

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3968944

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Execution Date
GBC METALS, LLC (F/K/A GLOBAL METALS, LLC)	07/18/2016

**RECEIVING PARTY DATA**

<b>Name:</b>	JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT
<b>Street Address:</b>	10 SOUTH DEARBORN
<b>City:</b>	CHICAGO
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60603

**PROPERTY NUMBERS Total: 61**

Property Type	Number
Patent Number:	6632300
Patent Number:	6569543
Patent Number:	6471792
Patent Number:	6432556
Patent Number:	6346335
Patent Number:	6251199
Patent Number:	6183886
Patent Number:	6132528
Patent Number:	6093265
Patent Number:	6083633
Patent Number:	5980656
Patent Number:	5916695
Patent Number:	5882442
Patent Number:	5868877
Patent Number:	5853505
Patent Number:	5780172
Patent Number:	5893953
Patent Number:	6099663
Patent Number:	6695934
Patent Number:	6679956

PATENT

<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	6749699
<b>Patent Number:</b>	6905782
<b>Patent Number:</b>	6852427
<b>Patent Number:</b>	6241831
<b>Patent Number:</b>	5865910
<b>Patent Number:</b>	5820701
<b>Patent Number:</b>	6436206
<b>Patent Number:</b>	5916386
<b>Patent Number:</b>	5985055
<b>Patent Number:</b>	6136460
<b>Patent Number:</b>	7391116
<b>Patent Number:</b>	6797764
<b>Patent Number:</b>	6348544
<b>Patent Number:</b>	6194513
<b>Patent Number:</b>	5688356
<b>Patent Number:</b>	7808109
<b>Patent Number:</b>	7749611
<b>Patent Number:</b>	7731831
<b>Patent Number:</b>	7132158
<b>Patent Number:</b>	6893742
<b>Patent Number:</b>	6837980
<b>Patent Number:</b>	6164370
<b>Patent Number:</b>	5681662
<b>Patent Number:</b>	5637160
<b>Patent Number:</b>	5601665
<b>Patent Number:</b>	5573845
<b>Patent Number:</b>	5565045
<b>Patent Number:</b>	5540378
<b>Patent Number:</b>	5494209
<b>Patent Number:</b>	5489373
<b>Patent Number:</b>	5486244
<b>Patent Number:</b>	5472796
<b>Patent Number:</b>	6067712
<b>Patent Number:</b>	5800930
<b>Patent Number:</b>	5730189
<b>Patent Number:</b>	7182823
<b>Patent Number:</b>	8257515
<b>Patent Number:</b>	8430979

Property Type	Number
Application Number:	14216502
Application Number:	14952763
Application Number:	13864568

**CORRESPONDENCE DATA**

**Fax Number:** (214)981-3400

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 214-981-3483

**Email:** dclark@sidley.com

**Correspondent Name:** DUSAN CLARK, ESQ.

**Address Line 1:** SIDLEY AUSTIN LLP

**Address Line 2:** 2001 ROSS AVENUE, SUITE 3600

**Address Line 4:** DALLAS, TEXAS 75201

**ATTORNEY DOCKET NUMBER:** 36084-39960

**NAME OF SUBMITTER:** DUSAN CLARK

**SIGNATURE:** /Dusan Clark/

**DATE SIGNED:** 07/19/2016

**Total Attachments: 9**

- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page1.tif
- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page2.tif
- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page3.tif
- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page4.tif
- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page5.tif
- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page6.tif
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- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page8.tif
- source=JPM\_GBC\_GBC Metals, LLC Confirmatory Grant in IP (ABL) (EXECUTED) (2)#page9.tif

**CONFIRMATORY GRANT OF SECURITY INTEREST  
IN UNITED STATES COPYRIGHTS, TRADEMARKS AND PATENTS**

THIS CONFIRMATORY GRANT OF SECURITY INTEREST IN UNITED STATES COPYRIGHTS (the "Confirmatory Grant") is made effective as of July 18, 2016 by and from GBC METALS, LLC (F/K/A GLOBAL METALS, LLC) (the "Grantor") to and in favor of JPMORGAN CHASE BANK, N.A., in its capacity as administrative agent (the "Grantee") for itself and on behalf and for the benefit of the other Secured Parties (as defined in the Credit Agreement referenced below).

WHEREAS, Global Brass and Copper, a Delaware corporation, Global Brass and Copper Holdings Inc., a Delaware corporation, the lenders party thereto and the Grantee have entered into a Credit Agreement dated as of July 18, 2016 (as may be amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement").

WHEREAS, the Grantor and the other grantors from time to time party thereto have entered into a Pledge and Security Agreement dated as of July 18, 2016 (as may be amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement").

WHEREAS, the Grantor owns the trademarks listed on Exhibit A attached hereto (the "Trademarks"), which Trademarks are pending or registered with the United States Patent and Trademark Office.

WHEREAS, the Grantor owns the patents listed on Exhibit B attached hereto (the "Patents" and, together with the Copyrights and Trademarks, the "Intellectual Property"), which Patents are pending or registered with the United States Patent and Trademark Office.

WHEREAS, the Grantor owns the copyrights listed on Exhibit C attached hereto (the "Copyrights"), which Copyrights are pending or registered with the United States Copyright Office.

WHEREAS, this Confirmatory Grant has been granted in conjunction with the security interest granted to the Grantee under the Security Agreement. The rights and remedies of the Grantee with respect to the security interest granted herein are without prejudice to and are in addition to those set forth in the Security Agreement and the other Loan Documents, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Confirmatory Grant are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed that:

1) Definitions. All capitalized terms not defined herein shall have the respective meanings given to them in the Credit Agreement.

2) The Security Interest.

(a) This Confirmatory Grant is made to secure the satisfactory performance and payment of all the Secured Obligations. Upon the termination of the Credit Agreement and all of the Secured Obligations have been indefeasibly paid and performed in full (or with respect to any outstanding Letters of Credit, such Letter of Credit has been cash collateralized as required by Section 2.06(j) of the Credit Agreement) other than contingent indemnification obligations as to which no claim has been made and no commitments of the Administrative Agent or the other Secured Parties which would give rise to any Secured Obligations are outstanding, the Grantee shall promptly execute, acknowledge, and deliver to the Grantor all reasonably requested instruments in writing or otherwise releasing the security interest in the Intellectual Property acquired under this Confirmatory Grant.

(b) The Grantor hereby grants to the Grantee a security interest in (1) all of the Grantor's right, title and interest in and to the Intellectual Property now owned or from time to time after the date hereof owned or acquired by the Grantor, together with (2) all proceeds and products of the Intellectual Property, (3) the goodwill associated with the Trademarks of such Intellectual Property and (4) all causes of action arising prior to or after the date hereof for infringement of the Intellectual Property or unfair competition regarding the same.


3) Counterparts. This Confirmatory Grant may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

4) Governing Law. This Confirmatory Grant and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the internal laws of the State of New York.

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IN WITNESS WHEREOF, the Grantor has executed this Confirmatory Grant of Security Interest in United States Copyrights, Trademarks and Patents effective as of the date first written above.

GBC METALS, LLC (F/K/A GLOBAL METALS, LLC)

By   
Name: Christopher J. Kodosky  
Title: Chief Financial Officer

Signature Page for Grant of  
Security Interest in United States Copyrights, Trademarks and Patents

**PATENT**  
**REEL: 039394 FRAME: 0165**

CONFIRMATORY GRANT OF SECURITY INTEREST  
IN UNITED STATES COPYRIGHTS  
Exhibit A - SCHEDULE OF TRADEMARKS

Country	Trademark Name	App. No.	File Date	Reg. No.	Reg. Date	Owner
United States	COPPERBOND	73/643729	2/9/1987	1592731	4/24/1990	GBC Metals, LLC
United States	MISCELLANEOUS DESIGN	72/349885	1/28/1970	0904150	12/15/1970	GBC Metals, LLC (as successor to registrant Olin Corporation)
United States	REDUCTONE	72/314398	12/13/1968	0879747	11/4/1969	GBC Metals, LLC (as successor to registrant Olin Corporation)
United States	POSIT-BOND	72/235219	12/23/1965	0822255	1/17/1967	GBC Metals, LLC
United States	FINEWELD	72/350604	2/5/1970	0899524	9/29/1970	GBC Metals, LLC
United States	SOMERS THIN STRIP	72/385234	3/21/1971	0940833	8/15/1972	GBC Metals, LLC
United States	COPPERBOND	73/643729	2/9/1987	1592731	4/24/1990	GBC Metals, LLC
United States	S and Design	74/328284	11/4/1992	1790123	8/31/1993	GBC Metals, LLC
United States	CUVERRO	77/790483	7/27/2009	3797470	6/1/2010	GBC Metals, LLC
United States	CUVERRO & Design	77/845818	10/9/2009	3839233	8/24/2010	GBC Metals, LLC
United States	VICTORY FOR HANDS	86/556030	3/6/2015			GBC Metals, LLC
United States	Finger Design	86/556086	3/6/2015	4864613	12/1/2015	GBC Metals, LLC
United States	HEALTHY METAL	86/947877	3/21/2016			GBC Metals, LLC

CONFIRMATORY GRANT OF SECURITY INTEREST  
IN UNITED STATES COPYRIGHTS  
Exhibit B - SCHEDULE OF PATENTS

Country	App. No.	File Date	Patent No.	Issue Date	Title	Owner
United States	09/879616	6/12/2001	6632300	10/14/2003	Copper Alloy Having Improved Stress Relaxation Resistance	GBC Metals, LLC
United States	09/784547	2/15/2001	6569543	5/27/2003	Copper Foil With Low Profile Bond Enhancement	GBC Metals, LLC
United States	09/429871	10/29/1999	6471792	10/29/2002	Stress Relaxation Resistant Brass	GBC Metals, LLC
United States	09/561110	4/28/2000	6432556	8/13/2002	Copper Alloy With A Golden Visual Appearance	GBC Metals, LLC
United States	09/522544	3/10/2000	6346335	2/12/2002	Copper Foil Composite Including a Release Layer	GBC Metals, LLC
United States	09/304803	5/4/1999	6251199	6/26/2001	Copper Alloy Having Improved Resistance to Cracking Due to Localized Stress	GBC Metals, LLC
United States	09/213545	12/17/1998	6183886	2/6/2001	Tin Coatings Incorporating Selected Elemental Additions to Reduce Discoloration	GBC Metals, LLC
United States	09/103681	6/23/1998	6132528	10/17/2000	Iron Modified Tin Brass	GBC Metals, LLC
United States	09/099297	6/18/1998	6093265	7/25/2000	Copper Alloy Having Improved Stress Relaxation	GBC Metals, LLC
United States	08/877020	6/16/1997	6083633	7/4/2000	Multi-Layer Diffusion Barrier for a Tin Coated Electrical Connector	GBC Metals, LLC
United States	08/898694	7/22/1997	5980656	11/9/1999	Copper Alloy with Magnesium Addition	GBC Metals, LLC
United States	08/769912	12/9/1996	5916695	6/29/1999	Tin Coated Electrical Connector	GBC Metals, LLC
United States	08/591065	2/9/1996	5882442	3/16/1999	Iron Modified Phosphor-Bronze	GBC Metals, LLC
United States	08/898053	7/22/1997	5868877	2/9/1999	Copper Alloy Having Improved Stress Relaxation	GBC Metals, LLC
United States	08/844478	4/18/1997	5853505	12/29/1998	Iron Modified Tin Brass	GBC Metals, LLC
United States	08/657211	6/3/1996	5780172	7/14/1998	Tin Coated Electrical Connector	GBC Metals, LLC



<u>Country</u>	<u>App. No.</u>	<u>File Date</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>	<u>Owner</u>
United States	08/931696	9/16/1997	5893953	4/13/1999	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	09/103866	6/24/1998	6099663	8/8/2000	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	09/527144	3/16/2000	6695934	2/24/2004	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	09/808337	3/14/2001	6679956	1/20/2004	Process for Making Copper-Tin-Zinc Alloys	GBC Metals, LLC
United States	09/923137	8/6/2001	6749699	6/15/2004	Silver Containing Copper Alloy	GBC Metals, LLC
United States	10/930316	8/31/2004	6905782	6/14/2005	Tarnish Detering Tin Coating	GBC Metals, LLC
United States	10/653582	9/2/2003	6852427	2/8/2005	Chromium-Free Antitarnish Adhesion Promoting Treatment Composition	GBC Metals, LLC
United States	09/325036	6/7/1999	6241831	6/5/2001	Copper Alloy	GBC Metals, LLC
United States	08/747014	11/7/1996	5865910	2/2/1999	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	08/780116	12/26/1996	5820701	10/13/1998	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	09/311038	4/1/1999	6436206	8/20/2002	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	09/123710	7/28/1998	5916386	6/29/1999	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	09/132440	8/11/1998	5985055	11/16/1999	Copper Alloy and Process for Obtaining Same	GBC Metals, LLC
United States	10/610433	6/30/2003	7182823	2/27/2007	Copper Alloy Containing Cobalt, Nickel and Silicon	GBC Metals, LLC and Wieland Werke AG
United States	09/054899	4/3/1998	6136460	10/24/2000	Tin Coatings Incorporated Selected Elemental Additions to Reduce Discoloration	GBC Metals, LLC
United States	11/246966	10/7/2005	8257515	9/4/2012	Copper Alloy Containing Cobalt, Nickel and Silicon	GBC Metals, LLC and Wieland Werke AG
United States	10/962917	10/12/2004	7391116	6/24/2008	Fretting and Whisker Resistant Coating System and Method	GBC Metals, LLC
United States	11/588111	10/26/2006	8430979	4/30/2013	Copper Alloy Containing Cobalt, Nickel And Silicon	GBC Metals, LLC and Wieland Werke AG

PATENT

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Signature Page for Grant of  
Security Interest in United States Copyrights

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<u>Country</u>	<u>App. No.</u>	<u>File Date</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>	<u>Owner</u>
United States	09/907224	7/17/2001	6797764	9/28/2004	Water-Based Adhesive	GBC Metals, LLC
United States	09/568375	5/10/2000	6348544	2/19/2002	Tinable Water-Based Coating Composition	GBC Metals, LLC
United States	09/400771	9/22/1999	6194513	2/27/2001	Tinable Water-Based Coating Composition	GBC Metals, LLC
United States	08/744288	11/6/1996	5688356	11/18/1997	Water-Based Urethane Adhesive	GBC Metals, LLC
United States	12/145420	6/24/2008	7808109	10/5/2010	Freting And Whisker Resistant Coating System and Method	GBC Metals, LLC
United States	13/864568	4/17/2013			Copper Alloy Containing Cobalt, Nickel And Silicon	GBC Metals, LLC (as successor to registrant Olin Corporation) and Wieland Werke AG
United States	14/216502	3/17/2014			Surface Treated Aluminum Foil For Electronic Circuits	GBC Metals, LLC
United States	14/952763	11/25/2015			Copper-Nickel-Silicon Alloys	GBC Metals, LLC and Wieland Werke AG
United States	10/727920	12/4/2003	7749611	7/6/2010	Peel Strength Enhancement of Copper Laminates	GBC Metals, LLC
United States	11/593949	11/7/2006	7731831	6/8/2010	Method for Manufacturing a Composite Material Including Copper Foil and Support Layer	GBC Metals, LLC
United States	10/965347	10/14/2004	7132158	11/7/2006	Support Layer for Thin Copper Foil	GBC Metals, LLC
United States	09/948166	9/6/2001	6893742	5/17/2005	Copper Foil with Low Profile Bond Enhancement	GBC Metals, LLC
United States	10/017863	12/12/2001	6837980	1/4/2005	Bond Enhancement Antitarnish Coatings	GBC Metals, LLC
United States	09/160029	9/24/1998	6164370	12/26/2000	Enhanced Heat Exchange Tube	GBC Metals, LLC
United States	08529265	9/15/1995	5681662	10/28/1997	Copper Alloy Foils for Flexible Circuits	GBC Metals, LLC
United States	08277928	7/20/1994	5637160	6/10/1997	Corrosion-Resistant Bismuth Brass	GBC Metals, LLC
United States	08436894	5/8/1995	5601665	2/11/1997	Process for Improving the Bend Formability of Copper Alloys	GBC Metals, LLC
United States	08352663	12/9/1994	5573845	11/12/1996	Superficial Coating Layer Having Acicular Structures for Electrical Conductors	GBC Metals, LLC

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Security Interest in United States Copyrights

<u>Country</u>	<u>App. No.</u>	<u>File Date</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>	<u>Owner</u>
United States	08432566	5/1/2995	5565045	10/15/1996	Copperbase alloys having improved bend formability	GBC Metals, LLC
United States		9/27/1993	5540378	7/30/1996	Method for the Assembly of an Electronic Package	GBC Metals, LLC
United States	08300001	9/1/1994	5494209	2/27/1996	A Method for the Manufacture of an Internally Enhanced Welded Tube	GBC Metals, LLC
United States	08382693	2/2/1995	5489373	2/6/1996	Aqueous Zinc Solution Resistant to Precipitation	GBC Metals, LLC
United States	08233147	4/25/1994	5486244	1/23/1996	Process for improving the bend formability of copper alloys	GBC Metals, LLC
United States	08372272	1/13/1995	5472796	12/5/1995	Copper alloy clad for coinage	GBC Metals, LLC
United States	08814163	3/10/1997	6067712	5/30/2000	Heat Exchange Tube with Embossed Enhancement	GBC Metals, LLC
United States	08879689	6/24/1997	5800930	9/1/1998	Nodular Copper/Nickel Alloy Treatment for Copper Foil	GBC Metals, LLC
United States	08449173	5/24/1995	5730189	3/24/1998	Internally and Externally Enhanced Welded Tube	GBC Metals, LLC

CONFIRMATORY GRANT OF SECURITY INTEREST  
 IN UNITED STATES COPYRIGHTS  
 Exhibit C - SCHEDULE OF COPYRIGHTS

	<u>Copyright Title</u>	<u>Registration No.</u>	<u>Registration Date</u>	<u>Owner</u>
1.	Total quality management using statistical methods: training manual / prepared by Gerald A. Emperor.	TX0003095969	15-APR-1991	GBC Metal, LLC (as successor to registrants A.J. Oster, LLC and Gerald A. Emperor)
2.	Olin brass alloy guide.	TX0001605891	18-MAR-1985	GBC Metals, LLC (as successor to registrant Olin Corporation)
3.	Olin brass alloy guide.	TX0001560920	18-MAR-1985	GBC Metals, LLC (as successor to registrant Olin Corporation)
4.	Olin brass alloy guide.	TX0001560919	18-MAR-1985	GBC Metals, LLC (as successor to registrant Olin Corporation)
5.	The Visual Appearance of CuVero with Regular Cleaning	TX 7891429	10-FEB-2014	GBC Metals, LLC