

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Grant of Security Interest
CONVEYING PARTY DATA	
Name	Execution Date
EMS Engineered Materials Solutions, LLC	08/31/2010
RECEIVING PARTY DATA	
Name:	US Bank National Association
Street Address:	800 Nicolet Mall
City:	Minneapolis
State/Country:	MINNESOTA
Postal Code:	55402
PROPERTY NUMBERS Total: 22	
Property Type	Number
Application Number:	11562765
Patent Number:	5209399
Patent Number:	5516383
Patent Number:	5447698
Patent Number:	5366139
Patent Number:	5980658
Patent Number:	5607522
Patent Number:	5553770
Application Number:	11877193
Application Number:	12327535
Patent Number:	6379468
Patent Number:	5222282
Patent Number:	6475675
Patent Number:	6096145
Patent Number:	7776454

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PATENT
REEL: 025562 FRAME: 0151

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Patent Number:	6722002
Patent Number:	6783870
Patent Number:	4890083
Patent Number:	4783000
Application Number:	12180931
Application Number:	61340319
Application Number:	61365584

CORRESPONDENCE DATA

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Address Line 2: Corporation Service Company

Address Line 4: Washington, DISTRICT OF COLUMBIA 20005

ATTORNEY DOCKET NUMBER:	61031.00004/JCC
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NAME OF SUBMITTER:	Jean Paterson
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Total Attachments: 8

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GRANT OF SECURITY INTEREST
IN UNITED STATES PATENTS

August 31, 2010

FOR GOOD AND VALUABLE CONSIDERATION, receipt and sufficiency of which are hereby acknowledged, EMS ENGINEERED MATERIALS SOLUTIONS, LLC, a Delaware corporation with an address at 39 Perry Avenue, Attleboro, MA 02703 (the "Grantor"), hereby grants to U.S. BANK NATIONAL ASSOCIATION, a national association with offices at 800 Nicollet Mall, Minneapolis, MN 55402-7020 (the "Grantee"), a continuing security interest in (i) all of the Grantor's right, title and interest in, to and under to the United States patents and patent applications (the "Patents") set forth on Schedule A attached hereto, (ii) all proceeds and products derived from the inventions claimed in the Patents, and (iii) all causes of action arising prior to or after the date hereof for infringement of any of the Patents.

THIS GRANT is made to secure the satisfactory performance and payment of all the Obligations of the Grantor, as such term is defined in the Financing Agreement by, among others, the Grantor and the Grantee, dated as of August 31, 2010 (as amended, modified, restated and/or supplemented from time to time, the "Loan Agreement").

This Grant has been granted in conjunction with the security interest granted to the Grantee under that certain Security Agreement dated as of August 31, 2010 (as amended, modified, restated and/or supplemented from time to time, the "Security Agreement"). The rights and remedies of the Grantee with respect to the security interest granted herein are as set forth in the Security Agreement, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Grant are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

IN WITNESS WHEREOF, the undersigned have executed this Grant as of the date first set forth above.

EMS ENGINEERED MATERIALS SOLUTIONS,
LLC, as Grantor

By:
Name:
Title:


CHRISTOPHER HIRT
CEO

U.S. BANK NATIONAL ASSOCIATION,
as Grantee

By:
Name:
Title:

Rod Swenson
Assistant Vice President

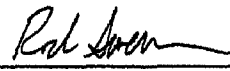
[Signature Page to Grant of Security Interest in U.S. Patents]

IN WITNESS WHEREOF, the undersigned have executed this Grant as of the date first set forth above.

EMS ENGINEERED MATERIALS SOLUTIONS,
LLC, as Grantor

By: _____
Name:
Title:

U.S. BANK NATIONAL ASSOCIATION,
as Grantee

By: 
Name: Rod Swenson
Title: Assistant Vice President

[Signature Page to Grant of Security Interest in U.S. Patents]

SCHEDULE A

Please see attached.

EMS ENGINEERED MATERIALS SOLUTIONS, LLC
ACTIVE PATENT MATTERS
August 31, 2010

Docket No.	Status	Title	Country	Application No.	Application Date	Patent No.	Grant Date
048502.005US	Filed	ASYMMETRIC COMMUNICATION CABLE SHIELDING	United States	11/562765	11/22/2006		
048502.006US	Granted	AUTOMOTIVE OIL LEVEL CONTROL VALVE APPARATUS	United States	07/897185	6/11/1992	5,209,399	5/11/1993
048502.007CIP1	Granted	METHOD OF MAKING METAL FOIL MATERIAL FOR CATALYTIC CONVERTERS	United States	08/334722	11/4/1994	5,516,383	5/14/1996
048502.007DIV1	Granted	CATALYTIC CONVERTERS-METAL FOIL MATERIAL FOR USE THEREIN, AND A METHOD OF MAKING THE MATERIAL	United States	08/286719	8/5/1994	5,447,698	9/5/1995
048502.007US	Granted	CATALYTIC CONVERTERS - METAL FOIL MATERIAL FOR USE THEREIN, AND A METHOD OF MAKING THE MATERIAL	United States	08/111384	8/24/1993	5,366,139	11/24/1994
048502.008US	Granted	CATALYTIC CONVERTERS-METAL FOIL MATERIAL FOR USE HEREIN, AND A METHOD OF MAKING THE MATERIAL	United States	08/926526	9/8/1997	5,980,658	11/9/1999
048502.009US	Granted	METHOD OF MAKING ELECTRICAL CONTACT MATERIAL	United States	08/439259	5/11/1995	5,607,522	3/4/1997
048502.011US	Granted	HEAT EXCHANGER ASSEMBLIES - MATERIAL FOR USE THEREIN, AND A METHOD OF MAKING THE	United States	08/207456	3/7/1994	5,553,770	9/10/1996

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Docket No.	Status	Title	Country	Application No.	Application Date	Patent No.	Grant Date
048502.012US	Filed	HEATING ELEMENT SHEATHS	United States	11/877193	10/23/2007		
048502.013CON	Filed	IN-SITU DIFFUSION ALLOYING AND PRE-OXIDATION ANNEALING IN AIR OF FERRAL ALLOY CATALYTIC CONVERTER MATERIAL	United States	12/327535	12/3/2008		
048502.014US	Granted	METHOD FOR CLEANING THIN METAL STRIP MATERIAL	United States	09/669331	9/25/2000	6,379,468	4/30/2002
048502.015US	Granted	METHOD FOR REDUCING THICKNESS OF A HIGH-STRENGTH LOW DUCTILITY METAL FOIL ON THIN STRIP ELEMENT	United States	07/819695	1/13/1992	5/222,282	6/29/1993
048502.016DIV1	Granted	METHOD OF MAKING CLAD MATERIALS USING LEAD ALLOYS AND COMPOSITE STRIPS MADE BY SUCH METHOD	United States	09/568829	5/11/2000	6475675	11/5/2002
048502.016US	Granted	METHOD OF MAKING CLAD MATERIALS USING LEAD ALLOYS AND COMPOSITE STRIPS MADE BY SUCH METHOD	United States	09/143553	8/31/1998	6,096,145	8/1/2000
048502.017CIP1	Granted	METHOD OF PRODUCING TIG BRAZING STRIPS OR FOILS AND THE RESULTING BRAZING STRIPS OR FOILS	United States	10/743641	12/22/2003	7,776,454	8/17/2010

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Docket No.	Status	Title	Country	Application No.	Application Date	Patent No.	Grant Date
048502.017US	Granted	METHOD OF PRODUCING T1 BRAZING STRIPS OR FOILS AND THE RESULTING BRAZING STRIPS OR FOILS	United States	10/320068	12/16/2002	6,722,002	4/20/2004
048502.018US	Granted	SELF BRAZING MATERIALS FOR ELEVATED TEMPERATURE APPLICATIONS	United States	09/976520	10/12/2001	6,763,870	8/31/2004
048502.019US	Granted	SHIELDING MATERIAL AND SHIELDED ROOM	United States	07/260048	10/20/1988	4890083	12/26/1989
048502.027	Filed	METALLIC LAMINATE COMPOSITE	United States	12/180931	7/28/2008		
048502.028US	Granted	TEMPERATURE RESPONSIVE FLOW CONTROL VALVE APPARATUS	United States	07/098094	9/17/1987	4783000	11/8/1988
048502.037	Filed	BATTERY TABS AND METHOD OF MAKING THE SAME	United States	61/340319	3/15/2010		
048502.038P	Filed	A METALLIC COMPOSITE MATERIAL	United States	61/365594	7/19/2010		

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