Call Toll-Free 1-800-828-7159



SOLDER

Choose from Canfield or Amerway Brands of solder. You get full tin content and no short spools. Most people have definite preferences for their solder. These companies produce quality solder, and are widely accepted throughout the stained glass industry. Most people just starting out in stained glass achieve good results using 60/40 or 63/37 with their lower melting points.

Amerway Solder

AMERWAY is a leading national

producer of quality metals for the electronics, jewelry, and stained glass fields. Amerway has taken their abilities in the specialty metals field and produced a high quality solder that is very cost effective.

SAPPHIRE 60/40 SOLDER (#MET 6040A) is 60% tin and the balance lead. A consistent and smooth flowing solder. 60/40 solder is the best selling alloy in the stained glass industry. Melts at 372°F, solidifies at 361°F. The "pasty range" (most solders melt at a higher temperature than they freeze at ... the difference between these figures is the pasty range) of 60/40 is smaller than that of 50/50, resulting in a smoother bead.

JUBILEE 63/37 SOLDER (#MET 6337A) is "eutectic" ... in other words, it freezes at the same temperature it melts at (361°F). It reduces the chance of lumpy solder lines. The best for decorative soldering or complicated foil projects.

ONYX 50/50 SOLDER (#MET 5050A), while not widely used, is often preferred because of it's lower cost. Since it has a higher melting point (melts at 413°F, solidifies at 361°F) it is not recommended for lead came work, but some people prefer to solder the back side of their foiled work with 50/50 first, then solder the front side with 60/40. The difference in melting points helps eliminate solder "run-thru" to the back side.

EMERALD 97/3 LEAD FREE SOLDER

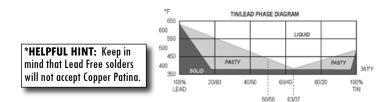
(#MET EMERALD), a cost effective alternative for lead free stained glass work that flows similar to 50/50 solder. 97% Tin, 3% Copper alloy. Melts at about 446°F, so use a 100 watt iron.

RUBY 97/2.75/.25 LEAD FREE SOLDER

(#MET RUBY), a cost effective alternative for lead free stained glass work. 97% Tin, 2.75% Copper, .25% Silver alloy. The addition of silver greatly improves the flow characteristics, lowers the melting point and provides greater tensile strength. Melts at about 442°F.

TOURMALINE 99.3/0.70 LEAD FREE SOLDER

(#MET TOURM), an alloy of 99.3% Tin, 0.7% Copper + secret ingredients improve fluidity and leave a high sheen finish. Melts at about 445°F.



Canfield Solder

CANFIELD SOLDER has been the industry standard for decades. Canfield has pioneered many new solders specifically for the stained glass industry. Used by professional studios across the country.

60/40 SOLDER (#MET 6040C) by Canfield has no competition for ease of flow and silvery finish. Found in professional studios everywhere. Promoted heavily for new hobbyists because of it's outstanding workability. Melts at 376°F, solidifies 361°F.

CANFIELD ULTIMATE SOLDER (#MET ULT) is a

patented formula with over 62% tin content. This solder has the "instant freeze" of 63/37 with improved melting and flow. Works outstanding with copper foil, a great solder for beginners. Melts and solidifies at 360° F.

50/50 SOLDER (#MET 5050C) from Canfield is made with special care and has an extra bit of antimony added to enhance flow characteristics. Many people prefer Canfield's 50/50 to other brands of 60/40. Melts at 421°F, solidifies at 361°F.

QUICK SET SOLDER (#MET QUIK SET) has the flow characteristics of 60/40 solder and the instant freeze of 63/37, all at a lower price. Canfield has sought a patent on this unique formula. Many 60/40 users have switched to this less expensive alloy. Melts at 392°F, solidifies at 361°F.

SILVERGLEEM* (#MET SILVER) is truly bright and silver. Best for working with jewelry because of it's high silver content (4%) and no-lead formulation. SOLD ON 1/2 POUND SPOOLS ONLY! Melts at 430°F, flows and works like 50/50.

CANFIELD DGS LEAD FREE SOLDER* (#MET DGS)

a *lead free* alloy that is gaining wide acceptance in the market due to superior flow characteristics and a bright finish. A cost effective and workable alternative for people (especially expectant women and schools) who have reservations about the lead content in their solder. Alloy of Tin, Copper, Silver, Antimony & Bismuth. Melting point is 490°F, so use a 100 watt iron. Solidifies at 415°F.

SOLDER MAGIC ACTION TIN (#0678) is one of those products that once you try it, you'll ask "Where has this been all of my life?". Perfect for tinning vase caps, copper or brass filigrees, copper foil overlays and more. Solder Magic Action Tin is powdered solder suspended in a thin paste flux. Simply stir, apply with flux brush and hit it with your iron. Your piece is instantly tinned and ready to go! Sold in an 8 oz jar. It really works wonders!













Toll-free: 1-800-828-7159









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MERWAYINC.



COPPER FOIL

Section D

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Venture makes the most widely accepted foil for stained glass. The copper alloy has high tensile strength with a soft temper. This makes for a superior foil, easy to work with and unmatched in the art glass market. Sold in 36 yd rolls.

or mirror.

point.

MasterFoil DWS

Venture Rope"

MasterFoil Olus

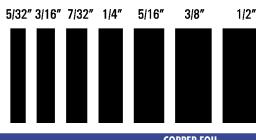
5/16"

New Wave

MEALS

MASTERFOIL has an extra thick, heat resistant adhesive providing quick stick initial tack and greater bonding power. MasterFoil is made in three thicknesses:

- 1.5 MIL FOIL is the most popular thickness in the US. If you use a foiling machine or hand foiler, use 1.5 mil foil for best results. The preferred foil for lampshade work. Comes on a roll with red core.
- 1.25 and 1.0 MIL FOILS are thinner and fold over the edge easier. Thinner foil is often easier for beginners. 1.25 mil foil comes on roll with orange core, 1.0 mil foil rolls have purple cores.



COPPER FOIL								
Please order using the catalog number shown below each style of foil for the size you need.								
SIZE	1.5 MIL MASTERFOIL	1.25 MIL MASTERFOIL	1 MIL MASTERFOIL	BLACK BACK FOIL	SILVER BACK FOIL			
5/32″	Not Avail	Not Avail	#0640	Not Avail	Not Avail			
3/16″	#0731	#0651	#0641	#0531	#0631			
7/32″	#0732	#0652	#0642	#0532	#0632			
1/4″	#0733	#0653	#0643	#0533	#0633			
5/16″	#0734	Not Avail	Not Avail	#0534	#0634			
3/8″	#0735	Not Avail	Not Avail	#0535	#0635			
1/2″	#0736	Not Avail	Not Avail	#0536	#0636			
NEW WAVE	#0737	Not Avail	Not Avail	#0537	#0637			

Foiling Accessories

HAND FOILERS and FOIL CRIMPER from Glastar. These tools perfectly center the

foil on the edge of your glass. Hand Foilers don't fold the foil over the edge, but center the foil on the edge. For Hand Foilers order for the size foil you use:

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Toll-free: 1-800-828-7159

Foil Crimper (#0829) folds and burnishes

See page C-15 for more choices and styles of foil crimpers and burnishers.

(#0820) accurately applies your foil to

the edge of the glass and folds it over. Can cut your foiling time by nearly half. Accepts 1/4", 7/32" and 3/16" foil (any two rolls at a time).

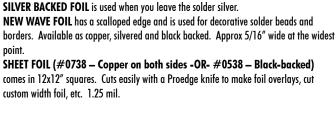


COPPER FOIL DISPENSER (#0739) holds up to 7 rolls of foil, neatly dispensed from slots on the bottom. Keeps foil orderly and tangle free. Works great with Hand Foilers.

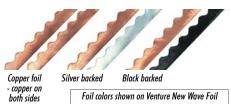


Visit Us On The Internet:

/entureTape



the copper edge that shows from the back side of your work when using clear glass



VENTURE SPECIALTY FOIL includes colored

Color-backed foil was developed to overcome

BLACK BACKED FOIL is used when you use black patina.

foils, New Wave foil and copper foil sheets.

DISCONTINUED 3/16" Hand Foiler (#0825) 7/32" Hand Foiler (#0826)

1/4" Hand Foiler (#0827)



THE GLASTAR FOILING MACHINE



0/30/2019

METALS

LEAD CAME

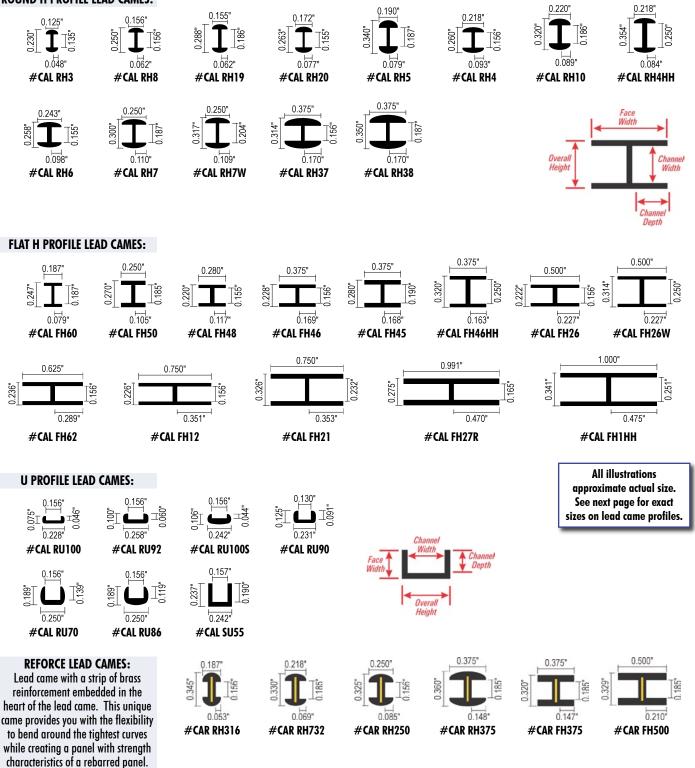
CASCADE starts with 100% pure lead to which they add exacting quantities of Tin, Antimony, Copper and Bismuth to create a lead that is stretchable to the breaking point yet maintains a fine grain strength. Their alloy also prevents

oxidation making it easier to solder, allows for a longer shelf life and gives you a brighter finish. The BRITE ALLOY that we stock from Cascade has approximately 4% Antimony giving it a brighter finish and stiffness, which adds strength to your smaller pieces.

ROUND H PROFILE LEAD CAMES:

Can be cut using lead nippers.

Toll-free: 1-800-828-7159



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4/24/2019

Section D



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CATALOG NUMBERS FOR CASCADE LEAD CAME When ordering came, please use the catalog number that corresponds to the quantity (six foot length, 15lb spool, or 45 lb–6ft box) desired.										
When ordering came, please us		please use the catalo	og number that corresponds to the quar				5 lb–6ft box) desired. DIMENSIONS			
			15lb SPOO	# OF 6ft	45lb 6FT B	0X # OF 6ft		DIMEN		CHANNEL
SIZE AND DESCRIPTION	ALLOY	CAT# 6FT	CAT#	LENGTHS	CAT#	LENGTHS	FACE	CHANNEL		DEPTH
ROUND "H"	ALLOI			LENGING		LENGTIN	TAGE	CHAINTEE	IIEIOIII	
1/8″ RH	#2 – STD	CAL RH3	CAL RH3-15	38	-	-	0.125	0.135	0.230	0.048
5/32″ RH	#2 - STD	CAL RH8	CAL RH8-15	33	_	_	0.156	0.156	0.250	0.062
5/32" RH - wide channel	#2 - STD	CAL RH19	CAL RH19-15	29	CAL RH19-45	87	0.155	0.186	0.288	0.062
11/64" RH	#2 – STD	CAL RH20	CAL RH20-15	29	CAL RH20-45	88	0.172	0.155	0.263	0.077
3/16″ RH	#2 – STD	CAL RH5	_	_	CAL RH5-45	55	0.190	0.187	0.340	0.079
7/32″ RH	#2 – STD	CAL RH4	_	_	CAL RH4-45	75	0.218	0.156	0.260	0.093
7/32" RH - wide channel	#2 – STD	CAL RH10	_	_	CAL RH10-45	52	0.220	0.186	0.320	0.089
7/32″ RH - high heart	#2 – STD	CAL RH4HH	_	_	CAL RH4HH-45	50	0.218	0.250	0.354	0.084
1/4″ RH	#2 – STD	CAL RH6	_	_	CAL RH6-45	61	0.243	0.155	0.258	0.098
1/4″ RH	#2 – STD	CAL RH7	_	_	CAL RH7-45	57	0.250	0.187	0.300	0.110
1/4" RH - wide channel	#2 – STD	CAL RH7W	_	_	CAL RH7W-45	53	0.250	0.204	0.317	0.109
3/8″ RH	#2 – STD	CAL RH37	_	_	CAL RH37-45	32	0.375	0.156	0.314	0.170
3/8" RH - wide channel	#2 – STD	CAL RH38	_	-	CAL RH38-45	30	0.375	0.187	0.350	0.170
FLAT "H"										
3/16″ FH	#2 – STD	CAL FH60	_	-	CAL FH60-45	96	0.187	0.187	0.247	0.079
1/4″ FH	#2 – STD	CAL FH50	_	-	CAL FH50-45	55	0.250	0.185	0.270	0.105
9/32″ FH	#2 – STD	CAL FH48	_	-	CAL FH48-45	63	0.280	0.156	0.220	0.117
3/8″ FH	#2 – STD	CAL FH46	_	-	CAL FH46-45	46	0.375	0.156	0.228	0.169
3/8″ FH - wide channel	#2 – STD	CAL FH45	-	-	CALFH45-45	35	0.375	0.190	0.280	0.168
3/8″ FH - high heart	#2 – STD	CAL FH46HH	-	-	CAL FH46HH-45	40	0.375	0.250	0.320	0.163
1/2″ FH	#2 – STD	CAL FH26	-	-	CAL FH26-45	40	0.500	0.156	0.222	0.227
1/2″ FH - wide channel	#2 – STD	CAL FH26W	_	-	CAL FH26W-45	35	0.500	0.250	0.314	
5/8″ FH	#2 – STD	CAL FH62	-	-	CAL FH62-45	28	0.625	0.156	0.236	0.289
3/4″ FH	#2 – STD	CAL FH12	-	-	CAL FH12-45	25	0.750	0.156	0.226	0.351
3/4″ FH - wide channel	#2 – STD	CAL FH21	-	-	CAL FH21-45	20	0.750	0.232	0.326	0.353
1″ FH	#2 – STD	CAL FH27R	-	-	CAL FH27R-45	24	0.991	0.165	0.275	0.470
1" FH - high heart	#2 – STD	CAL FH1HH	-	-	CALFH1HH-45	16	1.000	0.251	0.341	0.475
U CHANNEL	// 0 CTD			50			0.075	0.15/	0.000	0.04/
5/64″ U	#2 – STD	CAL RU100	CAL RU100-15	59	_	-	0.075	0.156	0.228	0.046
3/32″ U	#2 – STD	CAL RU92	CAL RU92-15	33	-	-	0.100	0.156	0.258	0.044
3/32″ U	#2 – STD	CAL RU100S	CAL RU100S-15	33	-	-	0.106	0.156	0.242	0.044
1/8″ U	#2 – STD	CAL RU90	CAL RU90-15	36		- 7/	0.125	0.130	0.231	0.091
3/16″ U	#2 – STD	CAL RU70	CAL RU70-15	25	CAL RU70-45	76	0.189 0.189	0.156	0.250	0.139
3/16″ U 7/32″ Flat U	#2 – STD	CAL RU86	CAL RU86-15	22	CAL RU86-45	57 60		0.156	0.250	0.119
	#2 – STD	CAL SU55	_	-	CAL SU55-45	00	0.237	0.157	0.242	0.190
REFORCE 3/16" Round H REFORCE5	#2 – STD	CAR RH316			CAR RH316-45	39	0.187	0.156	0.345	0.053
7/32" Round H REFORCE10	#2 – STD #2 – STD	CAR RH732	_	-	CAR RH732-45	39 42	0.107	0.156	0.345	0.053
1/4" Round H REFORCE6	#2 – STD #2 – STD	CAR RH250	_	-	CAR RH250-45	42 37	0.210	0.165	0.330	0.085
3/8" Round H REFORCE 51	#2 - STD #2 - STD	CAR RH375	_		CAR RH375-45	37 22	0.250	0.130	0.325	0.085
3/8" Flat H REFORCE45	#2 - STD #2 - STD	CAR FH375	_	_	CAR FH375-45	24	0.375	0.185	0.320	0.140
1/2" Flat H REFORCE26	#2 - STD #2 - STD	CAR FH575	_	_	CAR FH500-45	18	0.500	0.185	0.320	0.140
	$\pi L - JID$	CAILTIJUU	_	_		10	0.000	0.105	0.027	0.210

Toll-free: 1-800-828-7159



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METALS

Section D METAL CAM

Cascade

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METAL CAMES

Metal came is used wherever strength is necessary. Metal came is lighter than lead, but much more rigid. This is an important consideration for windows with beveled glass, as bevels require more support. The metal came can be the finished frame as well. Cut with a fine-tooth hacksaw, or more quickly with

Gryphon's Came Saw (see page C-3). For curved work, metal came can be bent to shape easily with the Zinc and Brass Roller on page D-6.

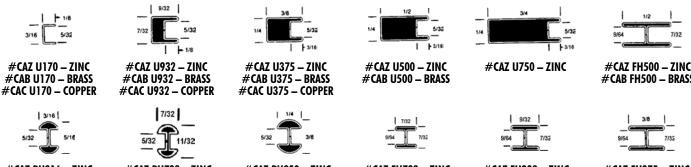
ZINC CAME is the same silver tone as both lead and solder.

BRASS CAME adds a touch of elegance to any finished piece. The bright gold effect is stunning. Brass came cuts, shapes and solders like zinc came. Color your solder joints with a Brass Paint Pen (#0932) on page J-5.

COPPER CAME has the strength of zinc and you elim

Brite Copper Patina (#0791) on page E-1.

CAME is sold in individual six foot lengths or in 22 pound box□ lengths per 22 pound box is also shown.



#CAZ RH316 – ZINC #CAB RH316 - BRASS #CAC RH316 - COPPER

Toll-free: 1-800-828-7159

#CAZ RH732 – ZINC





#CAZ FH932 – ZINC #CAB FH732 - BRASS #CAB FH932 - BRASS #CAC FH932 - COPPER

#CAZ FH500 – ZINC #CAB FH500 - BRASS

#CAZ FH375 - ZINC #CAB FH375 - BRASS

CATALOG NUMBERS FOR ZINC/BRASS/COPPER CAME									
When ordering came, please use the catalog number that corresponds to the quantity (six foot length or 22 lb box) desired.									
SIZE AND		ZINC			BRASS			COPPER	
DESCRIPTION	CAT # 6ft	CAT # 22lb BOX	PCS/BOX	CAT # 6ft	CAT # 22lb BOX	PCS/BOX	CAT # 6ft	CAT # 22lb BOX	PCS/BOX
ROUND "H" CR	DSS SECTION								
3/16in Round H	CAZ RH316	CAZ RH316-22	80	CAB RH316*	CAB RH316-22*	88	CAC RH316	CAC RH316-22	100
7/32in Round H	CAZ RH732	CAZ RH732-22	67	_	-	-	-	-	-
1/4in Round H	CAZ RH250	CAZ RH250-22	58	CAB RH250*	CAB RH250-22*	69	_	_	-
FLAT "H" CROSS	SECTION								
7/32in Flat H	CAZ FH732	CAZ FH732-22	79	CAB FH732*	CAB FH732-22*	74	_	-	-
9/32in Flat H**	CAZ FH932	CAZ FH932-22	53	CAB FH932	CAB FH932-22	71	CAC FH932	CAC FH932-22	66
3/8in Flat H	CAZ FH375	CAZ FH375-22	42	CAB FH375	CAB FH375-22	47	_	_	_
1/2in Flat H	CAZ FH500	CAZ FH500-22	34	CAB FH500	CAB FH500-22	44	_	_	_
FLAT "U" CROSS	FLAT "U" CROSS SECTION								
1/8in Flat U	CAZ U170	CAZ U170-22	184	CAB U170	CAB U170-22	231	CAC U170	CAC U170-22	222
9/32in Flat U**	CAZ U932	CAZ U932-22	65	CAB U932	CAB U932-22	72	CAC U932	CAC U932-22	86
3/8in Flat U	CAZ U375	CAZ U375-22	46	CAB U375	CAB U375-22	47	CAC U375	CAC U375-22	43
1/2in Flat U	CAZ U500	CAZ U500-22	38	CAB U500	CAB U500-22	38	_	-	_
3/4in Flat U	CAZ U750	CAZ U750-22	30	_	-	_	_	-	_
Note: Piece count per box is approximate and may vary. * These items are made from a soft alloy brass for easier bending. ** Slightly larger than 1/4".									

4/24/2019

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Section D REINFORCEMENT

1/8"

) 1/8"

1/8'

1/8"

1/4" |

3/8"

1/2"

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Rebar

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REINFORCING BAR (also known as "rebar") adds strength and rigidity to your work.

ZINC REBAR is available in a 1/8 x 5/16" cross section. Softer and easier to bend than tinned steel.

TINNED STEEL REBAR comes in 1/8 x 1/4", 1/8 x 3/8" and 1/8 x 1/2" cross sections. Solders easily to your work, or use with tie wires. Rebar can be bent in a vise or with pliers to follow your lead lines. Stronger than zinc rebar.

CATALOG NUMBERS FOR REBAR

When ordering rebar, please use the catalog number that corresponds to								
the quantity (six foot length or Full Box) desired.								
SIZE & DESCRIPTIO	N 6FT CAT#	FULL BOX CAT#	PCS PER BOX					
ZINC REBAR FULL BOX 221b								
1/8 x 5/16″	#1740	#1740-22	32					
STEEL REBAR FULL BOX 221b								
1/8 x 3/8″	#17410	#17410-22	24					
1/8 x 1/2″	#17411	#17411-22	18					
1/8 x 1/4″	#17412	#17412-22	37					
Note that piece count is approximate and may vary.								

Hidden Reinforcement

Rebar provides strong (but visible) reinforcement. To preserve the asethetics of your work, use hidden reinforcement, adding strength without interfering with appearance.

RESTRIP is a 5/32" wide, 10 mil thick strip of copper which is easily concealed in your windows. Run this stripping between pieces of foiled glass or hide this reinforcement inside the channel of lead came. You run it down the middle of the came, next to the came's heart. This method of reinforcement is ideal for panels not easily reinforced with rebar (ie, anything with curves). Available in:

• 25 foot coils (#1742)

• 100 foot coils (#1743)

STRONG LINE (#0519) by Morton Glass Works is a heavy duty version of Restrip. Strong Line is 20 mil copper coated STEEL stripping which is used the same as Restrip above. Coil is 25' long, in a convenient dispenser.

BRAIDED WIRE is especially useful for lampshades or other three dimensional projects, as it follows the curve of your lamp better than reinforcing strip. Also makes a neat, uniform border on free-form copper foil projects. 1/8x1/32" cross section. Available as:

- 10 foot coils (#1755)
- 100 foot spool (#1755-100)



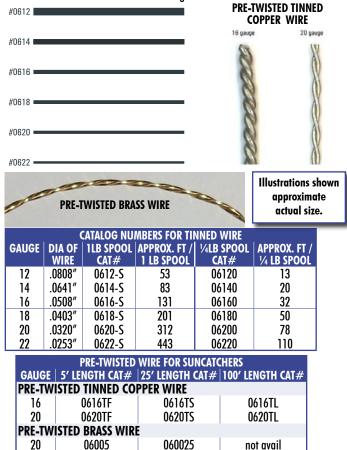
Tinned Copper Wire

TINNED COPPER WIRE is used as accents and detail lines. The heavier wire (12 gauge) can be used for stems for flowers. Use lighter wire (22 gauge) for fine details on flower petals or cat whiskers. The wire is coated with a thin layer of solder to match your piece. It solders easily. The wire is soft tempered so it bends to shape easily.

Tinned Wire is sold on 1 lb and 1/4 lb spools. See the chart below for the correct Catalog Number.

PRE-TWISTED WIRE – 16 and 20 gauge wire are sold in 5, 25 and 100 ft lengths, ready to use as accents on angels, suncatchers and more!

PRE-TWISTED BRASS WIRE — made from 2 strands of *square* 20 ga brass wire provides a sparkling gold finish for your projects that is perfect for angel halos, flower stems and other details. Sold in 5 & 25 ft lengths.



Tools For Metal Came Work

ZINC AND BRASS ROLLER (#1750) bends your brass, copper or zinc came to even, precise curves without crimping or kinking. Comes with specially designed roller dies for accurate bending of both "U" and "H" cames. Constructed with cast aluminum base and machined dies.



THE 90° LI'L NOTCHER (#1751) is a cutting tool that puts a notch in 1/8'' U brass or zinc channel. It allows the came to go around sharp 90° corners without puckering. It saves you having to cut or miter the channel to make corners when using 1/8'' channel for borders.





Toll-free: 1-800-828-7159



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