

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM725321

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

## CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
Chromaflo Technologies Corporation		04/21/2022	Corporation: OHIO
Ferro Corporation		04/21/2022	Corporation: OHIO
Ferro Electronic Materials Inc.		04/21/2022	Corporation: DELAWARE
Prince Energy LLC		04/21/2022	Limited Liability Company: DELAWARE
Prince Minerals LLC		04/21/2022	Limited Liability Company: DELAWARE
Prince Specialty Products LLC		04/21/2022	Limited Liability Company: MARYLAND

## RECEIVING PARTY DATA

<b>Name:</b>	Credit Suisse AG, Cayman Islands Branch, as administrative agent
<b>Street Address:</b>	11 Madison Avenue
<b>City:</b>	New York
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10010
<b>Entity Type:</b>	Aktiengesellschaft (Ag): SWITZERLAND

## PROPERTY NUMBERS Total: 108

Property Type	Number	Word Mark
Registration Number:	4558518	UVSOLUTIONS
Registration Number:	4364025	COLORTREND
Registration Number:	4367504	CHROMA-CHEM
Registration Number:	4377606	CHROMAFLO TECHNOLOGIES
Registration Number:	4377607	CHROMAFLO TECHNOLOGIES
Registration Number:	4253521	TINT-AYD
Registration Number:	4198518	808
Registration Number:	4198514	844
Registration Number:	4198492	846
Registration Number:	4198493	897
Registration Number:	4152029	PORTFOLIO OF COLOR
Registration Number:	4280319	COLORTREND

TRADEMARK

Property Type	Number	Word Mark
Registration Number:	4262007	CHROMA-CHEM
Registration Number:	4136848	VIVID EXPRESSIONS
Registration Number:	3485557	INFRACOOOL
Registration Number:	3389495	CHROMACURE
Registration Number:	3376958	SYNERMIX
Registration Number:	3038036	SPARTACRYL PM
Registration Number:	2751030	ACCUMAG
Registration Number:	2509852	UCD
Registration Number:	1492773	PLASTICOLORS
Registration Number:	1488021	PLASTICOLORS
Registration Number:	1451611	CHROMAFLO
Registration Number:	1453760	PLASTISPERSE
Registration Number:	1451612	COLORMATCH
Registration Number:	1447021	SOL-U-PAK
Registration Number:	1449133	PLASTIGEL
Registration Number:	0845692	CAL-TINT
Registration Number:	5362695	THERMARK
Registration Number:	5196139	FERRO WHERE INNOVATION DELIVERS PERFORMA
Registration Number:	5492508	FERRO WHERE INNOVATION DELIVERS PERFORMA
Registration Number:	5219023	WHERE INNOVATION DELIVERS PERFORMANCE
Registration Number:	4325446	AQUARELEASE
Registration Number:	3655260	TRUPLANE
Registration Number:	3664035	EVOLUTION
Registration Number:	3207819	LENSMAX
Registration Number:	2988075	ACE
Registration Number:	2711906	COOL COLORS
Registration Number:	2581488	CERMARK
Registration Number:	2597392	CERMARK
Registration Number:	2655640	ESL
Registration Number:	2845284	ECLIPSE
Registration Number:	2444691	CERMARK
Registration Number:	2438817	CERMARK
Registration Number:	1836504	GEODE
Registration Number:	1779957	PDI
Registration Number:	1393723	ALOX
Registration Number:	1280330	FERROFLEX
Registration Number:	1221372	AMERICAL
Registration Number:	1105842	PERC

Property Type	Number	Word Mark
Registration Number:	1004166	CONDUCTROX
Registration Number:	0923047	MIRAMAX
Registration Number:	0839806	CE-RITE
Registration Number:	0812789	TIZOX
Registration Number:	0781180	VIBROXIDE
Registration Number:	0708245	ZOX
Registration Number:	0710108	
Registration Number:	0684616	FERRO
Registration Number:	0545912	FERRO
Registration Number:	0549848	FERRO
Registration Number:	0419066	
Registration Number:	0433994	TICON
Registration Number:	4989160	PRIMO
Registration Number:	4353509	PRONTO PLUG
Registration Number:	4353510	FIBERFLUID
Registration Number:	5903066	SCALESIELD
Registration Number:	5756812	GRANUSOL
Registration Number:	5679044	CERAMCAST
Registration Number:	4834480	PRINCE
Registration Number:	4834481	PRINCE SOURCE TO SOLUTION
Registration Number:	4834482	
Registration Number:	4698408	RED CROWN DRY APPLIED COLORANTS
Registration Number:	4694569	RED CROWN DRY APPLIED SAND COLORANTS
Registration Number:	4706736	RED CROWN ENGINEERED ENGOBES
Registration Number:	4691011	RED CROWN GLAZES
Registration Number:	4694571	RED CROWN IRON OXIDES
Registration Number:	4694574	RED CROWN TRANSLUCENT ENGOBES
Registration Number:	4694575	RED CROWN VARI-TONE ENGOBES
Registration Number:	4698302	DENSFIL IND
Registration Number:	4698303	DENSFIL
Registration Number:	4792845	GRANU-SPECK
Registration Number:	4806423	E CAST
Registration Number:	4801936	E SHIELD
Registration Number:	4698259	MASTERTOP
Registration Number:	4698260	SLAG-GETTER
Registration Number:	4726072	PRINCE MINERALS
Registration Number:	3950461	SURE START
Registration Number:	3950463	BRICKMAX

Property Type	Number	Word Mark
Registration Number:	3953410	LIGNIN LS-50
Registration Number:	3608837	BLACKCAST
Registration Number:	3608838	REDCAST
Registration Number:	3608839	PYRITEMAX
Registration Number:	3605715	CHROMECAST
Registration Number:	3605716	ZIR-CAST
Registration Number:	3411348	PRINCE
Registration Number:	3321115	GLASSOX
Registration Number:	3168380	PYROLOX
Registration Number:	2702268	IGC TECHNOLOGIES
Registration Number:	2541388	METALLPUR
Registration Number:	2279313	BRICKOX
Registration Number:	2334660	CHROMOX
Registration Number:	2310942	MAGNAFLOAT
Registration Number:	1902265	PRINCE
Registration Number:	1880296	VEINSEAL
Registration Number:	5030230	ERACHEM
Registration Number:	4432413	TECMANGAM
Registration Number:	3764729	GIGACLEAN
Registration Number:	3764730	SUPERNOVA

#### CORRESPONDENCE DATA

Fax Number: 2028357586

*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: 202-835-7500

Email: dcip@milbank.com

Correspondent Name: Javier J. Ramos

Address Line 1: 1850 K Street, NW, Suite 1100

Address Line 2: Milbank, LLP

Address Line 4: Washington, D.C. 20006

ATTORNEY DOCKET NUMBER:	28302.00142
NAME OF SUBMITTER:	Javier J. Ramos
SIGNATURE:	/Javier J. Ramos/
DATE SIGNED:	05/02/2022

#### Total Attachments: 32

source=4. Project Fortune - Intellectual Property Security Agreement (Executed)#page1.tif

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**INTELLECTUAL PROPERTY SECURITY AGREEMENT**

This INTELLECTUAL PROPERTY SECURITY AGREEMENT is entered into as of April 21, 2022, (this "Agreement"), by Chromaflo Technologies Corporation, an Ohio corporation, Ferro Corporation, an Ohio corporation, Ferro Electronic Materials Inc., a Delaware corporation, Prince Energy LLC, a Delaware limited liability company, Prince Minerals LLC, a Delaware limited liability company and Prince Specialty Products LLC, a Maryland limited liability company (each, a "Grantor") in favor of Credit Suisse AG, Cayman Islands Branch ("CS"), as administrative agent and collateral agent (in such capacities, the "Administrative Agent") for the Secured Parties.

Reference is made to that certain Pledge and Security Agreement, dated as of the date hereof (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement"), among the Loan Parties party thereto and the Administrative Agent. The Lenders (as defined in the Credit Agreement) have extended credit to the Borrower (as defined in Credit Agreement (as defined below)) subject to the terms and conditions set forth in that certain Credit Agreement, dated as of the date hereof (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among ASP Prince Intermediate Holdings, Inc., a Delaware corporation ("Initial Holdings"), PMHC II, Inc., a Delaware corporation (the "Borrower"), the Lenders from time to time party thereto, the Issuing Banks from time to time party thereto and Credit Suisse AG, Cayman Islands Branch in its capacities as administrative agent for the Lenders and collateral agent for the Secured Parties (in such capacities and together with its permitted successors and assigns, the "Administrative Agent") and as an Issuing Bank. Consistent with the requirements set forth in Sections 4.01 and 5.12 of the Credit Agreement and Section 4.03(c) of the Security Agreement, the parties hereto agree as follows:

**SECTION 1.** *Terms.* Capitalized terms used in this Agreement and not otherwise defined herein have the meanings specified in the Security Agreement or the Credit Agreement, as applicable, as in effect on the date hereof.

**SECTION 2.** *Grant of Security Interest.* As security for the prompt and complete payment or performance, as the case may be, in full of the Secured Obligations, each Grantor, pursuant to the Security Agreement, did and hereby does pledge, mortgage, and grant to the Administrative Agent, its successors and permitted assigns, on behalf of and for the ratable benefit of the Secured Parties, a continuing security interest in all of its right, title and interest in and to all of the following assets, whether now owned or at any time hereafter acquired by or arising in favor of such Grantor and regardless of where located (collectively, the "IP Collateral"):

A. all Trademarks, including the Trademark registrations and registration applications in the United States Patent and Trademark Office listed on Schedule I hereto;

B. all Patents, including the issued Patents and pending applications in the United States Patent and Trademark Office listed on Schedule II hereto;

C. all Copyrights, including the Copyright registrations and pending applications for registration in the United States Copyright Office listed on Schedule III; and

D. all proceeds of the foregoing;

in each case to the extent the foregoing items constitute Collateral.

SECTION 3. *Security Agreement.* The security interests granted to the Administrative Agent herein are granted in furtherance, and not in limitation of, the security interests granted to the Administrative Agent pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of the Administrative Agent with respect to the IP Collateral are more fully set forth in the Security Agreement. In the event of any conflict between the terms of this Agreement and the Security Agreement, the terms of the Security Agreement shall govern.

SECTION 4. *Termination or Release.* In connection with any termination or release pursuant to Section 7.12 of the Security Agreement, the Administrative Agent shall promptly execute and deliver to any Grantor, at such Grantor's expense, such documents that such Grantor shall reasonably request in writing to evidence and/or effectuate the termination or release of the security interest granted herein.

SECTION 5. *Governing Law.* This Agreement, and any claim, controversy or dispute arising under or related to this Agreement, whether in tort, contract (at law or in equity) or otherwise, shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York.


SECTION 6. *Counterparts.* This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or by email as a ".pdf" or ".tif" attachment shall be effective as delivery of a manually executed counterpart of this Agreement. It is understood and agreed that, subject to any Requirement of Law, the words "execution", "signed", "signature", "delivery" and words of like import in or relating to this Agreement shall be deemed to include any Electronic Signature, delivery or the keeping of any record in electronic form, each of which shall have the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system to the extent and as provided for in any applicable Requirements of Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any similar state laws based on the Uniform Electronic Transactions Act.

[Signature Pages Follow]

IN WITNESS WHEREOF, the Grantors have duly executed this Agreement as of the day and year first above written.

**CHROMAFLO TECHNOLOGIES  
CORPORATION**

By: \_\_\_\_\_



Name: Scott Becker  
Title: Chief Executive Officer

[Signature Page to Intellectual Property Security Agreement]



FERRO CORPORATION  
FERRO ELECTRONIC MATERIALS INC.  
PRINCE ENERGY LLC  
PRINCE MINERALS LLC  
PRINCE SPECIALTY PRODUCTS LLC



By:   
Name: Glenn Fish  
Title: Chief Financial Officer


SCHEDULE I

TRADEMARK REGISTRATIONS AND APPLICATIONS




	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
1.	UVSOLUTIONS	USA	85917068 29-APR-2013	4558518 01-JUL-2014	Registered	Chromafllo Technologies Corporation
2.	COLORTREND	USA	85765652 29-OCT-2012	4364025 09-JUL-2013	Registered	Chromafllo Technologies Corporation
3.	CHROMA-CHEM	USA	85765665 29-OCT-2012	4367504 16-JUL-2013	Registered	Chromafllo Technologies Corporation
4.	CHROMAFLO TECHNOLOGIES and design 	USA	85669496 05-JUL-2012	4377606 30-JUL-2013	Registered	Chromafllo Technologies Corporation
5.	CHROMAFLO TECHNOLOGIES	USA	85669542 05-JUL-2012	4377607 30-JUL-2013	Registered	Chromafllo Technologies Corporation
6.	TINT-AYD	USA	85596889 13-APR-2012	4255321 04-DEC-2012	Registered	Chromafllo Technologies Corporation
7.	808	USA	85542972 15-FEB-2012	4198518 28-AUG-2012	Registered	Chromafllo Technologies Corporation
8.	844	USA	85541122 13-FEB-2012	4198514 28-AUG-2012	Registered	Chromafllo Technologies Corporation
9.	846	USA	85533367 03-FEB-2012	4198492 28-AUG-2012	Registered	Chromafllo Technologies Corporation
10.	897	USA	85533415 03-FEB-2012	4198493 28-AUG-2012	Registered	Chromafllo Technologies Corporation
11.	PORTFOLIO OF COLOR	USA	85508154 04-JAN-2012	4152029 29-MAY-2012	Registered	Chromafllo Technologies Corporation

	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
12.	COLORTREND and design 	USA	85300075 20-APR-2011	4280319 22-JAN-2013	Registered	Chromaflō Technologies Corporation
13.	CHROMA-CHEM and design 	USA	85300265 20-APR-2011	4262007 18-DEC-2012	Registered	Chromaflō Technologies Corporation
14.	VIVID EXPRESSIONS	USA	85294816 14-APR-2011	4136848 01-MAY-2012	Registered	Chromaflō Technologies Corporation
15.	INFRACOOOL	USA	77047472 20-NOV-2006	3485557 12-AUG-2008	Registered	Chromaflō Technologies Corporation
16.	CHROMACURE	USA	77047473 20-NOV-2006	3389495 26-FEB-2008	Registered	Chromaflō Technologies Corporation
17.	SYNERMIX	USA	77024530 19-OCT-2006	3376958 05-FEB-2008	Registered	Chromaflō Technologies Corporation
18.	SPARTACRYL PM	USA	78536994 22-DEC-2004	3038036 03-JAN-2006	Registered	Chromaflō Technologies Corporation
19.	ACCUMAG	USA	76281485 05-JUL-2001	2751030 12-AUG-2003	Registered	Chromaflō Technologies Corporation
20.	UCD	USA	76180836 14-DEC-2000	2509852 20-NOV-2001	Registered	Chromaflō Technologies Corporation
21.	PLASTICOLORS and design 	USA	73652045 30-MAR-1987	1492773 21-JUN-1988	Registered	Chromaflō Technologies Corporation
22.	PLASTICOLORS	USA	73652046 30-MAR-1987	1488021 17-MAY-1988	Registered	Chromaflō Technologies Corporation
23.	CHROMAFLO	USA	73632667 28-NOV-1986	1451611 11-AUG-1987	Registered	Chromaflō Technologies Corporation

MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
24. PLASTISPERSE	USA	73632668 28-NOV-1986	1453760 25-AUG-1987	Registered	Chromaflo Technologies Corporation
25. COLORMATCH	USA	73632669 28-NOV-1986	1451612 11-AUG-1987	Registered	Chromaflo Technologies Corporation
26. SOL-U-PAK	USA	73632670 28-NOV-1986	1447021 14-JUL-1987	Registered	Chromaflo Technologies Corporation
27. PLASTIGEL	USA	73632679 28-NOV-1986	1449133 28-JUL-1987	Registered	Chromaflo Technologies Corporation
28. CAL-TINT	USA	72254408 13-SEP-1966	0845692 12-MAR-1968	Registered	Chromaflo Technologies Corporation
29. THERMARK	USA	87232454 10-NOV-2016	5362695 26-DEC-2017	Registered	Ferro Corporation
30. FERRO WHERE INNOVATION DELIVERS PERFORMANCE and design 	USA	86620893 06-MAY-2015	5196139 02-MAY- 2017	Registered	Ferro Corporation
31. FERRO WHERE INNOVATION DELIVERS PERFORMANCE and design 	USA	86621131 06-MAY-2015	5492508 12-JUN-2018	Registered	Ferro Corporation
32. WHERE INNOVATION DELIVERS PERFORMANCE	USA	86619915 05-MAY-2015	5219023 06-JUN-2017	Registered	Ferro Corporation
33. SQUARELEASE	USA	85521355 20-JAN-2012	4325446 23-APR-2013	Registered	Ferro Corporation
34. TRUPLANE	USA	77205214 13-JUN-2007	3655260 14-JUL-2009	Registered	Ferro Corporation



	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
35.	EVOLUTION	USA	77031862 30-OCT-2006	3664035 04-AUG-2009	Registered	Ferro Corporation
36.	LENSMAX	USA	78719112 23-SEP-2005	3207819 13-FEB-2007	Registered	Ferro Corporation
37.	ACE	USA	78264616 19-JUN-2003	2988075 23-AUG-2005	Registered	Ferro Corporation
38.	COOL COLORS	USA	76220988 07-MAR-2001	2711906 29-APR-2003	Registered	Ferro Corporation
39.	CERMARK and design 	USA	76185458 21-DEC-2000	2581488 18-JUN-2002	Registered	Ferro Corporation
40.	CERMARK	USA	76185459 21-DEC-2000	2597392 23-JUL-2002	Registered	Ferro Corporation
41.	ESL	USA	76155032 27-OCT-2000	2655640 03-DEC-2002	Registered	Ferro Corporation
42.	ECLIPSE	USA	76096129 25-JUL-2000	2845284 25-MAY-2004	Registered	Ferro Corporation
43.	CERMARK and design 	USA	75405646 15-DEC-1997	2444691 17-APR-2001	Registered	Ferro Corporation
44.	CERMARK	USA	75393958 21-NOV-1997	2438817 27-MAR-2001	Registered	Ferro Corporation
45.	GEODE	USA	74348352 14-JAN-1993	1836504 17-MAY-1994	Registered	Ferro Corporation
46.	PDI	USA	74315490 21-SEP-1992	1779957 06-JUL-1993	Registered	Ferro Corporation



	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
47.	ALOX	USA	73562656 10-OCT-1985	1393723 20-MAY-1986	Registered	Ferro Corporation
48.	FERROFLEX	USA	73365359 19-MAY-1982	1280330 05-JUN-1984	Registered	Ferro Corporation
49.	AMERICAL and design 	USA	73309699 11-MAY-1981	1221372 28-DEC-1982	Registered	Ferro Corporation
50.	PERC	USA	73146902 02-NOV-1977	1105842 14-NOV-1978	Registered	Ferro Corporation
51.	CONDUCTROX	USA	73030870 30-AUG-1974	1004166 11-FEB-1975	Registered	Ferro Corporation
52.	MIRAMAX	USA	72371841 24-SEP-1970	0923047 02-NOV-1971	Registered	Ferro Corporation
53.	CE-RITE	USA	72252139 10-AUG-1966	0839806 05-DEC-1967	Registered	Ferro Corporation
54.	TIZOX	USA	72195174 08-JUN-1964	0812789 16-AUG-1966	Registered	Ferro Corporation
55.	VIBROXIDE	USA	72188680 13-MAR-1964	0781180 08-DEC-1964	Registered	Ferro Corporation
56.	ZOX	USA	72091881 29-FEB-1960	0708245 13-DEC-1960	Registered	Ferro Corporation
57.	CHECK and design 	USA	72063815 08-DEC-1958	0710108 24-JAN-1961	Registered	Ferro Corporation
58.	FERRO	USA	72063300 28-NOV-1958	0684616 08-SEP-1959	Registered	Ferro Corporation

	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
59.	FERRO	USA	71585519 29-SEP-1949	0545912 31-JUL-1951	Registered	Ferro Corporation
60.	FERRO	USA	71585520 29-SEP-1949	0549848 23-OCT-1951	Registered	Ferro Corporation
61.	CHECK and design 	USA	71473776 31-AUG-1944	0419066 05-FEB-1946	Registered	Ferro Corporation
62.	TICON	USA	71511116 18-OCT-1946	0433994 04-NOV-1947	Registered	Ferro Electronic Materials, Inc.
63.	PRIMO	USA	86306489 11-JUN-2014	4989160 28-JUN-2016	Registered	Prince Energy LLC
64.	PRONTO PLUG	USA	85753585 13-OCT-2012	4353509 18-JUN-2013	Registered	Prince Energy LLC
65.	FIBERFLUID	USA	85753588 13-OCT-2012	4353510 18-JUN-2013	Registered	Prince Energy LLC
66.	SCALESHIELD	USA	88413238 02-MAY-2019	5903066 05-NOV-2019	Registered	Prince Minerals LLC
67.	GRANUSOL	USA	88144766 05-OCT-2018	5756812 21-MAY-2019	Registered	Prince Minerals LLC
68.	CERAMCAST	USA	88002946 15-JUN-2018	5679044 19-FEB-2019	Registered	Prince Minerals LLC
69.	PRINCE and design 	USA	86245241 08-APR-2014	4834480 20-OCT-2015	Registered	Prince Minerals LLC
70.	PRINCE SOURCE TO SOLUTION and design 	USA	86245259 08-APR-2014	4834481 20-OCT-2015	Registered	Prince Minerals LLC

	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
71.	PRINCE and design 	USA	86245266 08-APR-2014	4834482 20-OCT-2015	Registered	Prince Minerals LLC
72.	RED CROWN DRY APPLIED COLORANTS	USA	86206307 27-FEB-2014	4698408 10-MAR-2015	Registered	Prince Minerals LLC
73.	RED CROWN DRY APPLIED SAND COLORANTS	USA	86206328 27-FEB-2014	4694569 03-MAR-2015	Registered	Prince Minerals LLC
74.	RED CROWN ENGINEERED ENGOBES	USA	86206342 27-FEB-2014	4706736 24-MAR-2015	Registered	Prince Minerals LLC
75.	RED CROWN GLAZES	USA	86206355 27-FEB-2014	4691011 24-FEB-2015	Registered	Prince Minerals LLC
76.	RED CROWN IRON OXIDES	USA	86206437 27-FEB-2014	4694571 03-MAR-2015	Registered	Prince Minerals LLC
77.	RED CROWN TRANSLUCENT ENGOBES	USA	86206858 27-FEB-2014	4694574 03-MAR-2015	Registered	Prince Minerals LLC
78.	RED CROWN VARI-TONE ENGOBES	USA	86206860 27-FEB-2014	4694575 03-MAR-2015	Registered	Prince Minerals LLC
79.	DENSFIL IND	USA	86177007 28-JAN-2014	4698302 10-MAR-2015	Registered	Prince Minerals LLC
80.	DENSFIL	USA	86177032 28-JAN-2014	4698303 10-MAR-2015	Registered	Prince Minerals LLC
81.	GRANU-SPECK	USA	86177138 28-JAN-2014	4792845 18-AUG-2015	Registered	Prince Minerals LLC
82.	E CAST	USA	86168788 17-JAN-2014	4806423 08-SEP-2015	Registered	Prince Minerals LLC
83.	E SHIELD	USA	86168834 17-JAN-2014	4801936 01-SEP-2015	Registered	Prince Minerals LLC



	MARK	Country	Serial No./ Filing Date	Reg. No./ Reg. Date	Status	Current Owner of Record
84.	MASTERTOP	USA	86168855 17-JAN-2014	4698259 10-MAR-2015	Registered	Prince Minerals LLC
85.	SLAG-GETTER	USA	86168871 17-JAN-2014	4698260 10-MAR-2015	Registered	Prince Minerals LLC
86.	PRINCE MINERALS and design 	USA	86014296 18-JUL-2013	4726072 28-APR-2015	Registered	Prince Minerals LLC
87.	SURE START	USA	85107401 13-AUG-2010	3950461 26-APR-2011	Registered	Prince Minerals LLC
88.	BRICKMAX	USA	85107434 13-AUG-2010	3950463 26-APR-2011	Registered	Prince Minerals LLC
89.	LIGNIN LS-50	USA	77959252 15-MAR-2010	3953410 03-MAY- 2011	Registered	Prince Minerals LLC
90.	BLACKCAST	USA	77577948 24-SEP-2008	3608837 21-APR-2009	Registered	Prince Minerals LLC
91.	REDCAST	USA	77578007 24-SEP-2008	3608838 21-APR-2009	Registered	Prince Minerals LLC
92.	PYRITEMAX	USA	77578049 24-SEP-2008	3608839 21-APR-2009	Registered	Prince Minerals LLC
93.	CHROMECAST	USA	77563740 05-SEP-2008	3605715 14-APR-2009	Registered	Prince Minerals LLC
94.	ZIR-CAST	USA	77563748 05-SEP-2008	3605716 14-APR-2009	Registered	Prince Minerals LLC
95.	PRINCE and design 	USA	77063430 13-DEC-2006	3411348 15-APR-2008	Registered	Prince Minerals LLC
96.	GLASSOX	USA	78806132 03-FEB-2006	3321115 23-OCT-2007	Registered	Prince Minerals LLC

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97.	PYROLOX	USA	78772902 14-DEC-2005	3168380 07-NOV-2006	Registered	Prince Minerals LLC
98.	IGC TECHNOLOGIES and design 	USA	76398819 22-APR-2002	2702268 01-APR-2003	Registered	Prince Minerals LLC
99.	METALLPUR	USA	75904929 28-JAN-2000	2541388 19-FEB-2002	Registered	Prince Minerals LLC
100.	BRICKOX	USA	75530249 04-AUG-1998	2279313 21-SEP-1999	Registered	Prince Minerals LLC
101.	CHROMOX	USA	75530822 04-AUG-1998	2334660 28-MAR-2000	Registered	Prince Minerals LLC
102.	MAGNAFLOAT	USA	75530449 04-AUG-1998	2310942 25-JAN-2000	Registered	Prince Minerals LLC
103.	PRINCE and design 	USA	74516225 25-APR-1994	1902265 04-JUL-1995	Registered	Prince Minerals LLC
104.	VEINSEAL	USA	74470769 20-DEC-1993	1880296 28-FEB-1995	Registered	Prince Minerals LLC
105.	ERACHEM	USA	86768745 25-SEP-2015	5030230 30-AUG-2016	Registered	Prince Specialty Products LLC
106.	TECMANGAM	USA	85894491 03-APR-2013	4432413 12-NOV-2013	Registered	Prince Specialty Products LLC
107.	GIGACLEAN	USA	77617985 19-NOV-2008	3764729 23-MAR-2010	Registered	Ferro Corporation
108.	SUPERNOVA	USA	77617989 19-NOV-2008	3764730 23-MAR-2010	Registered	Ferro Corporation

PATENTS AND PATENT APPLICATIONS

SCHEDULE II

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
1.	Electrically conductive additive system and method of making same: Electrically conductive additive package comprising carbon nanofibers having a diameter of 70-200 nanometers, a length of 50-100 microns and graphitic planes having a stacked cone-type structure, and conductive carbon black; for use in electrostatic painting of automotive parts	USA	10870105	17-Jun-2004	7132062	7-Nov-2006	Granted	Chromaflo Technologies Corporation
2.	Slurry composition and method of use: Polyacrylic acid, high purity cerium oxide and optionally rare earth oxides aqueous dispersion containing polysaccharide to retard hard setting; polishing glass and ceramics	USA	10444104	22-May-2003	7300478	27-Nov-2007	Granted	Ferro Corporation
3.	Hermetically sealed electronic device using solder bonding	USA	14931957	4-Nov-2015	9545682	17-Jan-2017	Granted	Ferro Corporation
4.	Laser absorbing compounds	USA	15075250	21-Mar-2016	9776210	3-Oct-2017	Granted	Ferro Corporation
5.	Particles from supercritical fluid extraction of emulsion: Forming microparticles; dissolving in a solvent; dispersion; solvent extraction from solvent	USA	10423492	25-Apr-2003	6998051	14-Feb-2006	Granted	Ferro Corporation
6.	Carbide, nitride and silicide enhancers for laser absorption	USA	16163665	18-Oct-2018	10854554	1-Dec-2020	Granted	Ferro Corporation

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REEL: 007708 FRAME: 0785

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
7.	Slurry composition and method for polishing organic polymer-based ophthalmic substrates: Polishing with an aqueous dispersion of: abrasive particles of alumina, zirconia, silica or titania; and a pyrrolidone compound and/or polyvinyl caprolactam; disposing the slurry between a polishing pad and the substrate	USA	11102555	8-Apr-2005	7294044	13-Nov-2007	Granted	Ferro Corporation
8.	Light influencing nano layer	USA	14405193	1-Aug-2013	9671529	6-Jun-2017	Granted	Ferro Corporation
9.	Slurry composition and method for polishing organic polymer-based ophthalmic substrates	USA	11689543	22-Mar-2007	7467988	23-Dec-2008	Granted	Ferro Corporation
10.	Laser absorbing compounds	USA	14363885	1-Mar-2013	9321130	26-Apr-2016	Granted	Ferro Corporation
11.	Carbide, nitride and silicide enhancers for laser absorption	USA	15877427	23-Jan-2018	10723160	28-Jul-2020	Granted	Ferro Corporation
12.	Manufacturing orthopedic parts using supercritical fluid processing techniques: Slurrying; bone grafts that can be used as spinal implants	USA	09/658250	8-Sep-2000	6506213	14-Jan-2003	Granted	Ferro Corporation
13.	Copper red frits and pigments comprising silica and at least one of cupric oxide and cuprous oxide	USA	13377183	16-Jun-2010	8946102	3-Feb-2015	Granted	Ferro Corporation
14.	Orthopedic mixtures prepared by supercritical fluid processing techniques: Mixing calcium compound, thermoplastic or thermosetting resin and supercritical fluid; curing	USA	09/658252	8-Sep-2000	6579532	17-Jun-2003	Granted	Ferro Corporation
15.	Polymer matrices prepared by supercritical fluid processing techniques: Heating; pressurization, thermoplastic polymers, thermosetting resins, depressurization; orthopedic, pharmaceutical, and similar mixtures	USA	09/658251	8-Sep-2000	6521258	18-Feb-2003	Granted	Ferro Corporation

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	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
16.	Hermetically sealed electronic device using coated glass flakes	USA	13808422	22-Jul-2011	9272497	1-Mar-2016	Granted	Ferro Corporation
17.	Low volatile organic component medium	USA	14118557	31-May-2012	8889778	18-Nov-2014	Granted	Ferro Corporation
18.	Copper red frits and pigments comprising silica and at least one of cupric oxide and cuprous oxide	USA	14535516	7-Nov-2014	9334189	10-May-2016	Granted	Ferro Corporation
19.	Slurry composition and method of selective silica polishing	USA	16305114	2-Aug-2017	11193044	7-Dec-2021	Granted	Ferro Corporation
20.	Dark colored easy-to-clean enamel	USA	13661174	26-Oct-2012	9072400	7-Jul-2015	Granted	Ferro Corporation
21.	Composite particles and method for preparing: Supercritical fluid extraction on oil-in-water or water-in-oil emulsions	USA	10441137	19-May-2003	6966990	22-Nov-2005	Granted	Ferro Corporation
22.	High-K LTCC dielectric compositions and devices	USA	15576321	2-Aug-2016	10494306	3-Dec-2019	Granted	Ferro Corporation
23.	Glass enamel for automotive applications	USA	14370102	20-Feb-2013	9315413	19-Apr-2016	Granted	Ferro Corporation
24.	Induction sealing of inorganic substrates	USA	14240399	12-Sep-2012	9969648	15-May-2018	Granted	Ferro Corporation
25.	Auto-stopping slurries for chemical-mechanical polishing of topographic dielectric silicon dioxide	USA	11678248	23-Feb-2007	7696095	13-Apr-2010	Granted	Ferro Corporation
26.	Inorganic pigments: Making CoAl2O4 cobalt aluminate by calcining a raw mixtures containing cobalt oxide and alumina, in presence of aluminum phosphate as a mineralizer, chromium (III) oxide for adjusting the color; UV absorption, low pH, spinel crystalline structure, blue color pigment; chromate coatings	USA	10649317	27-Aug-2003	7014701	21-Mar-2006	Granted	Ferro Corporation

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	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
27.	Slurry composition and method of use	USA	15320910	18-Jul-2016	10544332	28-Jan-2020	Granted	Ferro Corporation
28.	Method of making multilayer glass structure	USA	14647557	12-Dec-2013	10266444	23-Apr-2019	Granted	Ferro Corporation
29.	Mid-K LTCC compositions and devices	USA	15301737	12-Jun-2015	9892853	13-Feb-2018	Granted	Ferro Corporation
30.	High selectivity CMP slurry: For use in removing a first substance from a surface of an article in preference to silicon nitride; includes an abrasive, an aqueous medium, and an organic polyol that does not dissociate protons	USA	10161315	3-Jun-2002	6616514	9-Sep-2003	Granted	Ferro Corporation
31.	Low-K and mid-K LTCC dielectric compositions and devices	USA	15550101	17-Feb-2016	10287211	14-May-2019	Granted	Ferro Corporation
32.	Copper containing infrared reflective pigment compositions	USA	14110926	9-May-2012	9238735	19-Jan-2016	Granted	Ferro Corporation
33.	Modified black spinel pigments for glass and ceramic enamel applications	USA	16071629	23-Jan-2017	11174170	16-Nov-2021	Granted	Ferro Corporation
34.	Curable acrylate based printing medium	USA	12858623	18-Aug-2010	8816012	26-Aug-2014	Granted	Ferro Corporation
35.	Method of decorating laminated glass	USA	12567876	28-Sep-2009	7955470	7-Jun-2011	Granted	Ferro Corporation
36.	Enamel and ground coat compositions	USA	12768213	27-Apr-2010	8778455	15-Jul-2014	Granted	Ferro Corporation
37.	Passivation glasses for semiconductor devices	USA	16075796	3-May-2017	10370290	6-Aug-2019	Granted	Ferro Corporation
38.	Method of micro and nano texturing glass	USA	10452845	2-Jun-2003	6997018	14-Feb-2006	Granted	Ferro Corporation
39.	Production of porous materials by supercritical fluid processing	USA	10552008	21-Jun-2005	7901606	8-Mar-2011	Granted	Ferro Corporation

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
40.	Electronic device having lead and cadmium free electronic overlaze applied thereto: Low temperature fusion of glass: electronics	USA	10431346	7-May-2003	7740899	22-Jun-2010	Granted	Ferro Corporation
41.	Lyophilization method and apparatus for producing particles: includes a solution source that supplies a solution, and a fluid source that supplies a fluid	USA	10434435	8-May-2003	6931888	23-Aug-2005	Granted	Ferro Corporation
42.	Laser marking compositions and related methods	USA	14391423	25-Jul-2013	9487435	8-Nov-2016	Granted	Ferro Corporation
43.	Method and apparatus for continuous particle production using supercritical fluid: first phase dissolves from emulsion into supercritical fluid and the solute precipitates to form a suspension in a nonsupercritical fluid-soluble second phase; constant mass and pressure maintained in extraction chamber	USA	10434426	8-May-2003	7083748	1-Aug-2006	Granted	Ferro Corporation
44.	Copper oxide infrared pigment	USA	15300821	19-Mar-2015	9683107	20-Jun-2017	Granted	Ferro Corporation
45.	Pyrolytic hybrid enamel	USA	15580321	26-Aug-2016	10427973	1-Oct-2019	Granted	Ferro Corporation
46.	Hot-melt sealing glass compositions and devices using the same	USA	13608022	10-Sep-2012	8786034	22-Jul-2014	Granted	Ferro Corporation
47.	Easy rinsing polishing composition for polymer-based surfaces	USA	12853097	9-Aug-2010	8449636	28-May-2013	Granted	Ferro Corporation
48.	Methods of forming and detecting non-visible marks and articles marked in accordance with the methods	USA	10597781	17-Jun-2005	8006909	30-Aug-2011	Granted	Ferro Corporation

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	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
49.	Lyophilization method and apparatus for producing particles: The solution (solute dissolved in a solvent) droplets are frozen by the temperature reduction that occurs simultaneously with the droplet atomization, and the droplets are freeze-dried under vacuum to sublime the frozen solvent. The frozen solvent is thus removed from the solute particles	USA	11078554	11-Mar-2005	7073349	11-Jul-2006	Granted	Ferro Corporation
50.	Conductive paste with improved performance in glass strength	USA	15126674	6-Feb-2015	10174211	8-Jan-2019	Granted	Ferro Corporation
51.	High-K LTCC dielectric compositions and devices	USA	15310155	29-Jun-2016	10065894	4-Sep-2018	Granted	Ferro Corporation
52.	Grain boundary healing glasses and their use in transparent enamels, transparent colored enamels and opaque enamels	USA	15544061	4-Jan-2016	10577279	3-Mar-2020	Granted	Ferro Corporation
53.	COG dielectric composition for use with nickel electrodes	USA	15317545	27-Jun-2016	9852848	26-Dec-2017	Granted	Ferro Corporation
54.	Curable acrylate based printing medium	USA	14333559	17-Jul-2014	9150750	6-Oct-2015	Granted	Ferro Corporation
55.	Hot-melt sealing glass compositions and methods of making and using the same	USA	12532424	15-Jul-2009	8307674	13-Nov-2012	Granted	Ferro Corporation
56.	Method of forming durable glass enamel	USA	14905838	17-Jun-2014	10047004	14-Aug-2018	Granted	Ferro Corporation
57.	Heavy-metal-free, ion exchangeable glass enamels	USA	14375475	24-Apr-2013	9487439	8-Nov-2016	Granted	Ferro Corporation
58.	Methods for the purification of polymers: Use of a supercritical fluid such as supercritical carbon dioxide to extract impurities such as residual monomers; purifying biodegradable polymers such as polylactic acid for use in pharmaceutical industry	USA	12017399	22-Jan-2008	7745566	29-Jun-2010	Granted	Ferro Corporation

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	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
59.	Heavy-metal-free, ion exchangeable glass enamels	USA	15286610	6-Oct-2016	9758427	12-Sep-2017	Granted	Ferro Corporation
60.	Method of making multilayer structures using tapes on non-densifying substrates: Applying a ceramic coating to a substrate by laminating layers of a green ceramic tape to a rigid substrate using a tackifying resin to adhere the tape to the substrate; firing the tackifying resin ensures near zero shrinkage of the tape in the XY plane without usage of elevated pressure/temperature	USA	11468798	31-Aug-2006	7547369	16-Jun-2009	Granted	Ferro Corporation
61.	Low-melting lead-free bismuth sealing glasses	USA	13641046	15-Apr-2011	9540274	10-Jan-2017	Granted	Ferro Corporation
62.	Formation of glass-based seals using focused infrared radiation	USA	13947301	22-Jul-2013	9499428	22-Nov-2016	Granted	Ferro Corporation
63.	COG dielectric composition for use with nickel electrodes	USA	15024166	8-Sep-2014	9704650	11-Jul-2017	Granted	Ferro Corporation
64.	Chemical-mechanical polishing compositions and methods of making and using the same	USA	12673834	25-Aug-2009	8409990	2-Apr-2013	Granted	Ferro Corporation
65.	Materials for improved adhesion relating to functional cold end coatings (CECs) and methods of detecting same	USA	13579057	21-Jan-2011	9656911	23-May-2017	Granted	Ferro Corporation
66.	Hermetic sealing of glass plates	USA	13642553	27-Apr-2011	9156735	13-Oct-2015	Granted	Ferro Corporation
67.	Enamel and ground coat compositions	USA	14307736	18-Jun-2014	8962162	24-Feb-2015	Granted	Ferro Corporation
68.	X8R dielectric composition for use with nickel electrodes: Powder blend of oxides of zirconium, molybdenum, magnesium, yttrium, and silicon, barium titanate, barium carbonate, and manganese carbonate; multilayer ceramic chip capacitor	USA	11623905	17-Jan-2007	7541306	2-Jun-2009	Granted	Ferro Corporation

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REEL: 007708 FRAME: 0791

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
69.	Synthesis of nickel nanopowders: contacting reduction solution with nickel solution to form reaction mixture; reduction solution comprises a base and a reducing agent; nickel solution comprises a nickel compound, water, a nucleation agent, a surfactant or dispersant, and combinations thereof; powder for use in electronics; sintering	USA	11462729	7-Aug-2006	7819939	26-Oct-2010	Granted	Ferro Corporation
70.	Methods for manufacturing azoic pigments	USA	16062133	13-Dec-2016	10508201	17-Dec-2019	Granted	Ferro Corporation
71.	Durable glass enamel composition: Crystallization; lead-free	USA	10408737	7-Apr-2003	6936556	30-Aug-2005	Granted	Ferro Corporation
72.	Copper termination inks containing lead free and cadmium free glasses for capacitors: formed by stacking dielectrics/electrodes; then firing; electronics; semiconductors	USA	10864309	9-Jun-2004	6982864	3-Jan-2006	Granted	Ferro Corporation
73.	Ultra low-emissivity (ultra low E) silver coating	USA	12908927	21-Oct-2010	8691332	8-Apr-2014	Granted	Ferro Corporation
74.	Low melting glass compositions	USA	13865440	18-Apr-2013	9637409	2-May-2017	Granted	Ferro Corporation
75.	COG dielectric composition for use with nickel electrodes: Multilayer ceramic chip capacitors compatible with reducing atmosphere sintering conditions; lead/cadmium free paste; dielectrics; electrical resistance	USA	10599925	13-Sep-2006	7858548	28-Dec-2010	Granted	Ferro Corporation
76.	Copper termination inks containing lead free and cadmium free glasses for capacitors: Stacking dielectrics/electrodes, then firing; electronics; semiconductors	USA	11201278	10-Aug-2005	7339780	4-Mar-2008	Granted	Ferro Corporation
77.	Nickel-free green pigment	USA	14296401	4-Jun-2014	9187617	17-Nov-2015	Granted	Ferro Corporation

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REEL: 007708 FRAME: 0792

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
78.	Dielectric pastes for aluminum substrates	USA	14911035	6-Oct-2014	9776911	3-Oct-2017	Granted	Ferro Corporation
79.	Method of forming conductive trace	USA	14907590	22-Jul-2014	9565772	7-Feb-2017	Granted	Ferro Corporation
80.	Coated bismuth oxy halide-based pigment	USA	16061672	13-Dec-2016	11168217	9-Nov-2021	Granted	Ferro Corporation
81.	Fast conductivity polymer silver	USA	16067624	10-Mar-2017	11084950	10-Aug-2021	Granted	Ferro Corporation
82.	Nickel-free and chromium-free forehead colors for glass tanks	USA	15227136	3-Aug-2016	9688566	27-Jun-2017	Granted	Ferro Corporation
83.	COG dielectric composition for use with copper electrodes: Sintering to fire a particulate dielectric blend of Gd <sub>2</sub> O <sub>3</sub> , Nd <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> , BaO, CaO, 1.5 wt % SiO <sub>2</sub> , SiO <sub>2</sub> , Li <sub>2</sub> O, Sm <sub>2</sub> O <sub>3</sub> , ZnO, B <sub>2</sub> O <sub>3</sub> , and LiF; for making multilayer ceramic chip capacitors with very good resistance to dielectric breakdown	USA	11235656	26-Sep-2005	7161795	9-Jan-2007	Granted	Ferro Corporation
84.	Lead-free and cadmium-free conductive copper thick film pastes: Mae of barium oxide, silicon and boron oxides, and titanium oxide as first glass components, zinc oxide, silicon and boron oxides as second glass components; and copper; applying above paste to the substrate; firing to form a thick film of desirable properties, such as good rheology	USA	10864304	9-Jun-2004	7176152	13-Feb-2007	Granted	Ferro Corporation

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REEL: 007708 FRAME: 0793

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
85.	Method of making staged burnout enamels for second surface firing of multilayer glass structures: making decorated multilayer glass structure using single firing step that includes use of crystallizing glass enamel composition that contains ingredients to ensure complete burnout of organic portion of composition upon firing and bending of mated pair of glass sheets	USA	11131919	18-May-2005	7832233	16-Nov-2010	Granted	Ferro Corporation
86.	Forehearth concentrate and method for opalization of glass: Opalescent color concentrate of non-smelted agglomerated particles; a Zinc oxide Silicon dioxide glass, and pigments of refractory metal salt having fluoride ions or phosphorus containing ions; uniform dispersion of pigment with the glass becoming opalescent	USA	11211133	24-Aug-2005	7265069	4-Sep-2007	Granted	Ferro Corporation
87.	Porcelain enamel having metallic appearance: Low temperature fusible glass frit material comprised of oxides of silicon, titanium, and sodium, potassium and/or lithium with aluminum, nickel, copper and/or stainless steel particles; decorative, chemical and wear resistant coatings	USA	10274835	21-Oct-2002	6831027	14-Dec-2004	Granted	Ferro Corporation
88.	Hydrothermal synthesis of cerium-titanium oxide for use in CMP: Without the need for calcination and/or milling; adding a crystallization promoter to an aqueous cerium salt solution, basification, hydrothermal treatment; particles having a large crystallite size X-ray	USA	11283530	18-Nov-2005	7666239	23-Feb-2010	Granted	Ferro Corporation

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REEL: 007708 FRAME: 0794

Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Recd
89. Method of forming particles: Providing a solution comprising a solute dispersed or dissolved in a solvent; contacting the solution with a first compressed or liquefied gas at an initial temperature to form a mixture; expanding the mixture to form droplets; contacting the droplets with an extracting fluid, separating	USA	10536330	3-Nov-2005	7208106	24-Apr-2007	Granted	Ferro Corporation
90. Forehearth concentrate and method for opalization of glass: Opalescent color concentrate of non-smelted agglomerated particles; a Zinc oxide Silicon dioxide glass, and pigments of refractory metal salt having fluoride ions or phosphorus containing ions; uniform dispersion of pigment with the glass becoming opalescent	USA	11758273	5-Jun-2007	7737062	15-Jun-2010	Granted	Ferro Corporation
91. Method and apparatus for enhanced size reduction of particles using supercritical fluid liquefaction of materials: includes mixing a load of material with a flow of a supercritical fluid in a mixing chamber having a primary mixing device disposed therein to form a melt; transferring the melt to a second mixing chamber and mixing with the supercritical fluid	USA	10932559	2-Sep-2004	6986846	17-Jan-2006	Granted	Ferro Corporation
92. Lead-free and cadmium-free conductive copper thick film pastes: Made of zinc oxide, silicon and boron oxides, and titanium oxide as first glass components, bismuth oxide, silicon and boron oxides as second glass components; and copper; applying above paste to substrate, firing to form a thick film of desirable properties, such as good rheology	USA	11609998	13-Dec-2006	7504349	17-Mar-2009	Granted	Ferro Corporation

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REEL: 007708 FRAME: 0795

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Recd
93.	Ultra low temperature fixed X7R and BX dielectric ceramic composition and method of making: Multilayer ceramic chip capacitors which satisfy X7R and BX requirements and which are compatible with silver-palladium internal electrodes are made in accordance with the invention. The capacitors exhibit desirable dielectric properties (high capacitance, low dissipation factor, high insulation resistan	USA	11681796	5-Mar-2007	7521390	21-Apr-2009	Granted	Ferro Corporation
94.	COG dielectric composition for use with nickel electrodes	USA	12945932	15-Nov-2010	8114801	14-Feb-2012	Granted	Ferro Corporation
95.	Special effect pigments	USA	11995001	25-Jul-2007	8172935	8-May-2012	Granted	Ferro Corporation
96.	Glass frit compositions for enamels	USA	13100399	4-May-2011	8772189	8-Jul-2014	Granted	Ferro Corporation
97.	Pigment additive for improving solar reflectance	USA	13575630	18-Feb-2011	8580028	12-Nov-2013	Granted	Ferro Corporation
98.	Zinc containing glasses and enamels	USA	13174891	1-Jul-2011	8202812	19-Jun-2012	Granted	Ferro Corporation
99.	Method of making multilayer structures using tapes on non-densifying substrates	USA	12464980	13-May-2009	8043721	25-Oct-2011	Granted	Ferro Corporation
100.	Zinc containing glasses and enamels	USA	12368331	10-Feb-2009	8007930	30-Aug-2011	Granted	Ferro Corporation
101.	Lead and cadmium free, low temperature fired X7R dielectric ceramic composition and method of making	USA	12681113	27-Oct-2008	8305731	6-Nov-2012	Granted	Ferro Corporation
102.	X8R dielectric composition for use with nickel electrodes: multilayer ceramic chip capacitor; capacitance	USA	12434752	4-May-2009	7727922	1-Jun-2010	Granted	Ferro Corporation

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	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
103.	Extended firing range enamels to produce frost effects: Zinc borosilicate glass frit and crystalline materials: for bottles and windows	USA	10599370	7-Sep-2006	8092911	10-Jan-2012	Granted	Ferro Corporation
104.	X7R dielectric composition: Barium titanate based ceramic with lesser amounts of manganese, yttrium, holmium, magnesium, calcium, aluminum, boron and silicon oxides; multilayer chip capacitors having nickel metal or alloy internal electrodes	USA	10440051	16-May-2003	6828266	7-Dec-2004	Granted	Ferro Corporation
105.	Composition for colouring glass and uses thereof	USA	13772945	21-Feb-2013	8932967	13-Jan-2015	Granted	Ferro Corporation
106.	Layered Phosphor In Glass	USA	16891527	3-Jun-2020	-	-	Pending	Ferro Corporation
107.	Forehearth Frits, Pearls And/Or Concentrates For Fluorescence	USA	15578789	2-Aug-2016	11225432	18-Jan-2022	Granted	Ferro Corporation
108.	Nanoparticles from supercritical fluid antisolvent process using particle growth and agglomeration retardants: carbon dioxide as supercritical fluid, a growth retardant compound soluble in CO <sub>2</sub> , include sugar acetates and fluorocarbons and a block copolymer, blocks selected from polypropylene oxide, poly methacrylic acid, poly acrylic acid, poly vinyl acetate and polyethylene oxide	USA	10531160	12-Apr-2005	7767118	3-Aug-2010	Granted	Ferro Corporation
109.	Chromium bearing forehearth color concentrate: Non-smelted agglomerated interspersion of particles; glass frits of Si, Na, Cr oxides; binder of alkali metal silicates; quickly, completely, uniformly disperses and dissolves in molten base glass to give green color at commercial temperatures	USA	10602533	24-Jun-2003	6984597	10-Jan-2006	Granted	Ferro Corporation

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	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
110.	Polycarbonate Diol Coating Composition For Caustic And UV Resistance	USA	15860833	3-Jan-2018	-	-	Pending	Ferro Corporation
111.	Ultra low-emissivity (ultra low E) silver coating: coating is made from a blend of micron size silver powders and/or flakes together with carbon black, inorganic black pigment, glass frit, and powdered selenium or bismuth metal; absorbs infrared radiation beyond the decomposition of carbon black, thus allowing higher firing temp. and lower firing time	USA	11781982	24-Jul-2007	7833439	16-Nov-2010	Granted	Ferro Corporation
112.	Glass compositions and glass frit composites for use in optical applications	USA	15007364	27-Jan-2016	9871176	16-Jan-2018	Granted	Ferro Corporation
113.	High performance organic, inorganic or hybrid seals	USA	15904524	26-Feb-2018	10800138	13-Oct-2020	Granted	Ferro Corporation
114.	Low K dielectric compositions for high frequency applications	USA	16180096	5-Nov-2018	10562809	18-Feb-2020	Granted	Ferro Corporation
115.	High temperature ceramic dielectric composition and capacitors made from the composition	USA	12386736	22-Apr-2009	8076257	13-Dec-2011	Granted	Ferro Corporation
116.	Sintering Aid For Glasses For Machinable Phyllosilicate Based Structures	USA	15740102	2-Dec-2016	11225433	18-Jan-2022	Granted	Ferro Corporation
117.	Slurry composition and additives and method for polishing organic polymer-based ophthalmic substrates	USA	15567642	13-Jun-2016	10508220	17-Dec-2019	Granted	Ferro Corporation <sup>1</sup>
118.	Hermetically sealed electronic device using solder bonding	USA	13808571	22-Jul-2011	9205505	8-Dec-2015	Granted	Ferro Corporation

<sup>1</sup> Ferro Corporation to file inventor assignment from inventor Edward E. Abbott, or confirm that such assignment was already filed, with the United States Patent and Trademark Office post-closing.



	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
119.	Materials system for low cost, non wire-wound, miniature, multilayer magnetic circuit components	USA	10288940	6-Nov-2002	6914513	5-Jul-2005	Granted	Ferro Corporation <sup>2</sup>
120.	Method for manufacturing bismuth based pigment having an improved alkaline resistance by encapsulating said pigment with a chelating agent	USA	16333262	22-Sep-2017	11098199	24-Aug-2021	Granted	Ferro Corporation
121.	Electrically conductive additive system and method of making same: Thermoset resin containing carbon nanofibers having graphitic planes with a stacked cone-type structure and carbon black particles; used in a sheet molding compound that can be made into an article that can be electrostatically sprayed without the use of a primer	USA	11549303	13-Oct-2006	7527750	5-May-2009	Granted	Chromaflo Technologies Corporation
122.	HIGH Q LTCC DIELECTRIC COMPOSITIONS AND DEVICES	USA	17259281	2-Jul-2019	-	-	Pending	Ferro Corporation
123.	Additives for preparing rheology-modified aqueous fluids: For high speed shear-thinning and viscosification	USA	10419769	21-Apr-2003	6906010	14-Jun-2005	Granted	Prince Energy LLC
124.	Method of producing electrolytic manganese dioxide with high compact density and electrolytic manganese dioxide produced therefrom	USA	14690709	20-Apr-2015	10099940	16-Oct-2018	Granted	Prince Specialty Products LLC
125.	Electrolytic manganese dioxide improved for tool wear reduction	USA	13192936	28-Jul-2011	9048494	2-Jun-2015	Granted	Prince Specialty Products LLC
126.	Treated electrolytic manganese dioxide and method for its production	USA	13034101	24-Feb-2011	8790613	29-Jul-2014	Granted	Prince Specialty Products LLC

<sup>2</sup> Ferro Corporation to file inventor assignment from inventor Micheal A. Stein, or confirm that such assignment was already filed, with the United States Patent and Trademark Office post-closing.

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
127.	System for chemical mechanical polishing of Ge-based materials and devices	USA	16004763	11-Jun-2018	11193043	07-Dec-2021	Granted	Joint-Ownership between: Taiwan Semiconductor Manufacturing Company, L and(2) Ferro Corporation
128.	Slurry composition for chemical mechanical polishing of Ge-based materials and devices	USA	15381022	15-Dec-2016	9994736	12-Jun-2018	Granted	Joint-Ownership between: Taiwan Semiconductor Manufacturing Company, L and(2) Ferro Corporation
129.	Slurry composition for chemical mechanical polishing of Ge-based materials and devices	USA	14480046	08-Sep-2014	9530655	27-Dec-2016	Granted	Joint-Ownership between: Taiwan Semiconductor Manufacturing Company, L and(2) Ferro Corporation
130.	Chemical mechanical polishing method using slurry composition containing N-oxide compound	USA	14078797	13-Nov-2013	9416297	16-Aug-2016	Granted	Joint-Ownership between: (1) Taiwan Semiconductor Manufacturing Company, Ltd. and(2) Ferro Corporation
131.	Chemical mechanical polishing method using slurry composition containing N-oxide compound	USA	15215794	21-Jul-2016	9881803	30-Jan-2018	Granted	Joint-Ownership between: (1) Taiwan Semiconductor Manufacturing Company, Ltd. and(2) Ferro Corporation
132.	Chemical mechanical polishing slurry	USA	14723488	28-May-2015	9718991	01-Aug-2017	Granted	Ferro Corporation
133.	Polishing composition	USA	14597737	15-Jan-2015	9493678	15-Nov-2016	Granted	Ferro Corporation
134.	Cleaning composition and cleaning method using the same	USA	14054833	16-Oct-2013	9165760	20-Oct-2015	Granted	Ferro Corporation
135.	Polishing slurry composition	USA	13568130	07-Aug-2012	9039925	26-May-2015	Granted	Ferro Corporation
136.	Slurry composition and method of fabricating damascene structure using the same	USA	12546688	25-Aug-2009	8901001	02-Dec-2014	Granted	Ferro Corporation
137.	Silica having metal ions absorbed thereon and fabricating method thereof	USA	13615539	13-Sep-2012	8747693	10-Jun-2014	Granted	Ferro Corporation

**TRADEMARK**

**REEL: 007708 FRAME: 0800**

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Record
138.	Sarcosine compound used as corrosion inhibitor	USA	12018796	23-Jan-2008	8337716	25-Dec-2012	Granted	Ferro Corporation
139.	Composition useful to chemical mechanical planarization of metal	USA	11868577	08-Oct-2007	7931714	26-Apr-2011	Granted	Ferro Corporation
140.	Method of selectively removing tungsten over silicon oxide	USA	16297745	11-Mar-2019	10501660	10-Dec-2019	Granted	Ferro Corporation
141.	Polishing composition for planarizing metal layer	USA	12482983	11-Jun-2009	8641920	04-Feb-2014	Granted	Ferro Corporation
142.	Acidic post-CMP cleaning composition: chemical mechanical polishing (CMP); polyamino-polycarboxylic acid, hydroxycarboxylic acid, surfactant such as alkylsulfonic acid, alkylbenzenesulfonic acid, alkylsulfonic acid, sulfosuccinate, 2-aminoethanesulfonic acid, nonoxymol-4 sulfate and lauryl-sulfonate, ammonium hydroxide, and water	USA	12394390	27-Feb-2009	7763577	27-Jul-2010	Granted	Ferro Corporation
143.	Porcelain enamel compositions and coatings made therefrom	USA	15765411	29-Sep-2016	10988401	27-Apr-2021	Granted	Prince Minerals LLC
144.	Lightweight Reinforced Composite Formulation and Method of Making the Same	USA	17015621	09-Sep-2020	-	-	Pending	Chromaffo Technologies Corporation
145.	Conductive Thick Film Paste For Silicon Nitride And Other Substrates	USA	17272736	02-Mar-2021	-	-	Pending	Ferro Corporation
146.	M7 LTCC Silver System And Related Dielectric Compositions For High Frequency Applications	USA	17434232	26-Aug-2021	-	-	Pending	Ferro Corporation
147.	LTCC Dielectric Compositions And Devices Having High Q Factors	USA	17433410	24-Aug-2021	-	-	Pending	Ferro Corporation
148.	High Adhesion Resistive Composition	USA	17615193	30-Nov-2021	-	-	Pending	Ferro Corporation
149.	Dark-Colored, Low-Expansion Fillers	USA	17614620	29-Nov-2021	-	-	Pending	Ferro Corporation

TRADEMARK

REEL: 007708 FRAME: 0801

	Title	Country	Appl. No.	Filing Date	Patent No.	Issue Date	Status	Current Owner of Recd
150.	Colored Glass Frits And Related Methods For Laser	USA	17614736	29-Nov-2021	-	-	Pending	Ferro Corporation
151.	M7 LTCC Silver System And Related Dielectric Compositions For High Frequency Applications	USA	63145130	03-Feb-2021	-	-	Expired	Ferro Corporation

**TRADEMARK**

**REEL: 007708 FRAME: 0802**

SCHEDULE III

COPYRIGHT REGISTRATIONS AND APPLICATIONS

	Country	Title	Registration No.	Registration Date	Current Owner of Record
1.	USA	TFS Thick film metalization covers the photovoltaic world.	VA0000208219	Sept. 04, 1985	Thick Film Systems, division of Ferro Corporation

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