PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE.	ASSIGNMENT		

CONVEYING PARTY DATA

Name	Execution Date
Emmanuel C. Francois	10/07/2010
Konstantin S. Zuyev	09/01/2010
Muthu Jeevanantham	08/27/2010
Anne M. Bonner	08/23/2010
Michael W. Klett	09/28/2010
Dean S. Matsumoto	09/28/2010

RECEIVING PARTY DATA

Name:	SAINT-GOBAIN ABRASIVES, INC.	
Street Address:	One New Bond Street	
City:	Worcester	
State/Country:	MASSACHUSETTS	
Postal Code:	01615-0138	

Name:	SAINT-GOBAIN ABRASIFS
Street Address:	Rue de l'Ambassadeur
City:	Conflans-Sainte-Honorine
State/Country:	FRANCE
Postal Code:	78700

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12849674

CORRESPONDENCE DATA

Fax Number: (512)439-7199

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

Email: edougherty@LNAlaw.com

Correspondent Name: LARSON NEWMAN & ABEL, LLP

PATENT 501323396 REEL: 025155 FRAME: 0692

12849674

Address Line 1: 5914 West Courtyard Drive, Suite 200

Address Line 4: Austin, TEXAS 78730

NAME OF SUBMITTER: Ethan Schillinger

Total Attachments: 16

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ASSIGNMENT OF INVENTION

· · · · · · · · · · · · · · · · · · ·	the receipt of which is hereby acknowledged
I, an Assignor named below,	Starting of Somorvill e, MA 01564 USA
Emmanuel C. Francois	of -Somorvill e, MA 01564 USA
Konstantin S. Zuyev	of Grafton, MA 01536 USA
Muthu Jeevanantham	of Worcester, MA 01606 USA
Anne M. Bonner	of Nashua, NH 03062 USA
Michael W. Klett	of Holden, MA 01520 USA
Dean S. Matsumoto	of Worcester, MA 01606 USA

hereby sell, assign and transfer to

ASSIGNEE:

SAINT-GOBAIN ABRASIVES, INC., a Massachusetts Corporation, having a principal place of business at One New Bond Street, Worcester, MA 01615-0138 USA.

and

SAINT-GOBAIN ABRASIFS, having a principal place of business at Rue de l'Ambassadeur, 78700 Conflans-Sainte-Honorine, FRANCE,

its successors, assigns and legal representatives, my entire right, title and interest throughout the world, including all rights to claim priority, in and to the invention disclosed in:

	application execu			ate of this Assignmen	nt,
				ed on	,
U.S. Applica	tion No.: <u>12/849</u> ,	<u>674</u> , filed	d on <u>August :</u>	<u>3. 2010</u> , or	
International	Application No.:	PCT/		, filed on	
ENTITLED:	ABRASIVE DISTRIUBTION			CONTROLLED	POROSITY

INVENTOR(S): Emmanuel C. François, Konstantin S. Zuyev, Muthu Jeevanantham, Anne M. Bonner, Michael W. Klett, and Dean S. Matsumoto.

("Invention") including without limitation, my entire right, title and interest in and to any and all United States and foreign applications (including international, regional and foreign national applications) for said Invention, including divisions, continuations, continuations-in-part, utility models, industrial designs, renewals, substitutes and extensions thereof, and in and to any and all patents, invention registrations, or other forms of protection ("Patents") of every country or region

Page 1 of 3

Attorney Docket No.: 1035-BO6142-US

that may be granted or have been granted for said inv reexaminations thereof.	ention, including any reissues and
To comply with 37 C.F.R. § 3.21 for recording this Assignma application number and filing date be inserted here (e, if not already shown above,
I authorize Assignee to apply for patents in foreign countries rights of priority without further authorization from me.	s for said Invention, and to claim all
I agree that, upon request and without further compensation, legal representatives and assigns will do all lawful acts, inclugiving of testimony, that may be necessary or desirable for enforcing the Patents in the United States and throughout the perfecting, recording, or maintaining the title of Assignee, Invention, said application, and any Patents granted for said throughout the world.	iding the execution of papers and the robtaining, sustaining, reissuing, or he world for said Invention, and for its successors and assigns, to said
I hereby covenant that no assignment, sale, license, agreement made or entered into that would conflict with this Assignment	
I authorize and request the Director of the United States agencies, departments, or other similar offices and officials Patents granted for said Invention, whether on said applic divisional, continuation, continuation-in-part, reexaminatio Assignee, its successors and assigns, as the assignee of the ent	of all foreign countries to issue any cation or on any subsequently filed n, reissue or other application, to
Executed on October 7th, 2010 by	Emmanuel C. Fransois
Witnessed on October 1/2 , 20\$10 by Carry	Vitness Signature
Executed on, 200 by	Konstantin S. Zuyev
Witnessed on, 200by	Witness Signature

Executed on	, 200 by	Muthu Jeevanantham
ti .	, 200 by	Witness Signature
Executed on	, 200 by	Anne M. Bonner
Witnessed on		Witness Signature
Executed on	, 200 by	Michael W. Klett
Witnessed on		Witness Signature
Executed on	, 200 by	Dean S. Matsumoto
Witnessed on	, 200 by	Witness Signature,

ASSIGNMENT OF INVENTION

For good and valuable consideration, the receipt of which is hereby acknowledged, I, an Assignor named below,

Emmanuel C. François of Somerville, MA 01564 USA

Konstantin S. Zuyev of Grafton, MA 01536 USA

Muthu Jeevanantham of Worcester, MA 01606 USA

Anne M. Bonnet of Nashua, NH 03062 USA

Michael W. Klett of Holden, MA 01520 USA

Dean S. Matsumoto of Worcester, MA 01606 USA

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and

SAINT-GOBAIN ABRASIFS, having a principal place of business at Rue de l'Ambassadeur, 78700 Conflans-Sainte-Honorine, FRANCE,

its successors, assigns and legal representatives, my entire right, title and interest throughout the world, including all rights to claim priority, in and to the invention disclosed in:

				nte of this Assignme	nt,
	Application exec				
US Provisi	ional Application		, file	ed on	9
US Applic	ation No.: 12/849	,674, file	d on <u>August</u> :	3, 2010, or	
International	d Application No	.: <u>PCT/</u>		, filed on	
ENTITE DD	i Din i Cittin	TOOT	TT L TOWN CO	COMPROTTER	2020
ENTITLED:	ABRASIVE	TOOL	HAVING	CONTROLLED	POROSITY
	DISTRIUBTI	ION, and	naming as		

INVENTOR(S): Emmanuel C. Francois, Konstantin S. Zuyev, Muthu Jeevanantham, Anne M. Bonner, Michael W. Klett, and Dean S. Matsumoto.

("Invention") including without limitation, my entire right, title and interest in and to any and all United States and foreign applications (including international, regional and foreign national applications) for said Invention, including divisions, continuations, continuations-in-part, utility models, industrial designs, renewals, substitutes and extensions thereof, and in and to any and all patents, invention registrations, or other forms of protection ("Patents") of every country or region

Page 1 of 3

Attorney Docket No : 1035-BO6142-US

that may be granted or have been granted for said Invention, including any reissues and reexaminations thereof.	
To comply with 37 C F R § 3 21 for recording this Assignment, I authorize and request that the application number and filing date be inserted here, if not already shown above, (
I authorize Assignee to apply for patents in foreign countries for said Invention, and to claim all rights of priority without further authorization from me.	
I agree that, upon request and without further compensation, but at no expense to me, I and/or my legal representatives and assigns will do all lawful acts, including the execution of papers and the giving of testimony, that may be necessary or desirable for obtaining, sustaining, reissuing, or enforcing the Patents in the United States and throughout the world for said Invention, and for perfecting, recording, or maintaining the title of Assignee, its successors and assigns, to said Invention, said application, and any Patents granted for said Invention in the United States and throughout the world.	
I hereby covenant that no assignment, sale, license, agreement, or encumbrance has been or will be made or entered into that would conflict with this Assignment.	
I authorize and request the Director of the United States Patent and Trademark Office and agencies, departments, or other similar offices and officials of all foreign countries to issue any Patents granted for said Invention, whether on said application or on any subsequently filed divisional, continuation, continuation-in-part, reexamination, reissue or other application, to Assignce, its successors and assigns, as the assignce of the entire interest in said Invention.	
Executed on, 200 by, Emmanuel C. Francois	
Witnessed on, 200by, Witness Signature	
Executed on 3/1, 2010 by Constantin Zuyev	
Witnessed on LEO KIMANTSA, 2000 by Leo Witness Signature	******

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Executed on	_, 200	_ by	Muthu Jeevanantham
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Executed on			
Witnessed on			Witness Signature
Executed on	_, 200		Dean S. Matsumoto
Witnessed on	, 200	by	
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	оть , 200 <u>0</u> by	
Executed on	, 200 by	Anne M. Bonner
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		Witness Signature
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		Michael W. Klett
Witnessed on	, 200by	
		Witness Signature
Executed on	, 200 by	
	-	Dean S. Matsumoto
Witnessed on	, 200 by	· · · · · · · · · · · · · · · · · · ·
		Witness Signature

ASSIGNMENT OF INVENTION

For good and valuable consideration, the receipt of which is hereby acknowledged, I, an Assignor named below,

Emmanuel C. Francois of Somerville, MA 01564 USA

Konstantin S. Zuyev of Grafton, MA 01536 USA

Muthu Jeevanantham of Worcester, MA 01606 USA

Anne M. Bonner of Nashua, NH 03062 USA

Michael W. Klett of Holden, MA 01520 USA

Dean S. Matsumoto of Worcester, MA 01606 USA

hereby sell, assign and transfer to

ASSIGNEE:

SAINT-GOBAIN ABRASIVES, INC., a Massachusetts Corporation, having a principal place of business at One New Bond Street, Worcester, MA 01615-0138 USA,

and

SAINT-GOBAIN ABRASIFS, having a principal place of business at Rue de l'Ambassadeur, 78700 Conflans-Sainte-Honorine, FRANCE,

its successors, assigns and legal representatives, my entire right, title and interest throughout the world, including all rights to claim priority, in and to the invention disclosed in:

U.S. Patent Application executed on o	r about the date of this Assignment,
U.S. Patent Application executed on	
U.S. Provisional Application	
U.S. Application No.: 12/849,674, file	d on <u>August 3, 2010</u> , or
International Application No.: PCT/	, filed on .

ENTITLED: ABRASIVE TOOL HAVING CONTROLLED POROSITY DISTRIUBTION, and naming as

INVENTOR(S): Emmanuel C. Francois, Konstantin S. Zuyev, Muthu Jeevanantham, Anne M. Bonner, Michael W. Klett, and Dean S. Matsumoto.

("Invention") including without limitation, my entire right, title and interest in and to any and all United States and foreign applications (including international, regional and foreign national applications) for said Invention, including divisions, continuations, continuations-in-part, utility models, industrial designs, renewals, substitutes and extensions thereof, and in and to any and all patents, invention registrations, or other forms of protection ("Patents") of every country or region

Page 1 of 3

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that may be granted or reexaminations thereof.	have been granted for sa	id Invention, including any reissues and
application number and	filing date be inserted	Assignment, I authorize and request that the line, if not already shown above, when they become known.
	ply for patents in foreign courther authorization from me	ountries for said Invention, and to claim all
legal representatives and a giving of testimony, that enforcing the Patents in the perfecting, recording, or a	ssigns will do all lawful act may be necessary or desira to United States and throug maintaining the title of As	sation, but at no expense to me, I and/or my s, including the execution of papers and the able for obtaining, sustaining, reissuing, or shout the world for said Invention, and for signee, its successors and assigns, to said for said Invention in the United States and
I hereby covenant that no a made or entered into that w	ssignment, sale, license, agr ould conflict with this Assig	eement, or encumbrance has been or will be nment.
agencies, departments, or Patents granted for said I divisional, continuation, or	other similar offices and of Invention, whether on said continuation-in-part, reexan	States Patent and Trademark Office and ficials of all foreign countries to issue any application or on any subsequently filed nination, reissue or other application, to the entire interest in said Invention.
Executed on	, 200 by	Emmanuel C. Francois
Witnessed on	, 200 by	Witness Signature
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		Konstantin S. Zuyev
Witnessed on		Konstantin S. Zuyev Witness Signature

Executed on	, 200_	by	
Executed on 23 August Witnessed on 23 August	2010 , 2 00 -	by Anne M	- Bower ,
Executed on	, 200	byby	Witness Signature
Executed on	_, 200	by	Dean S. Matsumoto Witness Signature

ASSIGNMENT OF INVENTION

For	good	and	valuable	consideration,	the	receipt	of	which	is	hereby	acknowledged,
I, an	Assign	or na	med below	•							

Emmanuel C. François of Somerville, MA 01564 USA

Konstantin S. Zuyev of Grafton, MA 01536 USA

Muthu Jeevanantham of Worcester, MA 01606 USA

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U.S. Patent Application	ı executed on or ab	out the date of this Assign	nment,
U.S. Patent Application			
U.S. Provisional Appli	cation	, filed on	,
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International Application		, filed on	

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Page 1 of 3

reexaminations thereof.	nave occii gia	inted for sa	d Invention, including any reissues an	ıd
application number and	filing date	be inserted	ssignment, I authorize and request that the here, if not already shown above when they become known.	
I authorize Assignee to apprights of priority without fu			untries for said Invention, and to claim a	ıll
legal representatives and as giving of testimony, that a enforcing the Patents in the perfecting, recording, or re-	ssigns will do a may be necessa ne United States maintaining—the	Il lawful acts ary or desira s and throug title-of-Ass	ation, but at no expense to me, I and/or me, including the execution of papers and the ble for obtaining, sustaining, reissuing, conduct the world for said Invention, and for ignee, its successors and assigns, to said Invention in the United States and	ne or or id
I hereby covenant that no a made or entered into that w			ement, or encumbrance has been or will burnent.)¢
agencies, departments, or or Patents granted for said I divisional, continuation, or	other similar of nvention, whet continuation-in-	fices and off her on said part, reexam	States Patent and Trademark Office an icials of all foreign countries to issue an application or on any subsequently file ination, reissue or other application, the entire interest in said Invention.	iy :đ
Executed on	, 200	by	Emmanuel C. Francois	
			Emmanuel C. Francois Witness Signature	
Witnessed on	, 200_	by		
Witnessed on		by by	Witness Signature	

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Executed on	, 200 by	Muthu Jeevanantham
		Muthu Jeevanantham
Witnessed on	, 200 by	,
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Executed on	, 200 by	, Ann M D
		Anne M. Bonner
Witnessed on		Witness Signature
		Witness Signature
Executed on 9-28	,2011/0 by Mac)	la O W Klett, Michael W. Klett
,	V	Michael W. Klett
Witnessed on 7/28	200 / 2 hv	Witness Signature
	, 2000 <u>. 0</u> 0,	
Executed on	, 200 by	Dean S. Matsumoto
		Dean S. Matsumoto
Witnessed on	, 200by	,
		Witness Signature

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Εĩ	NTITLED:	ABRASIVE	TOOL	HAVING	CONTROLLED	POROSITY
L_	International	Application No.	.: <u>PCT/</u>		, filed on	
		tion No.: <u>12/849</u>				
					ed on	
	U.S. Patent A	Application exec	uted on _		0	
	J. U.S. Patent A	Application exec	uted on o	r about the da	ite of this Assignmen	nt,

INVENTOR(S): Emmanuel C. Francois, Konstantin S. Zuyev, Muthu Jeevanantham,

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I authorize Assignee to apply for patents in foreign counrights of priority without further authorization from me.	tries for said Invention, and to claim all
I agree that, upon request and without further compensation legal representatives and assigns will do all lawful acts, it giving of testimony, that may be necessary or desirable enforcing the Patents in the United States and throughout perfecting, recording, or maintaining the title of Assign Invention, said application, and any Patents granted for throughout the world.	neluding the execution of papers and the for obtaining, sustaining, reissuing, or ut the world for said Invention, and for nee, its successors and assigns, to said
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Executed on, 200 by	Emmanuel C. François
Witnessed on, 200 by	Witness Signature
Executed on, 200 by	Konstantin S. Zuyev
Witnessed on, 200 by	Witness Signature

Executed on	_, 200	by	Muthu Jeevanantham
		by	Witness Signature
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Executed on	_, 200	by	Anne M. Bonner
Witnessed on	, 200_	by	Witness Signature
Executed on	_, 200	_ by	Michael W. Klett
Witnessed on		by	Witness Signature
Executed on September 28	_, 20 _	by D .	Dean S. Matsumoto
Witnessed on <u>September 28</u>	, , 20ø <u>_</u>	<u>0</u> by <u>Ke</u>	elley McNeal, Witness Signature