Available Materials

Nylon 6/6 — General Purpose
General purpose nylon 6/6 features light weight, high strength and a wide temperature range. It is halogen free so it does not release dangerous gases, such as chlorine, bromine, fluorine and iodine when burned. Nylon 6/6 is hydroscopic, and therefore, absorbs or releases moisture depending on its environment. Thus, the moisture level of the material will affect tensile strength, stiffness and elongation of the product.

Nylon 6/6 — Heat Stabilized
With similar properties and benefits as nylon 6/6, products manufactured with heat stabilized nylon 6/6 material have a chemical stabilizer added for higher continuous temperature applications.

Nylon 6/6 — UV Stabilized
Chemical inhibitors are used to give nylon 6/6 material added properties to fight against premature aging of products due to the effects of ultraviolet rays.

Nylon 6/6 — UV Stabilized *(2% Carbon for Military Specification)*
The physical properties of this material include carbon, which acts as a UV stabilizer, prolonging the life of the product under ultraviolet conditions. It also allows cable ties to meet the particular military specification for cable ties.

Nylon 6/6 — V0 Flame Retardant
This material meets UL 94V-0 flammability requirements. Flame retardant additives generally reduce tensile strength when compared to general-purpose nylon 6/6, but this resin has been formulated to minimize such effects.

Nylon 6/6 — Metal Detectable
Metal content blended through cable tie. Meets US FDA food contact material compliance. Used to help prevent possible contamination that may result in recalls. Often used in food processing, beverage, pharmaceuticl and cosmetic industries.

Nylon 6/6 — High Impact
Impact modifiers are added to increase flexibility. High impact nylon 6/6 has stable tensile strength due to its reduced influence from moisture. It is excellent for high vibration applications, as within the aircraft and automobile industries and performs better than nylon 6/6 against ultraviolet rays. Good for outdoor use.

Polypropylene
Polypropylene is used in environments where chemical effects on nylon are a concern. It is not affected by inorganic acids (hydrochloric), polyhydric alcohols (ethyleneglycol), neutral salts (sodium chloride) and basic salts (sodium bicarbonate). Polypropylene also resists a number of other chemicals with good results, although it has lower tensile strength than nylon 6/6 (about half). Polypropylene has good UV resistance.

Nylon 12 — UV Stabilized
Nylon 12 is resistant to chemicals and salts. Ideal for solar applications. Weather resistant grade, produced by the addition of stabilizers to the nylon resin.

Stainless Steel
Stainless Steel is used where corrosion, vibration, weathering, and temperature extremes are a concern. May be used for virtually any indoor, outdoor, or underground application. Available in both 304 and 316 Stainless Steel. Also available partially or fully coated with polyester.

TEFZEL® Fluoropolymer
TEFZEL® Fluropolymer ties feature a low smoke density with excellent flammability rating (UL 94V-0) and tolerates extreme high and low temperatures. TEFZEL® comes in an aqua blue color with an operating temperature of Min. -112°F (-80°C), Max. 338°F (170°C). TEFZEL® is a Registered trademark of E.I. du Pont de Nemours and Company.

Material Specifications

Material	Continuous* Operating Temperature Max. Min.	Tensile Strength at 73° F Dry as Molded ASTM D-638 (PSI)	UL Flame Rating	Oxygen Index %	Gamma Radiation Resistance	UV Resistance	Military, Federal, ASTM, **and FDA Specifications**
Nylon 6/6 — General Purpose (CT)	185° F –40° F 85° C –40° C	12,000	94V-2	28	1 x 10^5 Rads	Poor	ASTM D-4066PA0111 FDA CFR177.1500
Nylon 6/6 — Heat Stabilized (CTHS)	220° F –40° F 105° C –40° C	12,000	94V-2	26	1 x 10^5 Rads	Poor	ASTM D-4066PA0121
Nylon 6/6 — UV Stabilized (O)	185° F –40° F 85° C –40° C	12,000	94V-2	26	1 x 10^5 Rads	Good	ASTM D4066PA0191
Nylon 6/6 — 2% Carbon UV Stabilized (OO)	220° F –40° F 105° C –40° C	12,000	94V-2	26	1 x 10^5 Rads	Good	ASTM D-4066PA0181 MS3367/8
Nylon 6/6 — Flame Retardant (CTV)	185° F –40° F 85° C –40° C	10,800	94V-0	34	1 x 10^5 Rads	Poor	ASTM D-4066PA0110
Nylon 6/6 — High Impact	185° F –40° F 85° C –40° C	8,800	94-HB	19	1 x 10^5 Rads	Good	ASTM D-4066PA0150
Polypropylene — Chemical Resistant (CTPP)	185° F –40° F 85° C –40° C	3,400	94-HB	N/A	1 x 10^5 Rads	Good	ASTM D-4101PP0320 FDA CFR177.1520
Nylon 12 — UV Stabilized	176° F –40° F 80° C –40° C	5,800	94-HB	N/A	9 x 10^6 Rads	Good	ASTM D-4066PA411

* Elevated temperatures, over time, will affect materials' properties such as tensile strength, stiffness, elongation and appearance.

BURNDY® recommends the evaluation of cable ties in the actual application to determine the suitability of the tie for that application.

Material Performance Guide

Selection	Nylon 6/6 General Purpose	Nylon 6/6 Heat Stab.	Nylon 6/6 UV Stab.	Nylon 6/6 2% Carbon UV Stab.	Nylon 6/6 Flame Ret. V0	Nylon 6/6 High Impact	Poly-propylene	Nylon 12 UV Stab.
Tensile Strength	8	8	8	9	7	8	2	4
High Temp.	2	3	2	2	2	2	2	1
Flammability	5	5	5	5	10	2	2	2
UV Resistance	1	1	5	8	1	2	5	3
Radiation	3	3	3	3	3	3	6	3
Chemical	6	6	6	6	6	6	8	8
— Hydrocarbons	8	8	8	8	8	8	6	8
— Chlorinated	6	6	6	6	6	6	3	8
— Hydrocarbons	2	2	2	2	2	2	8	5
— Acids-Bases	6	6	6	6	6	6	8	6
— Salts	3	3	3	3	3	3	10	8
Relative Cost	Low	Low	Med.	Med.	Med.	Med.	Med.	Med.

1 = Least Recommended 10 = Most Recommended

The following chart is meant to help you understand BURNDY's cable tie catalog numbering system. Not every cable tie is available in every listed option. See below Catalog Numbering System Charts or contact BURNDY® Customer Service for more information.

Gray bars contain catalog number examples.

Type	Tensile	Bundle Dia.	Feature	Package	Color
CT	50	175	C		
CT = Nylon 6/6 Standard CTAS = Aerial Support CTHS = Nylon 6/6 Heat Stabilized CTV = Nylon 6/6 Flame Retardant UL94V-0 CTPP = Polypropylene CTSS = Stainless Steel CTNT = Nylon 12 CT-UG = Nylon 6/6 Universal Grade CMDT = Nylon 6/6 Metal Detectable CTZ = TEFZEL®	18 = 18 lbs. 30 = 30 lbs. 40 = 40 lbs. 50 = 50 lbs. 100 = 100 lbs 110 = 110 lbs. 120 = 120 lbs. 175 = 175 lbs. 225 = 225 lbs. 250 = 250 lbs. 450 = 450 lbs. 500 = 500 lbs. 675 = 675 lbs. 700 - 700 lbs. 800 = 800 lbs. 900 = 900 lbs.	075 = 3/4" 087 = 7/8" 100 = 1" 125 = 1-1/4" 137 = 1-3/8" 150 = 1-1/2" 175 = 1-3/4" 200 = 2" 225 = 2-1/4" 250 = 2-1/2" 300 = 3" 325 = 3-1/4" 350 = 3-1/2" 400 = 4" 425 = 4-1/4" 500 = 5" 600 = 6" 700 = 7" 750 = 7-1/2" 800 = 8" 900 = 9" 1000 = 10" 1100 = 11" 1200 = 12" 1300 = 13" 1400 = 14"	CPM = Center Push Mount DL = Double Loop EPR = Extended Pawl Releasable ID = Single Head ID ID2 = Double Head ID ID3 = Triple Head ID FL = ID Flag MH4 = Mounting Hole #4 MH6 = Mounting Hole #6 MH8 = Mounting Hole #8 MH10 = Mounting Hole #10 MH14 = Mounting Hole #14 PM = Push Mount Tie PML = Push Mount Tie w/Louvers PMW = Push Mount Tie w/Wing R = Releasable Tie LD = Ladder LP = Low Profile Tie PS = Positive Stop SSB = Stainless Steel Barb FC304 = Fully Coated 304 FC316 = Fully Coated 316 PC304 = Partially Coated 304 PC316 = Partially Coated 316 SSH = Stainless Steel Hook	V = 5 X = 10 Q = 25 L = 50 C = 100 B = 250 D = 500 M = 1000	0 = UV Black[1] 00 = UV Black[2] 02 = Red 1 = Brown 2 = Red 3 = Orange 4 = Yellow 5 = Green 6 = Blue 7 = Purple 8 = Gray 9 = Neon Green 10 = White 11 = Telco Gray 12 = Pink 20 = Black Blank = Natural

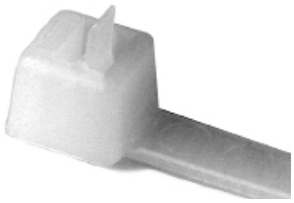
[1]Material: Nylon 6/6 — UV Stabilized

[2]Material: Nylon 6/6 — 2% Carbon UV Stabilized (Mil. Spec.)

Type	Bundle Diameter	Adhesive/Mounting Type	Figure #	Package	Color
CTB	100	RA	C		0
CTB = Cable Tie Base CTBR = Cable Tie Base Rectangular CTBRWR = Cable Tie Base Weather Resistant	075 = 3/4" 125 = 1-1/4" 150 = 1=1/2"	RA = Rubber Adhesive AA = Acrylic Adhesive S = Screw Mounted	#1 #2 #3	L = 50 C = 100 D = 500 M = 1000	0 = UV Black Blank = Natural

UNIRAP™ Releasable Cable Ties Type CT-R

Perfect for prototype construction, releasable ties are ideal for temporary installations. Releasable ties are good for applications where service requires adding or subtracting wires from an existing bundle.



Std Pkg Catalog Number	Material	Color	Max Bundle Diameter In. [mm]	Min Tensile Strength (lbs)	Length Inches [mm]	Width Inches [mm]
CT50175RC	Nylon 6/6	Natural	2.13 [54.1]	50	8.00 [198]	0.19 [4]
CT50175RC0		UV Black				
CT50137RC		Natural	1.40 [35.6]	50	6.00 [151]	
CT50400RC		Natural	4.00 [101.6]	50	15.20 [387]	
CT50400RC0		UV Black				
CT250200RQ		Natural	2.52 [64.0]	250	9.50 [241]	0.49 [12.4]
CT250200RQ0		UV Black				
CT250500RQ		Natural	5.00 [127.0]	250	20.00 [509]	
CT250500RQ0		UV Black				
CT250600RQ		Natural	6.00 [152.4]	250	24.30 [618]	
CT250600RQ0		UV Black				
CT250800RQ		Natural	8.00 [203.2]	250	28.50 [724]	
CT250800RQ0		UV Black				
CT2501000RQ		Natural	9.76 [248.0]	250	32.60 [830]	

UNIRAP™ Metal Detectable
Type CMDT

These ties are perfect for use in consumable products such as food processing applications, beverage, pharmaceutical, and cosmetic industries. The metal detectable ties are an excellent choice and are US FDA food contact material compliant*.

*Metal detectable material complies with the compositional requirements of US FDA regulations for Direct Food Contact; 21 CFR 177.1500 and 21 CFR 184.1375.
Customer is responsible for ensuring the setting on metal detectable machines is adjusted and monitored for wet or dry products or environments, ferrous and non ferrous metals, type of food/products, packaging material speed, and orientation of scanned product.

Catalog Number (100 per package)	Material	Color	Max Bundle Diameter In. [mm]	Min Tensile Strength (lbs)	Length Inches [mm]	Width Inches
CMDT18075C5	Nylon 6/6 Metal content blended throughout	Teal	.87 [22.2]	18	4.12 [104.7]	.09
CMDT40225C5			2.47 [60.3]	40	8.87 [225.4]	.14
CMDT50175C5			1.87 [47.6]	50	7.56 [192.0]	.18
CMDT50300C5			3.00 [77.7]	50	11.25 [285.7]	.18
CMDT50400C5			4.00 [101.6]	50	14.25 [361.9]	.18
CMDT120400C5			4.00 [101.6]	120	15.09 [383.3]	.30