



**TECHLACE**

# Why cable lacing...

Lasts longer than cable ties. Cable ties turn brittle and degrade over time due to environmental exposure and loss of plasticizers. A roll of lacing tape can manage any size cable bundle, from a couple of 22AWG wires to a fistful of heavy power cables.

Cable ties leave a sharp edge where the tail was cut off that can snag or get hung up. Some applications such as aerospace and aviation may specify laced harnesses as a design requirement. Lacing tape is ideal for lashing wires or cables to ladder bars, conduit and other wire management solutions.

Unlike cable ties, the insulation on wires bundled with lacing tape has less chance of cold flowing and shorting. No sharp edges to cut installer's hands when reaching into a tightly packed wiring cavity. Lacing tape is available in a wide range of materials, sizes and finishes to accommodate any engineering requirement.

## Braided flat lacing tape - inexpensive method of wire dressing:

- used extensively throughout the aerospace, electronics, medical & many smaller specialist manufacturing industries
- increased knot retention
- ideal for applications requiring reductions in size and weight
- good vibration performance with long term integrity and reliability



# Braided Nylon (Polyamide) Lacing Tape

## A-A-52080 TYPE I

- General purpose lacing tape
- Available colors: Natural (NT)
- Thermal endurance: -67°F to 250°F;  
Melting point: 478°F
- Finishes: A-No Finish or C-Synthetic Rubber



Part#	Mil Spec Size	Mil Spec Finish	Width		Thickness		Break Strength	Bulk Spool	Lbs/ Spool
			Min	Max	Min	Max			
LT1-S1-FA-NT	1	A	.180"	.220"	.013"	.019"	135lbs	750'	0.80
LT1-S2-FA-NT	2	A	.099"	.121"	.012"	.018"	80lbs	750'	0.45
LT1-S3-FA-NT	3	A	.077"	.094"	.011"	.017"	50lbs	1,500'	0.50
LT1-S4-FA-NT	4	A	.054"	.066"	.009"	.015"	25lbs	1,500'	0.40
LT1-S5-FA-NT	5	A	.045"	.055"	.006"	.014"	15lbs	1,500'	0.30
LT1-S1-FC-NT	1	C	.180"	.220"	.013"	.019"	135lbs	750'	0.95
LT1-S2-FC-NT	2	C	.099"	.121"	.012"	.018"	80lbs	750'	0.50
LT1-S3-FC-NT	3	C	.077"	.094"	.011"	.017"	50lbs	1,500'	0.55
LT1-S4-FC-NT	4	C	.054"	.066"	.009"	.015"	25lbs	1,500'	0.45
LT1-S5-FC-NT	5	C	.045"	.055"	.006"	.014"	15lbs	1,500'	0.30

# Braided Polyester (Dacron) Lacing Tape

## A-A-52081 TYPE II

- Superior knot tying properties to Nylon
- High temperature performance
- Suitable for aerospace/NASA applications
- Available colors: Red (RD)
- Thermal endurance: -99°F to 350°F;  
Melting point: 482°F
- Finishes: A-No Finish or C-Synthetic Rubber



Part#	Mil Spec Size	Mil Spec Finish	Width		Thickness		Break Strength	Bulk Spool	Lbs/ Spool
			Min	Max	Min	Max			
LT2-S1-FA-RD	1	A	.180"	.220"	.013"	.019"	135lbs	750'	0.80
LT2-S2-FA-RD	2	A	.099"	.121"	.012"	.018"	80lbs	750'	0.45
LT2-S3-FA-RD	3	A	.077"	.094"	.011"	.017"	50lbs	1,500'	0.50
LT2-S4-FA-RD	4	A	.054"	.066"	.009"	.015"	25lbs	1,500'	0.40
LT2-S5-FA-RD	5	A	.045"	.055"	.006"	.014"	15lbs	1,500'	0.30
LT2-S1-FC-RD	1	C	.180"	.220"	.013"	.019"	135lbs	750'	1.00
LT2-S2-FC-RD	2	C	.099"	.121"	.012"	.018"	80lbs	750'	0.55
LT2-S3-FC-RD	3	C	.077"	.094"	.011"	.017"	50lbs	1,500'	0.60
LT2-S4-FC-RD	4	C	.054"	.066"	.009"	.015"	25lbs	1,500'	0.45
LT2-S5-FC-RD	5	C	.045"	.055"	.006"	.014"	15lbs	1,500'	0.30

## TFE-Fluorocarbon Lacing Tape

### A-A-52082 TYPE III

- High heat resistance
- Good resistance to fluids and solvents
- Suitable for aircraft engine applications
- Available colors: Brown (BR)
- Thermal endurance: -99°F to 450°F; Melting point: 620°F
- Finishes: A-No Finish



Part#	Mil Spec Size	Mil Spec Finish	Width		Thickness		Break Strength	Bulk Spool	Lbs/Spool
			Min	Max	Min	Max			
LT3-S2-FA-BR	2	A	.108"	.132"	.009"	.014"	30lbs	750'	0.70
LT3-S4-FA-BR	4	A	.059"	.072"	.009"	.014"	15lbs	1,500'	0.65



## Braided Fiberglass Lacing Tape

### A-A-52083 TYPE IV

- Extremely high temperature performance
- Very low elongation
- Minimal fiber to fiber abrasion
- Produced from continuous filament electrical grade glass (E-glass)
- Available colors: Natural (NT)
- Thermal endurance: -67°F to 800°F; Melting point: 2,102°F
- Finishes: D-TFE-Fluorocarbon



Part#	Mil Spec Size	Mil Spec Finish	Width		Thickness		Break Strength	Bulk Spool	Lbs/Spool
			Min	Max	Min	Max			
LT4-S1-FD-NT	1	D	.203"	.248"	.013"	.019"	200lbs	750'	1.40
LT4-S2-FD-NT	2	D	.099"	.121"	.013"	.019"	100lbs	750'	1.10
LT4-S3-FD-NT	3	D	.077"	.094"	.013"	.019"	75lbs	1,500'	1.70
LT4-S4-FD-NT	4	D	.054"	.066"	.013"	.019"	50lbs	1,500'	1.20

# Braided Nomex Lacing Tape

## A-A-52084 TYPE V

- Extremely high temperature performance
- Non flammable
- Highly resistant to fluids and lubricants
- Suitable for critical aircraft harness applications
- Available colors: Natural (NT)
- Thermal endurance: -67°F to 500°F;  
Melting point: 700°F
- Finishes: A-No Finish or C-Synthetic Rubber



Part#	Mil Spec Size	Mil Spec Finish	Width		Thickness		Break Strength	Bulk Spool	Lbs/Spool
			Min	Max	Min	Max			
LT5-S1-FA-NT	1	A	.180"	.220"	.013"	.019"	85lbs	750'	0.75
LT5-S2-FA-NT	2	A	.099"	.121"	.011"	.017"	50lbs	750'	0.40
LT5-S3-FA-NT	3	A	.068"	.083"	.009"	.015"	35lbs	1,500'	0.45
LT5-S4-FA-NT	4	A	.050"	.061"	.007"	.013"	25lbs	1,500'	0.35
LT5-S1-FC-NT	1	C	.180"	.220"	.013"	.019"	85lbs	750'	0.85
LT5-S2-FC-NT	2	C	.099"	.121"	.011"	.017"	50lbs	750'	0.45
LT5-S3-FC-NT	3	C	.068"	.083"	.009"	.015"	35lbs	1,500'	0.50
LT5-S4-FC-NT	4	C	.050"	.061"	.007"	.013"	25lbs	1,500'	0.40

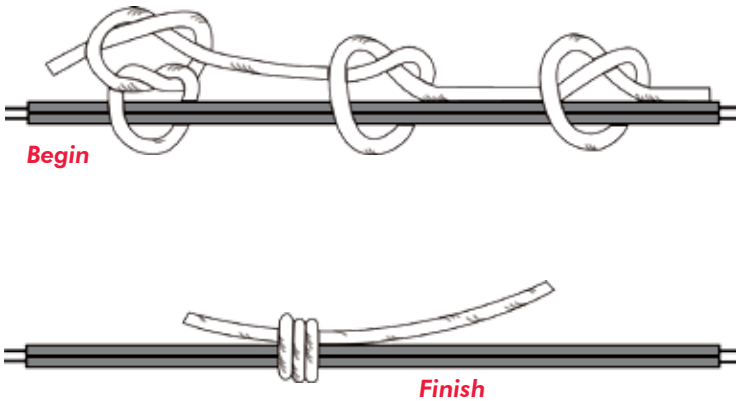


A-A-52080 Type I Nylon	A-A-52081 Type II Polyester	A-A-52082 Type III TFE	A-A-52083 Type IV Fiberglass	A-A-52084 Type V Nomex
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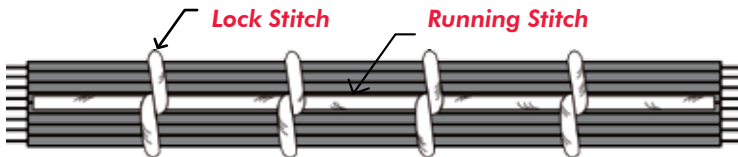
# How to...

## How to Get the Best Lacing Results?

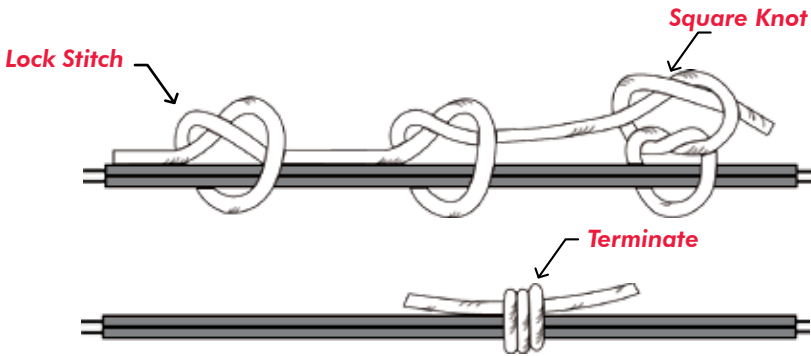
The basic concept of lacing is to use a flat cord to tie the cable bundle together. While lacing may be somewhat of a lost art - it's easy to learn, and you will be lacing your bundling projects in no time.



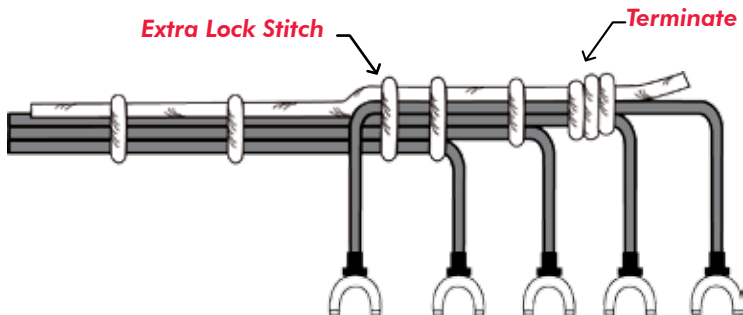
Get a bundle of wires together. Start the lacing near the end. There are several different types of knots that can be used, one of the easiest and quickest method is called a "square-knot with two lock stitches". Pull everything tight, and you should end up with the end as shown.



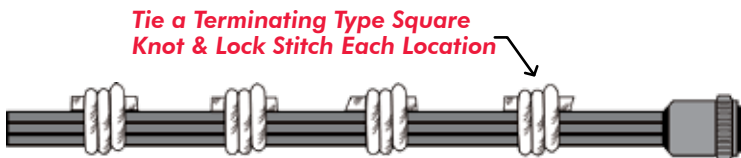
Once the knot is made, you simply make a series of lock stitches along the length of the bundle in equal intervals, again pulling tight as you go.



When you are at the end of the run, simply make another square knot to secure the lacing. Also you can put a dab of glue on the knot, which ensures the lacing will not come undone.



Once you master your lacing, you can try your skill at breaking out branches of the wiring harness along the lacing.



An alternate method is to make discrete "ties" where a start type knot is made every 1/2", and cut off so that each knot is independent. With this method, there is no chance of the lacing unraveling, but it is much more labor intensive.





**TECHFLEX**

*Braided Sleeving Products*

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