Shield Material	Maximum temperature limit for shield material
U		No shield	
T	V	Tin-coated cooper, round	150°C
S	W	Silver-coated cooper, round	200°C
N	Y	Nickel-coated cooper, round	260°C
F	Z	Stainless steel, round	400°C
C	R	Heavy nickel coated cooper, round	400°C
M	K	Silver-coated high strength cooper alloy, round	200°C
P	L	Nickel-coated high strength cooper alloy, round	260°C
G	A	Silver-coated cooper, flat	200°C
H	B	Silver-coated high strength cooper alloy, flat	200°C
*	#	Nickel-coated cooper, flat	260°C
J	D	Tin-coated cooper, flat	150°C
E	X	Nickel-coated high strength cooper alloy, flat	260°C
I	Q	Nickel-chromium alloy, flat	400°C

**Chart E - Jacket materials**

Single jacket symbol	Double jacket symbol	Jacket Material	Temperature limit for jacket material
00	00	No jacket	
03	53	White polyamide braid impregnated with clear polyamide finisher over a polyester tape	105°C
04	54	Polyester braid impregnated with high temperature finisher over polyester tape	150°C
05	55	Extruded clear fluorinated ethylene propylene (FEP)	200°C
06	56	Extruded or taped and heat sealed white polytetrafluoroethylene (PTFE)	260°C
07	57	White polytetrafluoroethylene (PTFE) treated glass braid impregnated and coated with polytetrafluoroethylene finisher over presintered polytetrafluoroethylene tape	260°C
08	58 <sup>3</sup>	Crosslinked white extruded polyvinylidene fluoride (PVF <sub>2</sub> )	150°C
09	59	Extruded white fluorinated ethylene propylene (FEP)	200°C
10 <sup>3</sup>	60 <sup>3</sup>	Extruded clear polyvinylidene fluoride (PVF <sub>2</sub> )	125°C
11 <sup>4</sup>	61 <sup>4</sup>	Tape of natural polyimide combined with clear fluorinated ethylene propylene (FEP) wrapped and heat sealed with (FEP) outer surface	200°C
12 <sup>4</sup>	62 <sup>4</sup>	Tape of natural polyimide combined with fluorinated ethylene propylene (FEP) wrapped and heat sealed with polyimide outer surface	200°C
14	64	Extruded white ethylene-tetrafluoroethylene copolymer (ETFE)	150°C
15	65	Extruded clear ethylene-tetrafluoroethylene copolymer (ETFE)	150°C
16	66	Braid of aromatic polyamide with high temperature finisher over presintered polytetrafluoroethylene (PTFE) tape	200°C
17 <sup>5</sup>	67 <sup>5</sup>	White extruded ethylene chlorotrifluoro-ethylene (ECTFE)	150°C
18 <sup>5</sup>	68 <sup>5</sup>	Clear extruded ethylene chlorotrifluoro-ethylene (ECTFE)	150°C
20	70	Extruded white perfluoroalkoxy (PFA)	260°C
21	71	Extruded clear perfluoroalkoxy (PFA)	260°C
22	72	Taped of polyimide combined with clear fluorinated ethylene propylene (FEP) wrapped and heat sealed with opaque polyimide outer surface	200°C
23	73	White, cross linked, extruded, modified, ethylene tetrafluoroethylene copolymer (XLETFE)	200°C
24	74	Tape layer of white polytetrafluoroethylene (PTFE) wrapped over a tape layer of natural polyimide combined with FEP and heat sealed	200°C

1 - Polyvinyl chloride materials shall not be used for aerospace applications.  
 2 - Jacket material 02 is not to be used for cables having a diameter of 0.251 inch or greater.  
 3 - Jacket materials 08, 58, 10 & 60 are not to be used for cables having a diameter of 0.401 inch or greater.  
 4 - Not for Naval Air Systems Command usage.  
 5 - Inactive for new design.