### 502513844 09/30/2013

#### PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### CONVEYING PARTY DATA

Name	Execution Date
Mizuki NISHI	06/26/2013
Takayuki OGAWA	06/26/2013
Mitsuo HORI	07/01/2013

### RECEIVING PARTY DATA

Name:	Central Glass Company, Limited	
Street Address:	5253, Oaza Okiube	
City:	Ube-shi, Yamaguchi	
State/Country:	JAPAN	
Postal Code:	755-0001	

#### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14001619

#### CORRESPONDENCE DATA

Fax Number: 2026288844

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

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Email: abanerjee@crowell.com
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Address Line 1: P.O. Box 14300

Address Line 4: Washington, DISTRICT OF COLUMBIA 20044-4300

ATTORNEY DOCKET NUMBER:	038788.65742US
NAME OF SUBMITTER:	Michael H. Jacobs
Signature:	/Michael H. Jacobs/
Date:	09/30/2013

Total Attachments: 3

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PATENT

REEL: 031305 FRAME: 0192

# U.S. Rights - Sole or Joint

# ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

name and	CENTRAL GLAS	S COMPANY, LIMITED	
address of	5253, Oaza Okiube		A The Control of the Control
assignee	Yamaguchi 755-00		
	(hereinafter ASSIGNEE) all right, title possessions in and to his invention rel	e and interest for the United Stat ating to	es, its territories and
title of invention	LEAD-FREE SOLDER ALLOY FOR VE	HICLE GLASS	
	as set forth in his/her United States Pa	tent Application	
check one	( ) executed concur ( ) executed on		
		/JP2012/054699 Filed F	Horvary 27, 2012
	successors or assigns in accordance he Each of the undersigne unencumbered right to sell and assign has not executed and will not execute Each of the undersigne request of said ASSIGNEE, its successors and end assign his many self- information known to him/her relating will execute and deliver any papers, in and perform all other lawful acts desuccessors, legal representatives or application including divisions and convenience and assignment of the said ASSIGNEE, its successors, or legal representatives or assigns in ob- United States for said invention;	ght to make applications for Let and to claim priority under the Interty, and in and to any and all application or for said inventions, to be held and enjoyed by assigns to the full end of the tear granted as fully and entirely as is Assignment not be made; I hereby authorizes and request and all such Letters Patent to rewith; I warrants and covenants that I the interests herein sold and as any document or instrument in a different covenants and agrees cessors, legal representatives of its successors, legal representatives and invention or patent applicate all rightful oaths, testify in emed necessary or desirable by assigns to perfect title to say con, including reissues, reexamicassigns or to assist said ASSIG taining, reissuing or enforcing thereby grants the firm of CRC ssignment any further identifications.	ton said invention or ters Patents throughout ternational Convention. Letters Patent of any and all said ASSIGNEE, its arm or terms for which would have been held as the Commissioner of a said ASSIGNEE, its arm of the said and that he/she onflict herewith; that at any time upon assigns he/she will actives or assigns all ication and that he/she any legal proceedings and all Letters Patent and all Letters Patent mations, or extensions, and the work of the well-been said and all Letters Patent of the well-been which may be a said ASSIGNEE.
names and	mijaki nishi date ob/	24/2018	dele.
signatures	Name: Mizuki Nishi	Name: Takayuki Oga	date wa
of			
inventors			
	date	The state of the s	date
	Name: Mitsuo Hori	Name:	

PATENT REEL: 031305 FRAME: 0193

## ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

name and
address of
assignee

CENTRAL GLASS COMPANY, LIMITED

5253, Oaza Okiube, Ube-shi, Yamaguchi 755-0001 Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to

title of invention

LEAD-FREE SOLDER ALLOY FOR VEHICLE GLASS

as set forth in his/her United States Patent Application

check one

) executed concurrently herewith 

in and to said United States Patent Application including any and all divisions or continuations and Convention applications based in whole or in part on said invention or upon said application, including the right to make applications for Letters Patents throughout the world in respect to the invention and to claim priority under the International Convention for the Protection of Industrial Property, and in and to any and all Letters Patent of any country which may issue on any such application or for said invention, including any and all reissues, reexaminations, or extensions, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not be made;

Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees that at any time upon request of said ASSIGNEE, its successors, legal representatives or assigns he/she will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him/her relating to said invention or patent application and that he/she will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues, reexaminations, or extensions, in said ASSIGN

Each of the undersigned hereby grants the firm of CROWELL & MORING LLP the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for

recordation of this Assignment.

names and			date	Jakayıki Ogama	date 06/26/2013
signatures of nventors	Name:	Mizuki Nishi		Name: Takayuki Ogawa	
			date		date
4	Name:	Mitsuo Hori		Name:	

**PATENT** REEL: 031305 FRAME: 0194

## ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

name and
address of
assignee

CENTRAL GLASS COMPANY, LIMITED

5253, Oaza Okiube, Ube-shi, Yamaguchi 755-0001 Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to

title of invention

LEAD-FREE SOLDER ALLOY FOR VEHICLE GLASS

as set forth in his/her United States Patent Application

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(	)	executed concurrently herewith			
(	)	executed on			
(x	)	Serial No. PCT/JP2012/054699	Filed	February 27.	2012

in and to said United States Patent Application including any and all divisions or continuations and Convention applications based in whole or in part on said invention or upon said application, including the right to make applications for Letters Patents throughout the world in respect to the invention and to claim priority under the International Convention for the Protection of Industrial Property, and in and to any and all Letters Patent of any country which may issue on any such application or for said invention, including any and all reissues, reexaminations, or extensions, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not be made;

Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has the full and

Successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he/she has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he/she has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees that at any time upon request of said ASSIGNEE, its successors, legal representatives or assigns he/she will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him/her relating to said invention or patent application and that he/she will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues, reexaminations, or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the

legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention;

Each of the undersigned hereby grants the firm of CROWELL & MORING LLP the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

names and	date	4	date
signatures	Name: Mizuki Nishi	Name: Takayuki Ogawa	Difference of the control of the con
of nventors	Mitsup /fordate 07/01/13		date
	Name: Mitsuo Hori	Name:	

**PATENT REEL: 031305 FRAME: 0195** 

RECORDED: 09/30/2013