TRADEMARK ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT After-Acquired Intellectual Property Security Agreement (Second Supplemental NATURE OF CONVEYANCE:

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
Ferro Corporation		07/23/2010	CORPORATION: OHIO

RECEIVING PARTY DATA

Name:	PNC Bank, National Association (as successor-by-merger to National City Bank), as Collateral Agent
Street Address:	500 First Avenue
City:	Pittsburg
State/Country:	PENNSYLVANIA
Postal Code:	15219
Entity Type:	National Banking Association: UNITED STATES

PROPERTY NUMBERS Total: 3

Property Type	Number	Word Mark
Registration Number:	3664035	EVOLUTION
Registration Number:	3655259	SURESTOP
Registration Number:	3655260	TRUPLANE

CORRESPONDENCE DATA

Fax Number: (714)755-8290

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 714-540-1235 Email: ipdocket@lw.com Correspondent Name: Latham & Watkins LLP

Address Line 1: 650 Town Center Drive, Suite 2000 Costa Mesa, CALIFORNIA 92626 Address Line 4:

ATTORNEY DOCKET NUMBER: 030786-0375

NAME OF SUBMITTER: Anna T Kwan

TRADEMARK

REEL: 004256 FRAME: 0310

Signature:	/Anna T Kwan/
Date:	08/06/2010
Total Attachments: 8 source=Ferro_ Second After Acquired IP Ag	greement(1672031_1_NY)#page2.tif greement(1672031_1_NY)#page3.tif greement(1672031_1_NY)#page4.tif greement(1672031_1_NY)#page5.tif greement(1672031_1_NY)#page6.tif greement(1672031_1_NY)#page7.tif

AFTER-ACQUIRED INTELLECTUAL PROPERTY SECURITY AGREEMENT

(SECOND SUPPLEMENTAL FILING)

This INTELLECTUAL PROPERTY SECURITY AGREEMENT (SECOND SUPPLEMENTAL FILING), dated as of July 23, 2010 (as amended, supplemented or otherwise modified from time to time, the "Second Supplemental Intellectual Property Security Agreement"), is made by each of the signatories hereto (collectively, the "Grantors") in favor of PNC BANK, NATIONAL ASSOCIATION (as successor-by-merger to National City Bank), as Collateral Agent (together with its successors and assigns in such capacity, the "Collateral Agent") for the Secured Parties (as defined in the Credit Agreement referred to below). Capitalized terms used and not defined herein have the meanings given such terms in the Credit Agreement and the Security Agreement (each, as defined below).

WHEREAS, FERRO CORPORATION, an Ohio corporation (the "<u>Company</u>"), certain Subsidiaries of the Company from time to time party thereto, the various financial institutions and other Persons from time to time party thereto, CREDIT SUISSE, CAYMAN ISLANDS BRANCH, as Original Term Loan Administrative Agent, PNC BANK, NATIONAL ASSOCIATION, as New Term Loan Administrative Agent and Revolving Loan Administrative Agent, the Collateral Agent, KEYBANK NATIONAL ASSOCIATION, as Documentation Agent and CITIGROUP GLOBAL MARKETS INC., as Syndication Agent, have entered into a Second Amended and Restated Credit Agreement, dated as of October 26, 2009 (as otherwise amended, restated, supplemented, waived or otherwise modified from time to time, the "<u>Credit Agreement</u>");

WHEREAS, as a condition to the making of Loans and the issuance of, and participation in, Letters of Credit, under the Credit Agreement, each Grantor has executed and delivered that certain Pledge and Security Agreement, dated as of June 6, 2006, in favor of the Collateral Agent (as otherwise amended, restated, supplemented, waived or otherwise modified from time to time, the "Security Agreement");

WHEREAS, under the terms of the Security Agreement, the Grantors have granted a security interest in certain Collateral, including, without limitation, certain Intellectual Property Collateral, including but not limited to after-acquired Intellectual Property Collateral of the Grantors to the Collateral Agent for the ratable benefit of the Secured Parties, and have agreed as a condition thereof to execute this Second Supplemental Intellectual Property Security Agreement for recording with the United States Patent and Trademark Office, the United States Copyright Office, and other applicable Governmental Authorities;

WHEREAS, (i) the Patent Security Agreement, dated as of April 19, 2006, by the Company, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 27, 2006, at Reel/Frame No. 017527/0909; (ii) the Patent Security Agreement dated as of June 6, 2006, by the Company, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 7, 2006, at Reel/Frame No. 017730/0594; (iii) the Patent Security Agreement, dated as of April 19, 2006, (iv) the Patent Security Agreement, dated as of April 19, 2006, by the Company (as successor-

by-merger to Ferro Color & Glass Corporation), was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 26, 2006, at Reel/Frame No. 017527/0056; (v) the Patent Security Agreement, dated as of June 6, 2006 (as subsequently amended by that certain Attestation & Confirmation of Security Interest, dated as of July 23, 2010 filed on or about the date hereof), by the Company, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 8, 2006, at Reel/Frame No. 017746/0052; (vi) the Patent Security Agreement, dated as of April 19, 2006, by FERRO PFANSTIEHL LABORATORIES, INC., a Delaware corporation ("Ferro Pfanstiehl"), was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 26, 2006, at Reel/Frame No. 017527/0047; (vii) the Patent Security Agreement, dated as of June 6, 2006, by Ferro Color & Glass, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 8, 2006, at Reel/Frame No. 017746/0042; (viii) the Patent Security Agreement, dated as of April 19, 2006, by FERRO ELECTRONIC MATERIALS INC., a Delaware corporation ("Ferro Electronic"), was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 26, 2006, at Reel/Frame No. 017746/0269; and (ix) the Patent Security Agreement, dated as of June 6, 2006, by Ferro Electronic, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 8, 2006, at Reel/Frame No. 017746/0062;

WHEREAS, (i) the Trademark Security Agreement dated as of April 19, 2006, by the Company, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 25, 2006, at Reel/Frame No. 3296/0477; (ii) the Trademark Security Agreement, dated as of April 19, 2006, by the Company (as successor-by-merger to Ferro Color & Glass Corporation), was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 25, 2006, at Reel/Frame No. 3296/0868; (iii) the Trademark Security Agreement, dated as of June 6, 2006, by the Company (as successor-by-merger to Ferro Color & Glass Corporation), was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 7, 2006, at Reel/Frame No. 3323/0203; (iv) the Trademark Security Agreement dated as of June 6, 2006, by the Company, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 7, 2006, at Reel/Frame No. 3323/0286; (v) the Trademark Security Agreement, dated as of April 19, 2006, by Ferro Electronic, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on April 25, 2006, at Reel/Frame No. 3296/0859; and (vi) the Trademark Security Agreement, dated as of June 6, 2006, by Ferro Electronic, was recorded against certain United States Intellectual Property, with the U.S. Patent and Trademark Office on June 7, 2006, at Reel/Frame No. 3323/0164; and

WHEREAS, the After-Acquired Intellectual Property Security Agreement (First Supplemental Filing, dated as of March 31, 2009, by the Company, Ferro Color & Glass and Ferro Pfanstiehl, was recorded against certain United States Intellectual Property with the U.S. Patent and Trademark Office on April 2, 2009, at Reel/Frame Nos. 022494/0945, 02249/0933, and 022510/0030 for the patents, and at Reel/Frame Nos. 3969/0847 and 3969/0530 for the trademarks, and the Library of Congress, Copyright Office on April 10, 2009, at Microfilm V3577 D166 P1-10 for the registered copyrights.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantors agree as follows:

- SECTION 1. Grant of Security. Each Grantor hereby grants to the Collateral Agent for the ratable benefit of the Secured Parties a security interest in and to all of such Grantor's right, title and interest in and to the following (the "Intellectual Property Collateral"), as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of such Grantor's Obligations:
- (a) (i) all domestic and foreign trademarks, service marks, trade names, corporate names, company names, business names, trade dress, trade styles, logos, or other indicia of origin or source identification, Internet domain names, trademark and service mark registrations, and applications for trademark or service mark registrations and any renewals thereof, including, without limitation, each registration and application identified in <u>Schedule 1</u>, (ii) the right to sue or otherwise recover for any and all past, present and future infringements and dilutions thereof, (iii) all income, royalties, damages and other payments now and hereafter due and/or payable with respect thereto (including, without limitation, payments under all trademark licenses entered into in connection therewith, and damages and payments for past, present or future infringements or dilutions thereof), and (iv) all other rights of any kind whatsoever accruing thereunder or pertaining thereto, together in each case with the goodwill of the business connected with the use of, and symbolized by, each of the above (collectively, the "Trademarks");
- (b) (i) all domestic and foreign patents, patent applications and patentable inventions, including, without limitation, each issued patent and patent application identified in Schedule 1, all certificates of invention or similar property rights (ii) all inventions and improvements described and claimed therein, (iii) the right to sue or otherwise recover for any and all past, present and future infringements thereof, (iv) all income, royalties, damages and other payments now and hereafter due and/or payable with respect thereto (including, without limitation, payments under all patent licenses entered into in connection therewith, payments arising out of any other sale, lease, license or other disposition thereof and damages and payments for past, present or future infringement thereof), and (v) all reissues, divisions, continuations, continuations-in-part, substitutes, renewals, and extensions thereof, all improvements thereon and all other rights of any kind whatsoever accruing thereunder or pertaining thereto (collectively, the "Patents");
- (c) (i) all domestic and foreign copyrights, whether or not the underlying works of authorship have been published, including but not limited to copyrights in software and databases, all Mask Works (as defined in 17 U.S.C. 901 of the U.S. Copyright Act) and all works of authorship and other intellectual property rights therein, all copyrights of works based on, incorporated in, derived from or relating to works covered by such copyrights, all right, title and interest to make and exploit all derivative works based on or adopted from works covered by such copyrights, and all copyright registrations and copyright applications, and any renewals or extensions thereof, including, without limitation, each registration and application identified in Schedule 1, (ii) the rights to print, publish and distribute any of the foregoing, (iii) the right to sue or otherwise recover for any and all past, present and future infringements and misappropriations thereof, (iv) all income, royalties, damages and other payments now and

hereafter due and/or payable with respect thereto (including, without limitation, payments under all copyright licenses entered into in connection therewith, payments arising out of any other sale, lease, license or other disposition thereof and damages and payments for past, present or future infringements thereof), and (v) all other rights of any kind whatsoever accruing thereunder or pertaining thereto (collectively, the "Copyrights");

- (d) (i) all licenses or agreements, whether written or oral, providing for the grant by or to any Grantor of: (A) any right to use any Trademark Collateral or Trade Secret Collateral, (B) any right under any Patent Collateral, and (C) any right under any Copyright Collateral, (ii) the right to sue or otherwise recover for any and all past, present and future infringements and misappropriations of any of the foregoing, (iii) all income, royalties, damages and other payments now and hereafter due and/or payable with respect thereto (including, without limitation, payments under all licenses entered into in connection therewith, and damages and payments for past, present or future infringements thereof), and (iv) all other rights of any kind whatsoever of such Grantor accruing thereunder or pertaining thereto; and
 - (e) any and all proceeds of the foregoing.

SECTION 2. <u>Recordation</u>. Each Grantor authorizes and requests that the Register of Copyrights, the Commissioner of Patents and Trademarks and any other applicable government officer record this Second Supplemental Intellectual Property Security Agreement.

SECTION 3. <u>Execution in Counterparts</u>. This Second Supplemental Intellectual Property Security Agreement may be executed in any number of counterparts (including by telecopy or email transmission containing a PDF file), 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.

SECTION 4. <u>Governing Law</u>. This Second Supplemental Intellectual Property Security Agreement shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

SECTION 5. <u>Conflict Provision</u>. This Second Supplemental Intellectual Property Security Agreement has been entered into in conjunction with the provisions of the Security Agreement and the Credit Agreement. The rights and remedies of each party hereto 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 Credit Agreement, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Second Supplemental Intellectual Property Security Agreement are in conflict with the Security Agreement or the Credit Agreement, the provisions of the Security Agreement or the Credit Agreement shall govern.

[Signature Page to Follow]

IN WITNESS WHEREOF, each of the undersigned has caused this Second Supplemental Intellectual Property Security Agreement to be duly executed and delivered as of the date first above written.

FERRO CORPORATION

Name: JOHNT BENGLE
Title: TREASMER

Accepted:

PNC BANK, NATIONAL ASSOCIATION as Collateral Agent

By:

Name: Christian S. Brown Title: Senior Vice President

SCHEDULE I

to

AFTER-ACQUIRED INTELLECTUAL PROPERTY SECURITY AGREEMENT

U.S. PATENTS

Owner: Ferro Corporation

Ferro Corporation	Application No.	Patent No.
Title	Filing Date	Issue Date
X8R Dielectric composition for use with nickel electrodes	12/434752	
	5/4/2009	
Method of making multilayer structures using tapes on non-densifying substrates	12/464980	
include of making maintager statetates using tapes on non-densitying substates	5/13/2009	
Ultra low temperature fixed x7r and bx dielectric ceramic composition and method of	11/681796	7521390
making	3/5/2007	4/21/2009
Production of porous materials by supercritical fluid processing	10/552008	
	3/13/2007	
Nanoparticles from supercritical fluid antisolvent process using particle growth and	10/531160	
agglomeration retardants	4/12/2005	
Nanoparticles from supercritical fluid antisolvent process using particle growth and	10/531160	
agglomeration retardants	5/28/2004	
Method and apparatus for enhanced size reduction of particles	10/541909	
	2/24/2004	
Method and apparatus for supercritical fluid assisted particle production	10/541292	
	1/30/2004	
Lyophilization method and apparatus for producing particles	10/434435	6931888
	5/8/2003	8/23/2005
Composite particles and method for preparing	10/441137	6966990
	5/19/2003	11/22/2005
Method and apparatus for enhanced size reduction of particles using supercritical fluid	10/932559	6986846
liquefaction of materials	9/2/2004	1/17/2006
Particles from supercritical fluid extraction of emulsion	10/423492	6998051
	4/25/2003	2/14/2006
Lyophilization method and apparatus for producing particles	11/078554	7073349
	3/11/2005	7/11/2006
Method and apparatus for continuous particle production using supercritical fluid	10/434426	7083748
	5/8/2003	8/1/2006
Method of forming particles	11/536330	7208106
	10/15/2004	4/24/2007
Method for preparation of particles from solution-in-supercritical fluid or compressed	10/534665	7279181
gas emulsions	6/2/2004	10/9/2007
Method and apparatus for producing composite particles using supercritical fluid as	10/531008	7449136
plasticizing and extracting agent	2/18/2004	11/11/2008
Method and apparatus for producing particles using supercritical fluid	10/789422	7455797
	2/27/2004	11/25/2008

NY\1591631.3

U.S. TRADEMARKS

Owner: Ferro Corporation

Ferro Corporation Mark	International Class(es)	Application No. Filing Date	Registration No. Registration Date
EVOLUTION	002	77031862 30-OCT-2006	3664035 04-AUG-2009
SURESTOP	001	77205209 13-JUN-2007	3655259 14-JUL-2009
TRUPLANE	001	77205214 13-JUN-2007	3655260 14-JUL-2009

NY\1591631.3

RECORDED: 08/06/2010