PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Patent Security Agreement

CONVEYING PARTY DATA

Name	Execution Date	
GBC Metals, LLC	06/01/2012	

RECEIVING PARTY DATA

Name:	Wells Fargo Bank, National Association
Street Address:	625 Marquette Ave. 11th Floor, MAC N9311-110
City:	Minneapolis
State/Country:	MINNESOTA
Postal Code:	55479

PROPERTY NUMBERS Total: 66

Property Type	Number
Patent Number:	6632300
Patent Number:	6569543
Patent Number:	6893742
Patent Number:	6837980
Patent Number:	6689268
Patent Number:	6471792
Patent Number:	6432556
Patent Number:	6348544
Patent Number:	6346335
Patent Number:	6251199
Patent Number:	6194513
Patent Number:	6183886
Patent Number:	6164370
Patent Number:	6132528
Patent Number:	6093265
	PATENT

REEL: 028300 FRAME: 0834

Patent Number:	6083633
Patent Number:	6067712
Patent Number:	5980656
Patent Number:	5916695
Patent Number:	5494209
Patent Number:	5882442
Patent Number:	5868877
Patent Number:	5489373
Patent Number:	5486244
Patent Number:	5853505
Patent Number:	5800930
Patent Number:	5780172
Patent Number:	5730189
Patent Number:	6797764
Patent Number:	5688356
Patent Number:	5681662
Patent Number:	5637160
Patent Number:	5601665
Patent Number:	5573845
Patent Number:	5565045
Patent Number:	5449951
Patent Number:	5540378
Patent Number:	5306465
Patent Number:	5893953
Patent Number:	6099663
Patent Number:	6695934
Patent Number:	6679956
Patent Number:	6749699
Patent Number:	6905782
Patent Number:	6852427
Patent Number:	6241831
Patent Number:	6689232
Patent Number:	5865910
Patent Number:	5820701
Patent Number:	6436206
	PATENT

	5916386
Patent Number:	5985055
Patent Number:	7182823
Patent Number:	7749611
Patent Number:	6136460
Patent Number:	7391116
Patent Number:	7132158
Patent Number:	5381847
Patent Number:	7731831
Patent Number:	5472796
Patent Number:	7808109
Application Number:	11246966
Application Number:	11588111
Application Number:	12249530
Application Number:	12336731
Application Number:	12943196

CORRESPONDENCE DATA

Fax Number: (212)492-0603

Email: Isilber@paulweiss.com, aashville@paulweiss.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Lindsay N. Silber

Address Line 1: 1285 Avenue of the Americas
Address Line 4: New York, NEW YORK 10019-6064

ATTORNEY DOCKET NUMBER:	18725-008
NAME OF SUBMITTER:	Lindsay N. Silber

Total Attachments: 13

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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT, dated as of June 1, 2012 (as it may be amended, restated, supplemented or otherwise modified from time to time, this "Agreement"), is made by GBC METALS, LLC (the "Grantor") in favor of WELLS FARGO BANK, NATIONAL ASSOCIATION, as collateral agent for the Secured Parties (in such capacity, together with its successors and permitted assigns, the "Notes Collateral Agent").

WHEREAS, the Grantor is party to a Pledge and Security Agreement dated as of June 1, 2012 (the "Pledge and Security Agreement") between the Grantor and the other grantors party thereto and the Notes Collateral Agent pursuant to which the Grantor granted a security interest to the Notes Collateral Agent in the Patent Collateral (as defined below) and is required to execute and deliver this Agreement.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor hereby agrees with the Notes Collateral Agent as follows:

SECTION. 1. Defined Terms

Unless otherwise defined herein, terms defined in the Pledge and Security Agreement and used herein have the meaning given to them in the Pledge and Security Agreement.

SECTION. 2. Grant of Security Interest

The Grantor hereby grants to the Notes Collateral Agent, for the benefit of the Secured Parties, a security interest in and continuing lien on all of the Grantor's right, title and interest in, to and under the following, in each case whether now owned or existing or hereafter acquired, developed, created or arising and wherever located (collectively, the "Patent Collateral"):

all United States and foreign patents and certificates of invention, or similar industrial property rights, and applications for any of the foregoing, including, but not limited to: (i) each patent and patent application listed or required to be listed in Schedule A attached hereto, (ii) all reissues, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (iii) all patentable inventions and improvements thereto, (iv) the right to sue or otherwise recover for any past, present and future infringement or other violation thereof, (v) all Proceeds of the foregoing, including, without limitation, license fees, royalties, income, payments, claims, damages, and proceeds of suit now or hereafter due and/or payable with respect thereto, and (vi) all other rights of any kind accruing thereunder or pertaining thereto throughout the world.

SECTION. 3. Security Agreement

The security interest granted pursuant to this Agreement is granted in conjunction with the security interest granted to the Notes Collateral Agent for the Secured Parties pursuant to the Pledge and Security Agreement, and the Grantor hereby acknowledges and affirms that the rights and remedies of the Notes Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Pledge and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Agreement is deemed to conflict with the Pledge and Security Agreement, the provisions of the Pledge and Security Agreement shall control.

SECTION. 4. Governing Law

THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER AND ALL CLAIMS AND CONTROVERSIES ARISING OUT OF THE SUBJECT MATTER HEREOF WHETHER SOUNDING IN CONTRACT LAW, TORT LAW OR OTHERWISE SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAW PROVISIONS THAT WOULD RESULT IN THE APPLICATION OF ANY OTHER LAW (OTHER THAN ANY MANDATORY PROVISIONS OF LAW RELATING TO THE LAW GOVERNING PERFECTION AND THE EFFECT OF PERFECTION OF THE SECURITY INTEREST).

SECTION. 5. Counterparts

This Agreement may be executed in one or more counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts together shall constitute but one and the same instrument.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Grantor has caused this Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

GBC METALS, LLC

Ву:

Name:

Robert Micchelli

Title:

Chief Financial Officer

[Signature Page to GBC Metals, LLC Patent Security Agreement]

Accepted and Agreed:

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Notes Collateral Agent

Name: Title:

Richard Prokosch Vice President

[Signature Page to GBC Metals, LLC Patent Security Agreement]

SCHEDULE A to PATENT SECURITY AGREEMENT

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status Expiration
United States of America Utility Patent Filing	09/879616 12-Jun-2001	2002- 0044881	6632300 14-Oct-	Granted 12-Jun-
Cumy Fatent Fining	12-3011-2001	18-Apr- 2002	2003	2021
Title: Copper Alloy Having Improved Stress Relaxation Re	sistance			
United States of America	09/784547	2002-	6569543	Granted
Priority Application	15-Feb-	0160219	27-May-	09-Jun-
	2001	31-Oct- 2002	2003	2021
Title: Copper Foil With Low Profile Bond Enhancement				
United States of America	09/948166	2002-	6893742	Granted
Continuation In Part	06-Sep-	0192486	17-May-	15-Feb-
	2001	19-Dec- 2002	2005	2021
Title: Copper Foil With Low Profile Bond				
United States of America	10/017863	2002-	6837980	Granted
Utility Patent Filing	12-Dec-	0112965	04-Jan-	12-Dec-
	2001	22-Aug- 2002	2005	2021
Title: Bond Enhancement Anti-tarnish Coatings				
United States of America	09/842454	2001-	6689268	Granted
Divisional Filing	26-Apr-	0027922	10-Feb-	10-Mar-
	2001	11-Oct- 2001	2004	2020
Title: Copper Foil Composite Including A Release Layer				
United States of America	09/429871		6471792	Granted
Continuation In Part	29-Oct- 1999		29-Oct- 2002	16-Nov- 2018
Title: Stress Relaxation Resistant Brass				
United States of America	09/561110		6432556	Granted
Utility Patent Filing	28-Apr-		13-Aug-	28-Apr-
	2000		2002	2020
Title: Copper Alloy With A Golden Visual Appearance				
United States of America	09/568375		6348544	Granted
Continuation In Part	10-May- 2000		19-Feb- 2002	22-Sep- 2019

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status Expiration
Title: Tintable Water-Based Coating Composition		Date	Date	
United States of America	09/522544		6346335	Granted
Priority Application	10-Mar- 2000		12-Feb- 2002	10-Mar- 2020
Title: Copper Foil Composite Including a Release Layer				
United States of America	09/304803		6251199	Granted
Priority Application	04-May- 1999		26-Jun- 2001	04-May- 2019
Title: Copper Alloy Having Improved Resistance to Crack	ing Due to Loca	alized Stress		
United States of America	09/400771		6194513	Granted
Priority Application	22-Sep- 1999		27-Feb- 2001	22-Sep- 2019
Title: Tintable Water-Based Coating Composition				
United States of America	09/213545		6183886	Granted
Continuation In Part	17-Dec- 1998		06-Feb- 2001	03-Apr- 2018
Title: Tin Coatings Incorporating Selected Elemental Addi		Discoloration		
United States of America	09/160029		6164370	Granted
Divisional Filing	24-Sep- 1998		26-Dec- 2000	16-Jul- 2013
Title: Enhanced Heat Exchange Tube				
United States of America	09/103681		6132528	Granted
Continuation In Part	23-Jun-1998		17 - Oct- 2000	18-Apr- 2017
Title: Iron Modified Tin Brass				
United States of America	09/099297		6093265	Granted
Continuation In Part	18-Jun-1998		25-Jul- 2000	22-Jul- 2017
Title: Copper May Having Improved Stress Relaxation				
United States of America	08/877020		6083633	Granted
Continuation	16-Jun-1997		04-Jul- 2000	18-Dec- 2015
Title: Multi-Layer Diffusion Barrier for a Tin Coated Elec	trical Connecto	r		

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status Expiration
United States of America	08/814163		6067712	Granted
Continuation	10-Mar- 1997		30-May- 2000	15-Dec- 2013
Title: Heat Exchange Tube with Embossed Enhancement				
United States of America	08/898694		5980656	Granted
Priority Application	22-Jul-1997		09-Nov- 1999	22-Jul- 2017
Title: Copper Alloy with Magnesium Addition				
United States of America	08/769912		5916695	Granted
Continuation In Part	09-Dec- 1996		29-Jun- 1999	18-Dec- 2015
Title: Tin Coated Electrical Connector				
United States of America	08/300001		5494209	Granted
Continuation In Part	01-Sep- 1994		27-Feb- 1996	27-Feb- 2013
Title: Method for the Manufacture Of An Internally Enhan		ıbe		
United States of America	08/591065		5882442	Granted
Utility Patent Filing	09-Feb- 1996		16-Mar- 1999	09-Feb- 2016
Title: Iron Modified Phosphor-Bronze				
United States of America	08/898053		5868877	Granted
Priority Application	22-Jul-1997		09-Feb- 1999	22-Jul- 2017
Title: Copper Alloy Having Improved Stress Relaxation				
United States of America	08/382693		5489373	Granted
Priority Application	02-Feb- 1995		06-Feb- 1996	02-Feb- 2015
Title: Aqueous Zinc Solution Resistant to Precipitation				
United States of America	08/233147		5486244	Granted
Continuation In Part	25-Apr- 1994		23-Jan- 1996	23-Jan- 2013
Title: Process For Improving The Bend Formability Of Co	pper Alloys			

Country Case Type	Application No. Filing Date	Publication No. Publication	Patent No. Patent	Status Expiration
United States of America	08/844478	Date	Date 5853505	Granted
Priority Application	18-Apr- 1997		29-Dec- 1998	18-Apr- 2017
Title: Iron Modified Tin Brass				
United States of America	08/879689		5800930	Granted
Continuation	24-Jun-1997		01-Sep- 1998	21-Jan- 2014
Title: Nodular Copper/Nickel Alloy Treatment for Copper	Foil			
United States of America	08/657211		5780172	Granted
Continuation In Part	03-Jun-1996		14-Jul- 1998	18-Dec- 2015
Title: Tin Coated Electrical Connector				
United States of America	08/449173		5730189	Granted
Continuation In Part	24-May- 1995		24-Mar- 1998	24-Mar- 2015
Title: Internally And Externally Enhanced Welded Tube				
United States of America	08/744288		5688356	Granted
Priority Application	06-Nov- 1996		18-Nov- 1997	06-Nov- 2016
Title: Water-Based Urethane Adhesive				
United States of America	08/529265		5681662	Granted
Priority Application	15-Sep- 1995		28-Oct- 1997	15-Sep- 2015
Title: Copper Alloy Foils for Flexible Circuits				
United States of America	08/277928		5637160	Granted
Continuation In Part	20-Jul-1994		10 -Jun- 1997	10-Jun- 2014
Title: Corrosion-Resistant Bismuth Brass				
United States of America	08/436894		5601665	Granted
Continuation In Part	08-May- 1995		11-Feb- 1997	11-Feb- 2014
Title: Process for Improving the Bend Formability of Copp	er Alloys			

Country Case Type	Application No.	Publication No.	Patent No.	Status Expiration
Case Type	Filing Date	Publication Date	Patent Date	Expiration
United States of America	08/352663		5573845	Granted
Priority Application	09-Dec- 1994		12-Nov- 1996	09-Dec- 2014
Title: Superficial Coating Layer Having Acicular Structure	es for Electrical	Conductors		
United States of America	08/432566		5565045	Granted
Continuation In Part	01-May- 1995		15 - Oct- 1996	04-Nov- 2012
Title: Copper Base Alloys Having Improved Bend Formab				
United States of America	08/270064		5449951	Granted
Continuation In Part	01-Jul-1994		12-Sep- 1995	12-Sep- 2012
Title: Lead Frames with Improved Adhesion to a Polymer				
United States of America	08/126862		5540378	Granted
Priority Application	27-Sep- 1993		30-Jul- 1996	27-Sep- 2013
Title: Method for the Assembly of an Electronic Package				
United States of America	07/971499		5306465	Granted
Priority Application	04-Nov- 1992		26-Apr- 1994	04-Nov- 2012
Title: Copper Alloy Having High Strength and High Electr	ical Conductivi	ty		
United States of America	08/931696		5893953	Granted
Priority Application	16-Sep- 1997		13-Apr- 1999	16-Sep- 2017
Title: Copper Alloy and Process for Obtaining Same				
United States of America	09/103866		6099663	Granted
Divisional Filing	24-Jun-1998		08-Aug- 2000	16-Sep- 2017
Title: Copper Alloy and Process for Obtaining Same				
United States of America	09/527144		6695934	Granted
Continuation	16-Mar- 2000		24-Feb- 2004	16-Sep- 2017
Title: Copper Alloy and Process for Obtaining Same				

Country Case Type	Application No. Filing Date	Publication No. Publication	Patent No. Patent	Status Expiration
	g	Date	Date	
United States of America	09/808337	2001-	6679956	Granted
Continuation In Part	14-Mar- 2001	0010243 02-Aug-	20-Jan- 2004	16-Sep- 2017
Owner: GBC Metals, LLC		2001		
Title: Process for Making Copper-Tin-Zinc Alloys				
United States of America	09/923137	2002-	6749699	Granted
Utility Patent Filing	06-Aug- 2001	0039542 04-Apr- 2002	15-Jun- 2004	06-Aug- 2021
Owner: GBC Metals, LLC		2002		
Title: Silver Containing Copper Alloy				
United States of America	10/930316	2005-	6905782	Granted
Continuation	31-Aug- 2004	0025990 03-Feb- 2005	14-Jun- 2005	08-Sep- 2020
Owner: GBC Metals, LLC		2003		
Title: Tarnish Deterring Tin Coating				
United States of America	10/653582	2005- 0048298	6852427	Granted
Priority Application	02-Sep- 2003	03-Mar- 2005	08-Feb- 2005	02-Sep- 2023
Owner: GBC Metals, LLC Title: Chromium-Free Antitarnish Adhesion Promoting Treatment Composition				
United States of America	09/325036		6241831	Granted
Priority Application	07-Jun-1999		05-Jun- 2001	07-Jun- 2019
Owner: GBC Metals, LLC				
Title: Copper Alloy				
United States of America Divisional Filing	09/800989 07-Mar- 2001	2001- 0009168 26-Jul-2001	6689232 10-Feb- 2004	Granted 07-Jun- 2019
Owner: GBC Metals, LLC				
Title: Copper Alloy				
United States of America	08/747014		5865910	Granted
Priority Application	07-Nov- 1996		02-Feb- 1999	07-Nov- 2016
Owner: GBC Metals, LLC				
Title: Copper Alloy and Process for Obtaining Same				
United States of America	08/780116		5820701	Granted
Continuation In Part	26-Dec- 1996		13 - Oct- 1998	07-Nov- 2016
Owner: GBC Metals, LLC				

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status Expiration
Title: Copper Alloy and Process for Obtaining Same		Date	Date	
United States of America	09/311038		6436206	Granted
Priority Application	01-Apr- 1999		20-Aug- 2002	01-Apr- 2019
Owner: GBC Metals, LLC				
Title: Copper Alloy and Process for Obtaining Same				
United States of America	09/123710		5916386	Granted
Divisional Filing	28-Jul-1998		29-Jun- 1999	26-Dec- 2016
Owner: GBC Metals, LLC				
Title: Copper Alloy and Process for Obtaining Same				
United States of America	09/132440		5985055	Granted
Continuation	11-Aug- 1998		16-Nov- 1999	07-Nov- 2016
Owner: GBC Metals, LLC				
Title: Copper Alloy and Process for Obtaining Same				
United States of America	10/610433	2004- 0079456	7182823	Granted
Utility Patent Filing	30-Jun-2003	29-Apr- 2004	27-Feb- 2007	30-Jun- 2023
Owner: GBC Metals, LLC		2004		
Title: Copper Alloy Containing Cobalt, Nickel and Silicon				
United States of America	10/727920	2004- 0180225	7749611	Granted
Utility Patent Filing	04-Dec- 2003	16-Sep- 2004	06-Jul- 2010	13-May- 2026
Owner: GBC Metals, LLC		2001		
Title: Peel Strength Enhancement of Copper Laminates				
United States of America	09/054899		6136460	Granted
Priority Application	03-Apr- 1998		24-Oct- 2000	03-Apr- 2018
Owner: GBC Metals, LLC				
Title: Tin Coatings Incorporated Selected Elemental Additions to Reduce Discoloration				
United States of America	10/962917	2005-	7391116	Granted
Utility Patent Filing	12-Oct- 2004	0106408 19-May- 2005	24-Jun- 2008	16-Jun- 2025
Owner: GBC Metals, LLC		2003		
Title: Fretting and Whisker Resistant Coating System and Method				
United States of America	10/965347	2005-	7132158	Granted
Utility Patent Filing	14-Oct- 2004	0089709 28-Apr- 2005	07-Nov- 2006	14-Oct- 2024
Owner: GBC Metals, LLC		2003		
Title: Support Layer for Thin Copper Foil				

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status Expiration
United States of America	08/074189		5381847	Granted
Utility Patent Filing	10-Jun-1993		17 - Jan- 1995	10-Jun- 2013
Owner: GBC Metals, LLC				
Title: Vertical Casting Process				
United States of America	11/593949	2007-	7731831 08-Jun-	Granted 16-Oct-
Continuation	ation 07-Nov- 0141380			
	2006	21-Jun- 2007	2010	2026
Owner: GBC Metals, LLC		2007		
Title: Method for Manufacturing a Composite Material Including Copper Foil and Support Layer				
United States of America	08/372272		5472796	Granted
Utility Patent Filing	13-Jan-1995		05-Dec- 1995	13-Jan- 2015
Owner: GBC Metals, LLC				
Title: Copper Alloy Clad for Coinage				
United States of America	12/145420	2009-	7808109	Granted
Continuation	24-Jun-2008	0017327	05-Oct-	12-Oct-
		15-Jan-2009	2010	2024
Owner: GBC Metals, LLC				
Title: Fretting And Whisker Resistant Coating System and Method				
United States of America	09/907224	2002-	6797764	Granted
Continuation	17-Jul-2001	0002232	28-Sep-	3-Feb-
		3-Jan-2002	2004	2020

Owner: GBC Metals, LLC
Title: Water-based adhesive

U.S. Patent Applications

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status
United States of America	11/246966	2006-0076090		Pending
Utility Patent Filing	7-Oct-2005	13-Apr-2006		
Owner: GBC Metals, LLC				
Title: Copper Alloy Containing	Cobalt, Nickel and Sili	con		

Country Case Type	Application No. Filing Date	Publication No. Publication Date	Patent No. Patent Date	Status
United States of America	11/588111	2007-0131315		Pending
Utility Patent Filing	26-Oct-2006	14-Jun-2007		
Owner: GBC Metals, LLC				
Title: Copper Alloy Containing Co	balt, Nickel and Silic	con		
United States of America	12/249530	2009-0098011		Pending
Utility Patent Filing	10-Oct-2008	16-Apr-2009		
Owner: GBC Metals, LLC				
Title: Copper Tin Nickel Phosphor of Making Same			rmability a	
United States of America	12/336731	2009-0183803		Pending
Utility Patent Filing	17-Dec-2008	23-Jul-2009		
Owner: GBC Metals, LLC				
Title: Copper Nickel Silicon Alloys				
United States of America	12/943196	2011-0165013		Pending
Utility Patent Filing	10-Nov-2010	7-Jul-2011		
Owner: GBC Metals, LLC				
Title: Antitarnish, Antimicrobial C	Copper Alloys and Su	ırfaces Made From Sı	ich Alloys	

RECORDED: 06/01/2012