



We're Still Here

It has been a rough year and I have cut a lot of expenses to avoid layoffs. Now things are picking up a little so here is another newsletter.

When We Help People We Always Learn A Lot

Danny Glista from **Country Saw & Knife in Ohio** called and we talked about something going on in his shop. He had some great questions. Mostly he already knew the answers and, when I asked a question, he knew that answer as well.

I don't know how much I helped him but he sure taught me a lot. What I could do for him was to tell him what I had seen other places. Mostly he was aware of them but one or two were slightly different.

The other thing I could do was to make some phone calls and find some folks that really could help him.

I had a similar experience with **Mike Lindsay of Eastside Saw in Bellevue, WA.** Mike brought a saw blade down to have analyzed. We put it under a microscope and started looking. I started pointing out things then Mike jumped in and pointed out things I hadn't noticed. (I might have seen them eventually but he was sure quick. He is a bright guy with a good eye for detail.)

So that's how we help folks. We listen, throw out some ideas and refer them on to other folks as appropriate.

If you have a problem we'd be happy to listen and we might know someone who could help you. 800 346-8274

Carbide Processors, Inc.

Northwest Research Institute, Inc.

Newsletter April, 2010

3847 S. Union Ave. Tacoma, WA. 98409 (800) 346-8274

sales@carbideprocessors.com www.carbideprocessors.com

Carbide That Works Or

Carbide That Doesn't Work

The past several months the industry has had a real problem with carbide tips falling off saws. (I mean well made saws, from good shops who did everything right and the carbide still came off.)

We have seen this from at least six different carbide suppliers. Sometimes it is a whole batch. Sometimes it is a third of a batch or so and sometimes just a few tips are bad.

We Only Sell Good Carbide

And it ain't easy to do. We run the tips through the pretinning oven and then clean them. Then we go through the tips one at a time and check for bad flow as well as chips and cracks. The chipped and cracked we throw away. Those with bad flow we treat with a special process we invented and rerun them. Most of those work but not all. We still have to sort and rework them.

So we still charge our regular price but we run the tips two extra times and sort each and every tip three times just to make sure you get good tips. (More about the industry 'bad carbide' problem on P.3)



We sell carbide in all shapes and forms.

It is all guaranteed 100%. If you don't like it we will replace it or refund your money.

Report on our Super C ® Tips.

Jamie McRae of McRae Lumber "Well I can say we quite like the super C teeth. We've noticed a great deal of success with them on our vertical resaw. The saw can run for 5 days without problems, where before usually about 2-3 days.

We Sell Saw Plate

We sell 5 different kinds from several different suppliers so you always get the plate you want at the very best price.

Brazing "Blue Plate"

Blue Plate has been tempered twice which makes a plate really flat and stress free. It adds a little bit to the cost of the plate but greatly improves quality and saves a huge amount of work in the shop or mill.

If you use Blue Plate (and more folks are all the time) then you have a darker plate than a shiny steel plate. It appears that a darker plate will absorb more energy, faster than a shiny steel plate. This is important in brazing with automatic systems as they heat differently than a hand held torch.

A hand held torch is generally held outside the plate pointing in to the tip while an automatic system will often have the heating elements along side the steel shoulders. This means more heat into the plate and a greater problem with a heat affected zone in the finished saw.

Also you need to make sure operators adjust for plate thickness to prevent chill line problems if you do not anneal after brazing yet.

Beautiful Custom Carbide

You can get both standard and custom carbide from us.

This is a custom shape that really turned out well. We got the job after a big international outfit dropped out because they couldn't do it.



This is the part. There are two things that make it really tricky; one is the notch and the other is the point. These have to be created in the "green state" where the carbide is softer than sidewalk chalk.



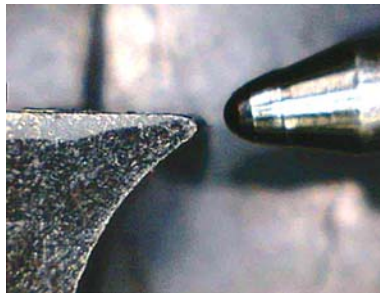
Here is the point next to a paperclip for size comparison.



Here is the point next to the lead from a mechanical pencil.

You can easily see that it is a really nice, sharp point. These tips were being individually ground to make them suitable for use.

With carbide tips such as these they can be used with no further grinding.



Tip next to tip of ball point pen.

If you need standard or custom carbide grades we can do it for you and would be happy to do so.

The Italian Tomato Garden

An Italian man lived alone in New Jersey. He wanted to plant his annual tomato garden, but it was very difficult work, as the ground was hard.

His only son, Vincent, who used to help him, was in prison. The father wrote a letter to his son and described his predicament:

Dear Vincent,
I am feeling pretty sad, because it looks like I won't be able to plant my tomato garden this year. I'm just getting too old to be digging up a garden plot. I know if you were here my troubles would be over. I know you would be happy to dig the plot for me, like in the old days.
Love, Papa

A few days later he received a letter from his son.

Dear Pop,
Don't dig up that garden. That's where the bodies are buried.
Love, Vinnie

At 4 a.m. The next morning, FBI agents and police arrived and dug up the entire area without finding any bodies. They apologized to the old man and left.

That same day the father received another letter from his son.

Dear Pop,
Go ahead and plant the tomatoes now. That's the best I could do under the circumstances.
I love you, Vinnie

A New Flux A Little Cheaper A Little Better



Made in USA. Our product doesn't sit on a shelf for months at a time. We have a quick turn around from date of mixing to date of ship.

Our flux will have no yellowish colored liquid settling on top, ours is clear.

No grittiness, however...

We can adjust particle size per specific application. **Flux particle size determines how long it lasts.**

We can pack custom quantities (2 lb, 15 lb, 20 lb, 30 lb container).

Our 1 lb containers are a bit taller for adding water and mixing in the container if customers choose to.

- Our product will not crystallize
- Our product will retain its creamy texture
- Our product is formulated for the majority of brazing operations (however we can formulate for a specific application upon request)
- Our product leaves residues that are very water soluble

The Industry Problem with Bad Carbide

Here is a report on the bad tips from one day.

Supplier	Qty	Qty Bad	Size
A	250	4	WDC 7312
A	250	38	WDC 7250
D	1,000	122	WGC 7250
A	1,500	0	WHC 7150
A	750	0	WGC 7140
A	300	0	WDC 7170
B	1,000	23	CWG 7200
B	1,037	0	CWD 7230
B	450	75	CWG 7230
B	400	5	CWD 7250
B	1,000	11	CWG 7250
B	500	4	CWG 7230
B	500	14	CWD 7250
B	500	10	CWD 7215
B	1,000	16	CWD 7165
B	1,000	29	CWD 7165
D	100	15	strob
A	1,000	15	WFC 7200
C	1,500	10	WGC 7170
B	505	10	WDC 7185
C	700	34	WDC 7230
C	1,000	16	WBC 7120
A	300	40	WFC 7200
D	500	210	WGC 7180
A	250	130	WFC 7300
A	500	35	WFC 7230
C	1,000	25	CWF 7160
Total	18,792	891	5%

The tips we label bad would not flow out properly. If the braze alloy does not stick to the carbide then the carbide will not stick to the saw. We believe that these tips we sorted out represented a real possibility of a weak joint and tip loss.

As you can see there were bad tips from all four suppliers. The total for the day was 5% which is a little high. Lately we have been seeing about 3% bad tips. However this ranges from zero bad tips to as many as a third.

Example:

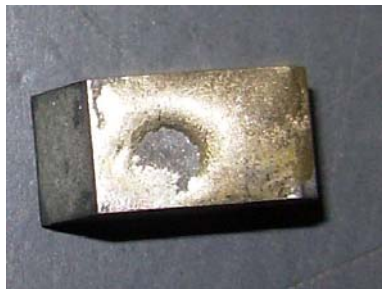
This is from a box of 500 tips, WGC 7180. About half worked really well. The other half look like the pictures with braze alloy over the side or the front.

This is a function of the surface condition of the carbide. We regularly see boxes and bottles of tips where most work but some don't and there is no way of telling before you use them.

In an automated brazing system these tips would have probably have stayed on during manufacture and shipping. Then you would have them failing in use.



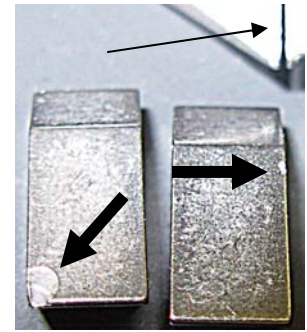
Above you see some examples of bad flow. The braze alloy won't say on top of the tip. Typically it forms into a ball that then runs to one end or over the side. In the past this has often been blamed on the person doing the pretinning. That is why I am showing the tip below.



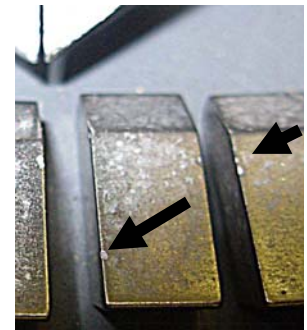
We pretinned this with a piece of straight wire. The wire melted and flowed around a bad spot creating a hole. This is clearly a carbide surface problem. There is an additional consideration in that a really bad spot, such as this, has to make you wonder how good the rest is.



Here are more examples of the braze alloy refusing to stick to the carbide. Some of these might stay on a saw but none of them are right.

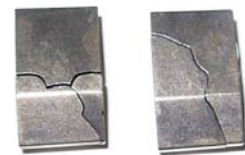


Here are some chipped tips. The jaws on the caliper are set to 0.010" for reference. Many of these chips are pretty small but the automatic brazers can lay tips within 0.002". Some of these would be removed with a side and face grind. Some would not.



We had to sort these chipped tips out from the good tips. It is very hard to see a crack or chip of a couple thousandths. It may not be necessary for everyone since taking 0.005" off the face and side would have cleaned up a lot of these. However people are grinding closer than ever before and it is a trend that will continue.

It is very hard to teach people recognize big chips from little chips. It is easier to teach them just to look for chips on the cutting edges.



It is not just us and not just you. I went on Tim Cook's discussion group and asked others who had problems to contact me.

<http://finance.groups.yahoo.com/group/IndustrialToolSharpening/>

I heard from lots of folks including suppliers, customers and competitors.

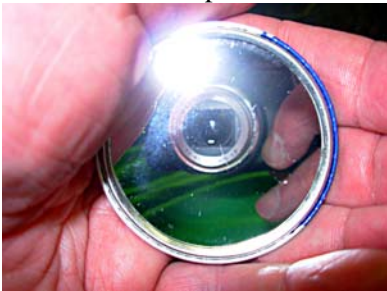
Free Stuff

Free mouse pad



No one has given us a mouse pad in a long time so I thought some of you might be in the same boat. They really do help the mouse work better especially the new optical mice (mice?).

A steel cased inspection mirror.



These are used by many to inspect the back side of saw blades and other tools while sharpening is in progress. They have a steel case which makes it possible to mount the mirror with a magnet on band saw grinders and other machines. You can also slip them in a pocket and use them as a hand held inspection tool.

A letter opener.



A surprisingly handy little tool. Slip the point in the corner, under the flap and just zip it across. If you don't want this then get one for whoever opens the mail.

Really Cheap Tips

5 Cents each if you buy them all



4,000 tips

WFC 7150 in a C2 grade.

These tips are 0.500" long by 0.130 thick. For this price you would still be way ahead if you bought them and ground them down to 3/8 long.

10 cent tip sale

* all prices good while supplies last
* to insure accuracy on your invoice please mention sale list when you order. Call Emily with questions 800-346- 8274 or Cell 253-459-4965

Blanks- 1.26 x .140 x .095		100
Blanks- 14.5 x 10 x 4	HC20	160
Blanks- 10.5 x 5.0 x 3.5		60
Blanks- 1.255 x .155 x .125	MH18	300
MFC 7190	XM4D	200
MFC 7215	C4	100
WA 7100	C2	150
WA 7160	C2	500
WA 7130	C3	500
WA 7180	C2	350
WB 7120	C-3	100
WB 7135	C-3	100
WB 7150	C-3	100
WB 7200	C4	2200
WBC 7105	C-3	400
WDC 7100	C-3	1140
WDC 7125	C2	150
WDC LH 7250	C-2	250
WDC LH 7250	C2	1000
WDC RH 7250	C2	1500
WDC LH 7215	C2	490
WDC RH 7215	C3	495
WDC LH 7200	C-2	200
WDC RH 7215	C-3	1500
WDC LH 7185	C3	500
WEC 7140	C3	250
WE 7150	Super C	500
WEC 7185	Super C	250
WEC 7230 LH	C1	160
WEC LH 7215	C3	500
WEC RH 7215	C3	500
WFC 7135	C1	2000
WFC 7150	C1	373
WG 7200	c3	450
WGC 7110	C4	170
WGC 7110	C2	2470
WGC 7110	C4	2000
WGC 7135	C4	130
WGC LH 7270	C-3	68
WGC RH 7270	C-3	130
WGC 7150	C-4	3500
WHC 7220	C2	200
WXC 7115	C4	265
WXC 7120	C4	465
WXC 7150	C1	975



Spring is Here

The Economy is Picking up a Little
Maybe it is time to Celebrate

Murphy's Hat

Murphy showed up at Mass one Sunday and the priest almost fainted when he saw him. Murphy had never been seen in Church in his life.

After Mass, the priest caught up with Murphy and said, "Murphy, I am so glad ya decided to come to Mass, what made ya come?"

Murphy said, "I got to be honest with you Father, a while back, I misplaced me hat and I really, really love that hat. I know that McGlynn had a hat just like me hat, and I knew that McGlynn comes to Church every Sunday. I also knew that McGlynn had to take off his hat during Mass and figured he would leave it in the back of Church. So, I was going to leave after Communion and steal McGlynn's hat."

The priest said, "Well, Murphy, I notice that ya didn't steal McGlynn's hat. What changed your mind?"

Murphy said, "Well, after I heard your sermon on the 10 Commandments, I decided that I didn't need to steal McGlynn's hat after all."

The priest gave Murphy a big smile and said, "After I talked about 'Thou Shalt Not Steal' ya decided you would rather do without the hat than burn in Hell, right?"

Murphy slowly shook his head and said, "No, Father, after ya talked about 'Thou Shalt Not Commit Adultery', I remembered where I left me hat."



For something extra . . .
take a boy hunting

If you would take a fresh look at familiar surroundings, see them through the eyes of a boy. There's just a natural affinity a boy has for a rifle, some Super-X 22's and a chance to use both. His delight in all the many things that make a day afield will enrich your own experience and draw you closer together, as nothing else can. Go on, take him hunting—you both want to go.



All Westerns growing in respect, handling and construction.



Solid point
for maximum penetration



Hollow point
for maximum expansion

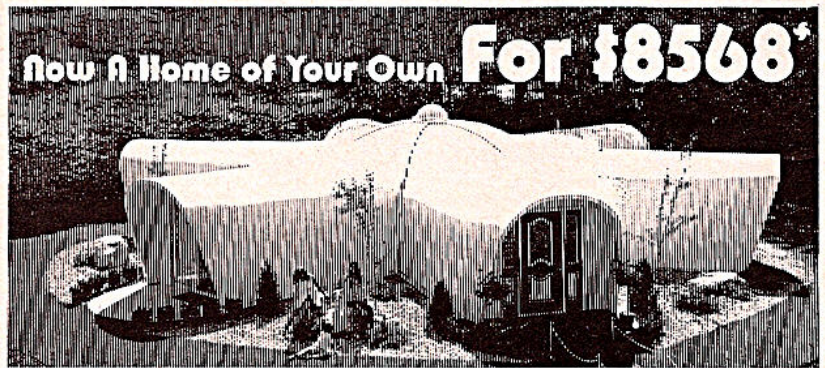
Super-X



**SO THE
HARDER
A WIFE
WORKS,
THE CUTER
SHE LOOKS!**



Vitamins for pep! **PEP** for vitamins!*



You get the latest economy innovations in a unique architectural design

Combining economy features like modular construction techniques, to simplify installation, and fiberglass with fire-retardant foam, for the best structural integrity, thermal and acoustical qualities, Fiberglass Homes of America, Inc. (a public corporation) has created a home for only \$9/sq. ft.: from \$8568 (fig. 1) to \$12,600 (pictured above, fig. 2); less than half the cost of conventionally built homes.

The patent-pending design is a unique sunburst shape with modules radiating from a central, circular living area which culminate at 10½ ft. high in a skylight-dome. Each one-piece, electrically pre-wired module enjoys a different view and being separated minimizes noise transmission for maximum privacy.

For the ultimate in flow, spaciousness and convenience you can choose from a variety of models starting at 952 (fig. 1) sq. ft. of livable floor space. The most popular, consisting of six modules, is the 1400 (fig. 2) sq. ft. model. The pre-fabricated home has been erected in eight hours; and normally is ready for occupancy in less than a week.

The design satisfies building code requirements, withstanding independent tests that include: 150 mph hurricane force wind tests performed by a leading construction test laboratory in Southern Florida; tests equal to 40-foot snow (bearing) loads and a full-scale fire test on a totally furnished Fiberglass Home that resulted in a 57-minute duration (with flames over 1200°F) compared to conventionally built homes that would burn down in 20 minutes under the same test conditions.

Virtually every square inch is insulated with a 3" core of urethane foam sandwiched between an inner and outer durable skin of fiberglass. The urethane foam is approximately 300% more effective in reducing heating/cooling costs than conventional insulation used in standard type construction. For example, the annual electric bill of a 1400 sq. ft. Fiberglass Home located in the snow belt of New England was only \$290.00, including heating.

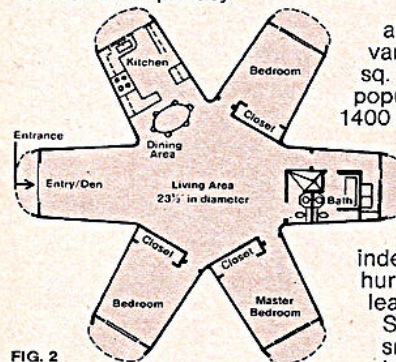


FIG. 2

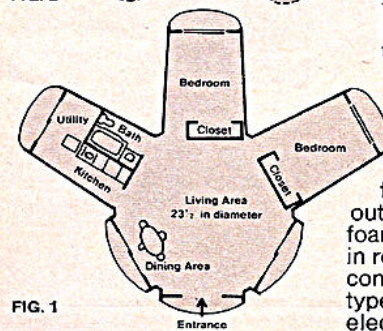


FIG. 1

All Modules 12' x 14'

To minimize maintenance costs, the gelcoat finish on the exterior and interior walls weathers superior to other conventional materials. It can be restored by using ordinary household cleaning agents and the walls can be painted or wallpapered if desired.

FOR ADDITIONAL INFORMATION WRITE
FIBERGLASS HOMES OF AMERICA, INC.
P.O. BOX 146, DELMAR, NEW YORK 12054

Name _____ Telephone _____

Address _____

City _____ State _____ Zip _____

Please enclose \$2.50 to cover postage and handling.

Dealerships still available, for information send an additional \$1.50 for franchise package.

*PRICE: F. O. B. nearest factory. Modules come with a variety of fiberglass endwall enclosures with standard openings (price excludes windows, doors, kitchen and bathroom). Can be mounted on your (or dealer supplied) wooden deck, concrete slab or full-basement at additional costs. FHA approval pending and local bank financing can be arranged. Hurry, offer may be withdrawn at anytime.



**Fiberglass Homes
of America, Inc.**

Found in Mom's Basement

Top 10 Reasons to Use Our Carbide



1. World's largest inventory

We buy from many different manufacturers and suppliers which gives us (and you) access to their inventories. One call to us and we do all the work.

2. Whatever you want

We are more than happy to get you whatever you wish no matter how odd or strange.



3. Beautiful custom work

People repeatedly tell us how beautiful our custom parts are.

4. The tightest, most complete quality specification

We got really tired of bad tips so we wrote a set of specifications that has become industry standard. Call, email or go online and we will be happy to send you a copy.

5. The very best quality

Because we are the fussiest we get the very best quality. Some carbide suppliers try to send people to others because we are too fussy. We have never had a customer tell us we were too fussy. They like getting good tips every time.

6. The only truly honest counts

We spent \$11,000 dollars on an automated tip counter to count every tip exactly. Our counter is so good that the technology is used to count narcotic pills in pharmacies where missing pills is a crime. We are the only one with

this kind of equipment. We also have two weigh counting scales but they aren't as accurate.

7. Our exclusive Super C® grade

This is tougher than C-1 and wears much longer than C-4. It is a great sawmill, rough application use.

8. Our Exclusive Cermet 2® grades

We have several Cermet 2® grades. They are excellent for man made materials. They have the strength of a C-3 and last 5 to 10 times as long as C-4 grades. **They braze and grind just like C-4 grades.** No special wheels required. #

9. Perfect for automated brazing systems

Tips sized to minus zero and plus 2 thousandths of an inch. ($-0.00'' / +0.002''$). Our pretinning leaves a smooth even curve that is identical on every tip.



10. Every tip wets every time

Perfect brazing and bonding

11. 100% Satisfaction guarantee.

The only no hassles, 100% satisfaction guarantee. If you don't like our tips we will replace them or refund your money.

12. Easy, easy, easy and easy

When you call a nice lady answers the phone within three rings and helps you with whatever you wish just like that. Sometimes, when we are really busy, an old man answers but he'll get you to a nice lady pretty fast.

13. The best service in the industry

We said ten but we always work really hard to give you exactly what you want, when you want it and then give you a little more besides.

Wedding Cakes



Super "C" Carbide Grade

Tougher than C1 - Better wear than C3

What Makes Super C Tips Truly Superior

1. Superior Abrasion Resistance - Abrasion or straight wear is countered by smaller, better grain size.
- 2 & 3. Superior Adhesion and Diffusion Resistance (corrosion and chemical attack) Super C grade of carbide has an extremely fine structure so there is very little binder presented to the material being cut. This, combined with the special metallurgical formulation the Super C binder (hint - it's not just plain Cobalt) creates an extremely wear and corrosion resistant material for use in wood, plastic or non-ferrous metals.
4. Superior Fatigue Resistance

And People Really Like Them - Call Today To Try Them - Most Sizes Readily Available

Super C	Hardness (HRA)	T.R.S. (psi)
	92.2 - 92.4	530,000 +

Typical C2 values

	Hardness (HRA)	T.R.S. (psi)
C2	92.1	334,000
C2	91.8	334,000
C2	91.5	377,000
C2	90.4	435,000

Typical C Values

	Hardness	T.R.S. (psi)
C1	89 - 92.4	350,000 - 360,000
C2	91.2 - 92.9	250,000 - 400,000
C3	91.4 - 93.6	270,000 - 350,000
C4	89.6 - 93	260,000 - 450,000

Sawmill Grade Tips

- Transverse rupture strength well above 500,000 psi.
- Rockwell A hardness above 92
- Alloy binder for corrosion resistance
- Grain structure to inhibit both crack initiation and crack propagation
- Micro grain or mixed grain for superior wear

Carbide Processors, Inc.
800 346-8274



Cermet II®
8 days
instead of 5
in MDF

Three weeks and three full loads of double side melamine laminate instead of 1 week and 1 load with carbide

1. 5 blades with standard C-4 carbide cutting 45 lb. single and double sided vinyl-laminated particle board
* Cermet II - 15,088 meters / old grade - 6706 meters for **225% as much run life**

2. KM-16 industrial saw cutting 101.6 mm x 152.4 mm (4" x 6") Green hardwoods, oak, hickory, maple and walnut using 11 blades with standard C-4 carbide

*Cermet II / 462 hrs / old grade - 40 hrs
1,155% as much run life

3. 406 mm (16") 100 teeth cutting countertops

* Cermet II - 4 weeks / old grade - 1 week (4 times) **400% as much run life**

4. 406 mm (16") 80 teeth cutting MDF Board

* Cermet II - 10 days / old grade - 2 days (5 times) **500% as much run life**

5. 305 mm (12") 100 teeth TCG Miter cutting oak, Compressed Fiber Board, Plastic

* Cermet II - 154 hrs / old grade - 28 hrs (5.5 times) **550% as much run life**

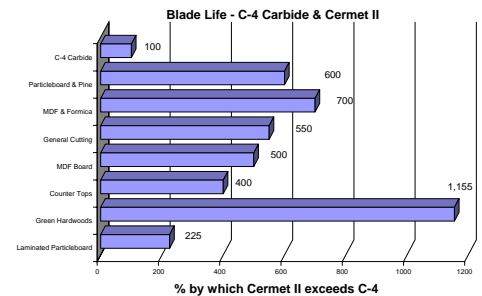
6. 305 mm (12") 60 teeth cutting MDF, High Pressure Laminate (Formica)

* Cermet II - 56 hrs / old grade - 8 hrs (7 times) **700% as much run life**

7. G 1060A on Chop Saw cutting Particle Board and Pine Dowel Rods

* Cermet II - 48 hrs / old grade - 8 hrs (6 times) **600% as much run life**

Use Cermet 2 instead of carbide and make your life much easier



Cermet II® Successes

Several times the life in a window and door plant.

3 times the life in Corian.

8 days instead of 5 in MDF and we have an even better grade coming.

Twice the life in beetle killed Lodge Pole pine.

Benefits You Get

- * Grinds like regular carbide
- * Gives a better edge than carbide
- * Stays sharper longer than carbide
- * Great increase in fracture toughness.
- * More corrosion-resistant
- * Better at high temperatures
- * Cuts faster
- * Cuts faster & longer yet is tougher
- * Longer runs and less downtime.

Report from Marvin Windows

On the saw that we tried. How many times we sharpen a blade before we order new or have retipped we are not sure. Most blades get damaged by hitting something so we have the carbides retipped a lot. How often do regular blades have to be sharpened? We normally have our carbide tipped blades sharpened every week.

The new Cement II blade normally last twice as long before it gets damaged. The best so far is four weeks and one and a half million cuts before we changed it out which is four times longer.

Hope this helps and keep up the good work on those tips.

Nathan Hull, Grinderman
Marvin Wood Products
Carbide Processors, Inc.

NW Research Institute, Inc.
 Carbide Processors, Inc.
 3847 S. Union Ave.
 Tacoma, WA 98409

PRESORT STD
 US POSTAGE
PAID
 Tacoma, WA
 Permit No. 356

ADDRESS SERVICE REQUESTED

“I don’t know when they will ever wear out” customer report on our Cermet 2® tips in man made material.

Our cermet 2® tips braze and grind just like carbide. They take a polish so good you can see yourself in it. (O.K. you need to have a really tiny face to see yourself in a saw tip but you get the idea.)

Lower Prices on Pretinning

We have had a surcharge on our pretinning because the price of silver has been so high. Silver is still really high but we have a new carbide supplier and their quality is so good that we do much less inspection and rework so we are dropping our pretinning surcharge. We also have quantity discounts and special prices on some inventory. Call Emily at 800 346-8274

Best Carbide We Have Ever Seen

We have a new carbide supplier and it is the best carbide we have seen since we started in 1981. The sizes are excellent. The tolerances are extremely tight at minus zero and + 0.003” (and usually plus 0.002”) instead of the old minus zero and plus 0.007”.

These tips wet and braze beautifully. Every tip works. Every tip stays on the saw when brazed properly. (If you have trouble with tip loss we can test your carbide, examine your saws and procedures and help you achieve 100% success.)

The tips give long life and are very hard to break.

Besides excellent quality the prices are really good. You really should try these. Call Emily (800) 346-8274

We Buy Scrap Carbide And the prices are back to being good.

Prices change daily so Call Emily at 800 346-8274

Service Saws Faster and Easier

When we were in New York we got to meet Bruce Moore of Wagner Lumber. He told us he really liked our tips because they don’t wear nearly as much as other tips. When he takes the saws off they only need a couple quick passes to restore the edges. It is fast and easy and really helps cut down saw service times.

Saw Tips \$0.10

30,000 carbide tips more or less - about 100 sizes See P. 3