

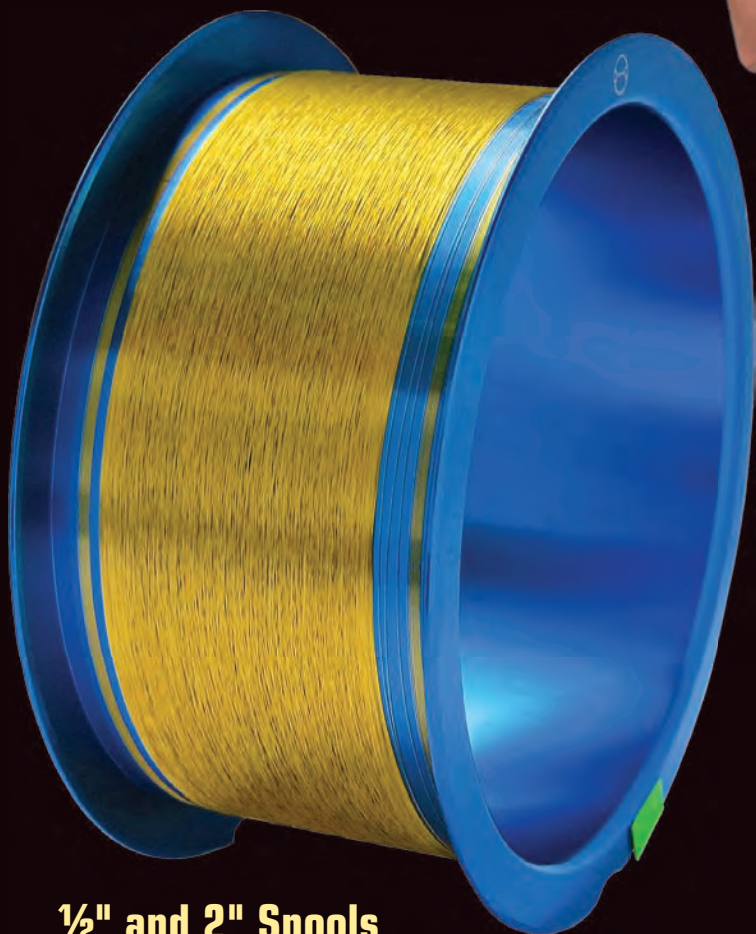
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GOLD • ALUMINUM

# BONDING WIRE

**FOR WEST•BOND®  
MACHINES**



**½" and 2" Spools**



Made by  **TANAKA**

2024-A



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TopLine offers bonding wire made by Tanaka to universities, microelectronic labs and small volume users. Easy to order. Yes. Just one spool is OK - Contact us today.

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Tanaka is the world's premier manufacturer of bonding wire to the semiconductor industry. Tanaka offers a full range of Gold (Au) and Aluminum (Al) covering all applications of wedge and ball bonding.

### Al-1% Si - Aluminum Wire

Small diameter Al-1% Si wire in diameters ranging from 18um to 80um. Good corrosion resistance. Uniform distribution of Si and stable mechanical properties.

### Au Gold Ribbon Wire

Flat aluminum (Al) and Gold (Au) is available for power device applications. Excellent corrosion resistance and satisfactory surface smoothness.

### Start-End Spool

Green tape indicates start of spool. Red tape is the end.

### Au Gold Wire

4N gold bonding wire in a range of diameters from 15um to 50um. Many specialty applications including stable stitch, fine-pitch, super low loop and high reliability applications.

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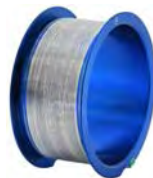
Contact TopLine for technical support and questions for applications involving special needs. We look forward to assisting you. Email [Tanaka@TopLine.tv](mailto:Tanaka@TopLine.tv) Or call 1-800-776-9888

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## Find it Fast



**GLD-H Type  
Gold Au (4N)  
High Performance Wedge**  
[Page 4 ~ 5](#)



**TABN Type  
Aluminum Al-1% Si  
Bonding Wire**  
[Page 6 ~ 7](#)



**AuR Type  
Gold Au Ribbon  
Flat Bonding Wire**  
[Page 8 ~ 9](#)

Contact:

### TopLine Corporation

95 Highway 22 W.  
Milledgeville, GA 31061 USA

Tel: +1-800-776-9888

Email: [Tanaka@TopLine.tv](mailto:Tanaka@TopLine.tv)

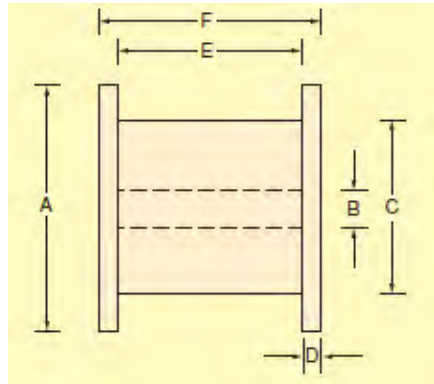
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# Spools



## Spool Dimensions

Spool Material	Type	A Flange Diameter	B Shaft Diameter	C Hub Diameter	D Hub Thickness	E Winding Width	F Overall Width	Style	Part Code
Aluminum Double Flange	2-inch	58.5mm	48.8mm	50.3mm	0.75mm	26.4mm	27.9mm	AL-2W	A
	½-inch	17.4mm	12.7mm	13.5mm	0.40mm	18.3mm	19.1mm	HALF	H

Spool A	Spool H
<p><b>AL-2 Double Flange</b> Anodized Aluminum 2" x 1"</p>	<p><b>HALF-INCH</b> 1/2" x 3/4"</p>

# GLD-H Type High Performance Wedge Bonding Wire



Ø Diameter ±1% µm	Breaking Load (gf)	Breaking Load (mN)	Elongation EL (%)	Length		Spool	Part Number	Order Nr
				Meter	Feet			
Ø 18µm (Ø 0.7 mil)	4.0 gf Min	39 mN Min	3.5% max	25m	75ft	½-inch	GLD-H-18H25 GLD-H-18H50 GLD-H-18A100	309189 309180 309181
				50m	150ft	½-inch		
				100m	328ft	2-inch		
Ø 20µm (Ø 0.8 mil)	6.0 gf Min	59 mN Min	3.5% max	25m	75ft	½-inch	GLD-H-20H25 GLD-H-20H50 GLD-H-20A100	309209 309200 309201
				50m	150ft	½-inch		
				100m	328ft	2-inch		
Ø 25µm (Ø 1.0 mil)	16 gf Min	156 mN Min	3.5% max	10m	33ft	½-inch	GLD-H-25H10 GLD-H-25H25 GLD-H-25H50 GLD-H-25A100	309258 309259 309250 309251
				25m	75ft	½-inch		
				50m	150ft	½-inch		
				100m	328ft	2-inch		
Ø 30µm (Ø 1.2 mil)	20 gf Min	196 mN Min	3.5% max	50m	150ft	½-inch	GLD-H-30H50 GLD-H-30A100	309300 309301
				100m	328ft	2-inch		
Ø 32µm (Ø 1.25 mil)	23 gf Min	225 mN Min	3.5% max	50m	150ft	½-inch	GLD-H-32H50 GLD-H-32A100	309320 309321
				100m	328ft	2-inch		
Ø 35µm (Ø 1.4 mil)	27 gf Min	264mN Min	4.5% max	50m	150ft	½-inch	GLD-H-35H50 GLD-H-35A100	309350 309351
				100m	328ft	2-inch		
Ø 38µm (Ø 1.5 mil)	35 gf Min	343mN Min	4.5% max	50m	150ft	½-inch	GLD-H-35H50 GLD-H-35A100	309380 309381
				100m	328ft	2-inch		
Ø 50µm (Ø 2.0 mil)	45 gf Min	441 mN Min	4.5% max	50m	150ft	½-inch	GLD-H-50H50 GLD-H-50A100	309500 309501
				100m	328FT	2-inch		

## Spool Information

Type	A Flange Diameter	B Shaft Diameter	C Hub Diameter	D Hub Thickness	E Winding Width	F Overall Width	Style	Spool Code
	58.5mm	48.8mm	50.3mm	0.75mm	26.4mm	27.9mm	AL-2(W)	A
	17.4mm	12.7mm	13.5mm	0.40mm	18.3mm	19.1mm	HALF-INCH	H

Note 1: Round Wire is wound forward/cross pattern (Cross wound-cross hatch wind)

Note 2: Start wire on spool with Green tape. End wire on spool with Red tape.

- INFO**
- Note 1: For wedge to wedge applications that require maximum 3.5% elongation with Ø18~30µm
  - Note 2: Excellent breaking load for wedge bonding applications.
  - Note 3: Standard Tolerance: Ø12.5µm~38µm ±1 µm , Ø50µm ±2 µm
  - Note 4: Wire Diameter: 18µm , 20µm , 23µm 25µm , 28µm , 30µm , 32µm , 33µm , 35µm , 50µm

# GLD-H Type High Performance Wedge Bonding Wire



Part Number System				
<u>GLD-H</u>	-	<u>25</u>	<u>H</u>	<u>50</u>
Type		Ø Diameter µm	Spool Type	Length Meters
<b>Gold 4N (Au99.99)</b>  <b>GLD-H = High Performance Wedge Bonding Wire</b>		<b>Code Mil</b>	<b>Aluminum Spool</b>	<b>Meters Feet Spool</b>
		12.5 0.5mil	A = 2"x1" AL-2(W)	10 33ft (H)
		15 0.6mil	H = 1/2" AL-1/2	25 75ft (H)
		18 0.7mil		50 150ft (H)
		20 0.8mil		100 328ft (A)
		23 0.9mil		
		25 1.0mil		
		28 1.1mil		
		30 1.2mil		
		32 1.25mil		
		33 1.3mil		
		35 1.4mil		
		38 1.5mil		
	50 2.0mil			
				Meters controlling Length

Order Number				
<u>3</u>	<u>0</u>	<u>9</u>	<u>25</u>	<u>0</u>
Alloy	Shape	Model	Ø Diameter	Length
<u>Code • Description</u> 3 = Gold (Au)	<u>Code Description</u> 0 = Round Wire GLD-H  4 = Round Wire GHD	<u>Gold Wire (Au)</u> 9 = GLD-H	<u>µm Mil</u> 12.5 0.5mil 15 0.6mil 18 0.7mil 20 0.8mil 25 1.0mil 30 1.2mil 32 1.25mil 35 1.4mil 38 1.5mil 50 2.0mil	<u>Code Meters Feet</u> 9 = 25m (75ft) 0 = 50m (150ft) 1 = 100m (328ft) 8 = 10m (33ft)
				Meters controlling Length

# TABN Type Aluminum Al-1% Si Bonding Wire



Ø Diameter ±1% µm	Breaking Load (gf)	Breaking Load (mN)	Elongation EL (%)	Length Meters	Length Feet	Spool	Part Number	Order Nr
Ø 18µm (Ø 0.7 mil)	6.0~7.5 gf	66~71mN	0.5~4.5%	25m	75ft	½-inch	TABN-18H25	403189
				50m	150ft	½-inch	TABN-18H50	403180
				100m	328ft	2-inch	TABN-18A100	403181
Ø 20µm (Ø 0.8 mil)	8.0~10 gf	79~98mN	0.5~4.5%	25m	75ft	½-inch	TABN-20H25	403209
				50m	150ft	½-inch	TABN-20H50	403200
				100m	328ft	2-inch	TABN-20A100	403201
Ø 25µm (Ø 1.0 mil)	13~15 gf	127~147 mN	0.5~4.5%	10m	33ft	½-inch	TABN-2510	403258
				25m	75ft	½-inch	TABN-25H25	403259
				50m	150ft	½-inch	TABN-25H50	403250
				100m	328ft	2-inch	TABN-25A100	403251
Ø 30µm (Ø 1.2 mil)	17~19 gf	167~186 mN	0.5~4.5%	25m	75ft	½-inch	TABN-30H25	403309
				50m	150ft	½-inch	TABN-30H50	403300
				100m	328ft	2-inch	TABN-30A100	403301
Ø 32µm (Ø 1.25 mil)	19~21 gf	186~206 mN	0.5~4.5%	25m	75ft	½-inch	TABN-32H25	403329
				50m	150ft	½-inch	TABN-32H50	403320
				100m	328ft	2-inch	TABN-32A100	403321
Ø 33µm (Ø 1.3 mil)	19~21 gf	186~206 mN	0.5~4.5%	25m	75ft	½-inch	TABN-32H25	403339
				50m	150ft	½-inch	TABN-32H50	403330
				100m	328ft	2-inch	TABN-32A100	403331
Ø 35µm (Ø 1.4 mil)	26~29 gf	255~284 mN	0.5~4.5%	25m	75ft	½-inch	TABN-35H25	403359
				50m	150ft	½-inch	TABN-35H50	403350
				100m	328ft	2-inch	TABN-35A100	403351
Ø 38µm (Ø 1.5 mil)	31~44gf	304~333 mN	0.5~5.0%	25m	75ft	½-inch	TABN-38H25	403389
				50m	150ft	½-inch	TABN-38H50	403380
				100m	328ft	2-inch	TABN-38A100	403381
Ø 50µm (Ø 2.0 mil)	147~53 gf	461~520 mN	0.5~6.0%	25m	75ft	½-inch	TABN-50H25	403509
				50m	150ft	½-inch	TABN-50H50	403500
				100m	328ft	2-inch	TABN-50A100	403501

## Spool Information

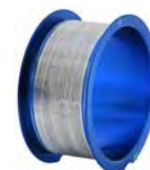
Type	A Flange Diameter	B Shaft Diameter	C Hub Diameter	D Hub Thickness	E Winding Width	F Overall Width	Style	Part Nr Code
	58.5mm	48.8mm	50.3mm	0.75mm	26.4mm	27.9mm	AL-2(W)	A
	58.5mm	48.8mm	50.3mm	0.75mm	45.5mm	47.0mm	AL-4	B
	17.4mm	12.7mm	13.5mm	0.40mm	18.3mm	19.1mm	HALF-INCH	H

Note 1: Round Wire is wound forward/cross pattern (Cross wound-cross hatch wind)

Note 2: Start wire on spool with Green tape. End wire on spool with Red tape.

- INFO**
- Note 1: Uniform distribution of Si and stable mechanical property.
  - Note 2: TABN with nickel doping for better corrosion resistance under PCT.
  - Note 3: Standard Tolerance: Ø18µm~38µm ±1 µm    Ø40µm~50µm ±2 µm
  - Note 4: Wire Diameter available: 18µm , 20µm , 25µm , 28µm , 30µm , 32µm , 35µm , 38µm , 40µm , 50µm

# TABN Type How to Order



Part Number System				
<u>TABN</u>	-	<u>25</u>	<u>H</u>	<u>50</u>
Type		Ø Diameter µm	Spool Type	Length Meters
<b>TABN =</b> <b>Aluminum Al-1% Si</b> With Nickel Doping		<u>Code</u> <u>Mil</u> <b>18</b> 0.7mil <b>20</b> 0.8mil <b>25</b> 1.0mil <b>28</b> 1.1mil <b>30</b> 1.2mil <b>32</b> 1.25mil <b>35</b> 1.4mil <b>38</b> 1.5mil <b>40</b> 1.6mil <b>50</b> 2.0mil	<b>Aluminum Spool</b> <b>A = 2"x1" AL-2(W)</b> <b>H = 1/2" AL-1/2</b>	<u>Meters</u> <u>Feet</u> <u>Spool</u> <b>10</b> 33ft (H) <b>25</b> 75ft (H) <b>50</b> 150ft (H) <b>100</b> 328ft (A) <b>300</b> 1000ft (A)
				Meters controlling Length

Order Number				
<u>4</u>	<u>0</u>	<u>3</u>	<u>25</u>	<u>0</u>
Alloy	Shape	Model	Ø Diameter	Length
<u>Code</u> • <u>Description</u> <b>4 = Aluminum</b>	<u>Code</u> <u>Description</u> <b>0 = Round Wire</b>	<u>Type</u> <b>3 =TABN</b> Al-1%Si With Nickel	<u>µm</u> <u>Mil</u> <b>18</b> 0.7mil <b>20</b> 0.8mil <b>25</b> 1.0mil <b>28</b> 1.1mil <b>30</b> 1.2mil <b>32</b> 1.25mil <b>35</b> 1.4mil <b>38</b> 1.5mil <b>40</b> 1.6mil <b>50</b> 2.0mil	<u>Code</u> <u>Meters</u> <u>Feet</u> <b>9=</b> 25m (75ft) <b>0=</b> 50m (150ft) <b>1=</b> 100m (328ft) <b>8 =</b> 10m (33ft)
				Meters controlling Length

# AuR Type Gold (Au) Ribbon Bonding Wire 4N



Size Width	Size Thickness	Breaking Load (gf)	Breaking Load (N)	Elongation EL (%)	Length Meters	Length Feet	Part Number	Order Nr
12.7um 0.5mil	38um 1.5mil	7.2~15.0 gf	71~147 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-38x12.7H10 AuR-38x12.7A50	326380 316380
	50um 2.0mil	9.5~19.7 gf	94~193 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-50x12.7H10 AuR-50x12.7A50	326500 316500
	75um 3.0mil	14.3~29.5 gf	141~289 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-75x12.7H10 AuR-75x12.7A50	326520 316520
	100um 4.0mil	19.1~39.4 gf	188~386 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-100x12.7H10 AuR-100x12.7A50	326530 316530
	125um 5.0mil	23.8~49.2gf	234~482 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-125x12.7H10 AuR-125x12.7A50	326540 316540
	150um 6.0mil	28.6~59.2 gf	282~579 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-150x12.7H10 AuR-150x12.7A50	326550 316550
25um 1.0mil	50um 2.0mil	18.8~38.8 gf	185~380 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-50x25H10 AuR-50x25A50	326100 316100
	75um 3.0mil	28.1~58.1 gf	276~569 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-75x25H10 AuR-75x25A50	326110 316110
	100um 4.0mil	37.5~77.5 gf	368~686 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-100x25H10 AuR-100x25A50	326120 316120
	125um 5.0mil	46.9~96.9 gf	460~950 N	≥ 2.0%	10m 50m	33ft 150ft	AuR-125x25H10 AuR-125x25A50	326130 316130
	150um 6.0mil	56.3~116 gf	553~1140N	≥ 2.0%	10m 50m	33ft 150ft	AuR-150x25H10 AuR-150x25A50	326140 316140
	200um 8.0mil	75.0~155 gf	736~1520N	≥ 2.0%	10m 50m	33ft 150ft	AuR-200x25H10 AuR-200x25A50	326150 316150
250um 10.0mil	93.8~194 gf	936~1900N	≥ 2.0%	10m 50m	33ft 150ft	AuR-250x25H10 AuR-250x25A50	326160 316160	
125um 5.0mil	50um 2.0mil	9.38~194 gf	920~1900N	≥ 2.0%	10m 50m	33ft 150ft	AuR-125x50H10 AuR-125x50A50	326220 316220

## Spool Information

Type	A Flange Diameter	B Shaft Diameter	C Hub Diameter	D Hub Thickness	E Winding Width	F Overall Width	Style	Part Nr Code
	58.5mm	48.8mm	50.3mm	0.75mm	26.4mm	27.9mm	AL-2	A
	17.4mm	12.7mm	13.5mm	0.40mm	18.3mm	19.1mm	HALF-INCH	H

Note 1: Round Wire is wound forward/cross pattern (Cross wound-cross hatch wind)

Note 2: Start wire on spool with Green tape. Note 3: End wire on spool with Red tape.

INFO

**Note 1: AuR Type Au Gold ribbon is fabricated using dry process. Provides an excellent solution for RF devices. No lubrication oils are introduced during fabrication. Excellent corrosion resistance. Tanaka AuR ribbon is made using a rolled process. Edges are smooth without sharp edges. Good surface smoothness.**

**Note 2: Alternative Gold Ribbon with Be (Beryllium) available as Type AuR-3 Type 353xxx.**



# AuR Type How to Order



Part Number System													
<u><b>AuR</b></u>	<b>-</b>	<u><b>100x12.7</b></u>	<u><b>H</b></u>	<u><b>10</b></u>									
Type		Size Code	Spool Type	Length Meters									
<b>AuR = Gold Au Bonding Ribbon 4N</b>		<u><b>W x Th</b></u> 25~200 x 12.7um 50~250 x 25um 125 x 50um  <i>* See Other Sizes</i>	<u><b>Aluminum Spool</b></u> <b>A</b> = 2"x1" AL-2 <b>H</b> = 1/2" HALF	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Meters</u></th> <th style="text-align: left;"><u>Feet</u></th> <th style="text-align: left;"><u>Spool</u></th> </tr> </thead> <tbody> <tr> <td><b>10</b></td> <td>33ft</td> <td>(H)</td> </tr> <tr> <td><b>50</b></td> <td>150ft</td> <td>(A)</td> </tr> </tbody> </table> <p>Meters controlling dimension</p>	<u>Meters</u>	<u>Feet</u>	<u>Spool</u>	<b>10</b>	33ft	(H)	<b>50</b>	150ft	(A)
	<u>Meters</u>	<u>Feet</u>	<u>Spool</u>										
<b>10</b>	33ft	(H)											
<b>50</b>	150ft	(A)											

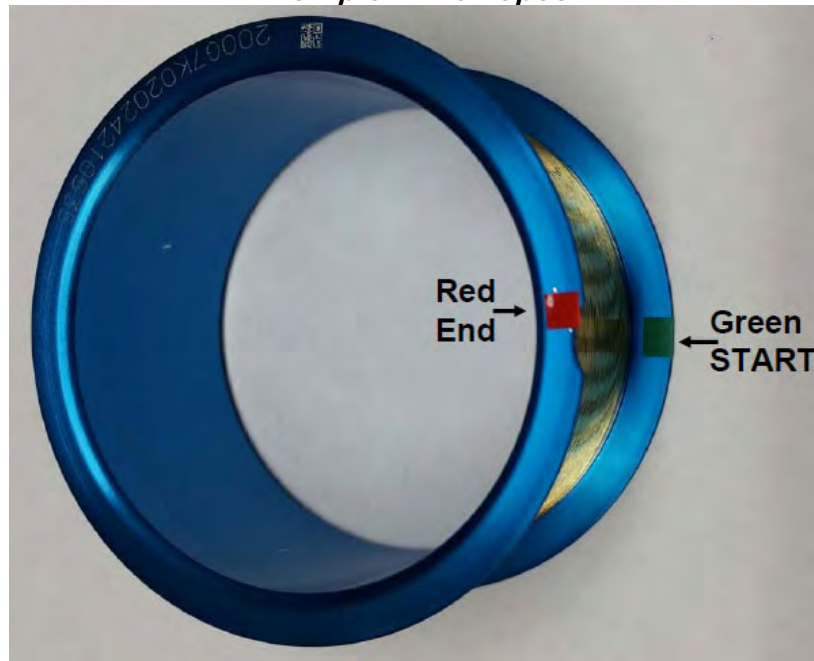
Order Number				
<u><b>3</b></u>	<u><b>2</b></u>	<u><b>6</b></u>	<u><b>53</b></u>	<u><b>0</b></u>
Alloy	Shape	Model	Size Code	Length
<u>Code • Description</u> <b>3</b> = Gold	<u>Code Description</u> <b>1</b> = Flat Wire 2-inch <b>(A)</b> Spool  <b>2</b> = Flat Wire 1/2-inch <b>(H)</b> Spool	<u>Type</u> <b>6</b> =AuR Au Ribbon	<u>Code Width x Thick</u> <b>51</b> = 25 x 12.7um <b>38</b> = 38 x 12.7um <b>50</b> = 50 x 12.7um <b>52</b> = 75 x 12.7um <b>53</b> = 100 x 12.7um <b>55</b> = 150 x 12.7um <b>10</b> = 50 x 25um <b>11</b> = 75 x 25um <b>12</b> = 100 x 25um <b>13</b> = 125 x 25um <b>14</b> = 150 x 25um <b>15</b> = 200 x 25um <b>16</b> = 250 x 25um	<u>Code Meters Feet</u> <b>326 Series Spool "H"</b> <b>0</b> = 10m (33ft)  <b>316 Series Spool "A"</b> <b>0</b> = 50m (150ft) <b>3</b> = 30m (100ft)  Meters controlling

# Start-End COLOR CODE

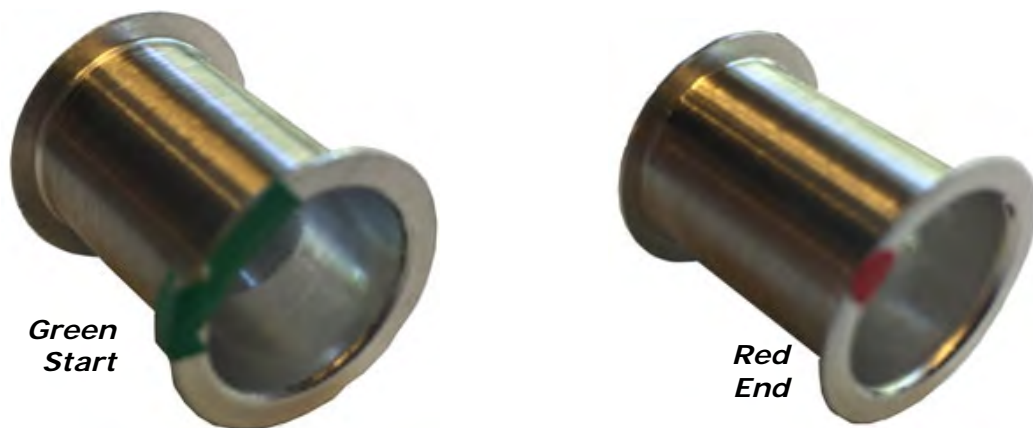
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***Green = Start***  
***Red = End***

***Example 2-inch Spool***



***Example 1/2-inch Spool***





## Bonding Wire Available Worldwide

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<b>Ireland</b> IPP Ltd Tel +353 21-423 2233 sales@ippGroupLtd.com	<b>Poland</b> Semicon Tel +48 (22) 615-64-31 info@semicon.com.pl	<b>United Kingdom</b> Kaisertech Tel +44-(0)23-8065-0065 sales@kaisertech.co.uk
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<b>Australia &amp; New Zealand</b> Suba Engineers Tel +61-2-9790-0900 Tel +61-3-9583-9311 SubaSyd@suba.com.au	<b>Japan</b> ADY Tel +81-06-6397-0412 TopLine@ADY-JP.com	<b>Singapore</b> Dou Yee Enterprises Tel +65-6444-2678 marketing@douyee.com
<b>Hong Kong</b> Borison Automation Tel +852 2687-0948 TopLine@borison.com	<b>Korea</b> Jin Trading Tel +82 (031) 499-5633 Jeong6651@naver.com	<b>Taiwan</b> Zinby International Tel +886-932-808 166 Mack@zinby.com.tw
<b>India</b> EMST Marketing Pvt. Ltd Tel +91 95 955 25010 contact@emstoline.com	<b>Malaysia</b> Dou Yee Enterprises Tel +65-6444-2678 marketing@douyee.com	<b>Thailand</b> Dou Yee Enterprises Tel +65-6444-2678 marketing@douyee.com

### TopLine Corporation

Tel: +1-800-776-9888

Email: Tanaka@TopLine.tv

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# BONDING WIRE

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**EASY TO  
ORDER**



**YES  
ONE SPOOL**

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