PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Dawid Dewit-Smith	08/26/2013
D. Wayne Leidy	08/23/2013
Carl L Fayerweather	08/22/2013
Terrence J Clark	08/22/2013
Daniel R Swiler	08/22/2013

RECEIVING PARTY DATA

Name:	Owens-Brockway Glass Container Inc.	
Street Address:	One Michael Owens Way	
City:	Perrysburg	
State/Country:	ОНЮ	
Postal Code:	43551	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13832829	

CORRESPONDENCE DATA

Fax Number:

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

Phone:567-336-8550Email:amy.bell@o-i.comCorrespondent Name:Susan L. Smith

Address Line 1: One Michael Owens Way
Address Line 4: Perrysburg, OHIO 43551

ATTORNEY DOCKET NUMBER:	19143	
NAME OF SUBMITTER:	Susan L. Smith	
Signature:	/susanlsmith/	

502471757 REEL: 031083 FRAME: 0186

1383787

Date:	08/26/2013
Total Attachments: 5 source=19143Assignment#page1.tif source=19143Assignment#page2.tif source=19143Assignment#page3.tif source=19143Assignment#page4.tif source=19143Assignment#page5.tif	

PATENT REEL: 031083 FRAME: 0187

WHEREAS, I, Dawid Dewest-Smith of 131 Slow Mill Drive, Goose Creek, South Carolina 29445, hereinafter referred to as ASSIGNOR, together with D. Wayne Leidy, Carl L. Fayerweather, Daniel R. Switer and Terence J. Clark, have invented certain improvements in an invention entitled "APPARATUS FOR MELTING AND REFINING SELICA-BASED GLASS", for which an application for a United States Petent was filed in the United States Petent & Trademark Office (USPTO) on March 15, 2013 and thereafter received a USPTO Serial Number of 13/632,829;

AND WHEREAS, Owene-Breckway Glass Container Inc., hereinafter referred to as ASSIGNEE, a corporation organized and existing under the lasts of the state of Delaware and having a place of business located at One Michael Owens Way, Perryaburg, Ohio 43551-2999, U.S.A., is destrous of acquiring the entire right, title and interest in and to said invention as described in said application including all patentable subject matter disclosed in said application.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as ASSIGNOR, do hereby sell, assign, transfer and convey unto ASSIGNEE, my entire right, title and interest, including all priority rights in the United States of America and all countries foreign thereto and under any or all international Conventions associated with each of said foreign countries, in and to: (A) said invention as described in said application, (B) said application and any continuation or continuation-in-pert application(s) of said application including all patentable subject matter disclosed therein, (C) any United States Petent(s) including any release, re-examination, extension or renewal of said initial States Patent(s) that may be granted in pursuance of said application(s), (D) any foreign patent application(s) that may be filed on said invention, or based on said application(s), in organizations or countries foreign to the United States of America, and (E) any foreign patent(s) granted on said foreign patent application(s).

I, as ASSIGNOR, hereby agree, without any additional consideration, to cooperate with and to assist ASSIGNEE in the filing and prosecution of said application(s) and to perform any other acts as ASSIGNEE or its successors, assigns, designees or legal representatives may deem necessary to secure to ASSIGNEE the rights and interest herein assigned and to acquire, hold, enforce, convey and uphold validity of any of said patenti(s), and upon request, to execute all papers including those required for said applications(s) or said patents(s). I, as ASSIGNOR, hereby represent and warrant that I have not granted any right, title or interest that would be inconsistent with the right, title and interest granted herein.

I, as ASSIGNOR, hereby authorize ASSIGNEE and its legal representatives to apply for loreign patents based on said invention or on said application(s), in ASSIGNEE'S own name or through its successors, assigns, designees, legal representatives, subsidiaries or related companies, under an international Convention or otherwise, and to enter into the appropriate spaces above in this ASSIGNMENT document, the filing date and USPTO Serial Number of said application for United States Patent, when known.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents of the USPTO to Issue any of said United States Patents to ASSIGNEE of the entire right, title and interest in and to any of said applications or United States Patents for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents (or the equivalent) in any organizations or countries foreign to the United States of America to issue any said foreign patent(s) to ASSIGNEE of the entire right, title and interest in and to any of said foreign patent application(s) or foreign patent(s) for the sole use and behard of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

This ASSIGNMENT is governed by and is to be construed in accordance with the laws of the State of Ohio, U.S.A. No representations, warranties, colleteral sasignments or conditions affecting this ASSIGNMENT are valid other than those expressed in this ASSIGNMENT. ASSIGNOR agrees that the provisions of this ASSIGNMENT are fully binding on ASSIGNOR and that ASSIGNOR'S respective heirs, executors, assigns and administrators have no right, title or interest in any of said applications, inventions or patents whatsoever.

IN WITNESS WHEREOF, the undersigned ASSIGNOR has caused his name	e to be subscribed hereto ti	nla <u>24 H</u> day of <u>Acquis</u> 2013.
	ASSIGNOR SIGNATURE:	Secured Little
STATE OF South Carolinas. COUNTY OF Berkeley 1	ASSIGNOR NAME:	Dewild Dewell-Smith
On this <u>\$16day of \(\text{August}\) 2013, before me, the undersigned Not \(\text{Scaule}\) \(\text{Laxa}\) \(\text{Line}\). U.S.A., paracrially appeared Dawid Dewel-Smith who instrument, and who acknowledged that he has aligned, easied and delivered this instru</u>		
Halis Riske Assessment Notary Publish County, State of ,		

Town Parol J.

PATENT REEL: 031083 FRAME: 0188

WHEREAS, I, D. Wayne Leidy of 288 Delmar Street, Philadelphia, Pennsylvania 19128, hereinafter referred to as ASSIGNOR, together with Dawid Dewet-Smith, Carl L. Faywerweather, Daniel R. Swiler and Terence J. Clark, have invented certain improvements in an Invention entitled "APPARATUS FOR MELTING AND REFINING SILICA-BASED GLASS", for which an application for a United States Patent was filed in the United States Patent & Trademark Office (USPTO) on March 15, 2013 and thereafter received a USPTO Serial Number of 13/832,829;

AND WHEREAS, Owens-Brockway Glass Container Inc., hereinafter referred to as ASSIGNEE, a corporation organized and existing under the laws of the state of Delaware and having a place of business located at One Michael-Owens Way, Perrysburg, Ohlo 43651-2999, U.S.A., is desirous of acquiring the entire right, title and interest in and to said invention as described in said application including all patentable subject matter disclosed in said application.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as ASSIGNOR, do hereby sell, assign, transfer and convey unto ASSIGNEE, my entire right, title and interest, including all priority rights in the United States of America and all countries foreign thereto and under any or all International Conventions associated with each of said foreign countries, in and to: (A) said invention as described in said application, (B) said application and any continuation or continuation-in-part application(s) of said application including all patentable subject matter disclosed therein, (C) any United States Patent(s) Including any reissue, re-examination, extension or renewal of said United States Patent(s) that may be granted in pursuance of said application(s), (D) any foreign patent application(s) that may be filed on said invention, or based on said application(s), in organizations or countries foreign to the United States of America, and (E) any foreign patent(s) granted on said foreign petent application(s).

I, as ASSIGNOR, hereby agree, without any additional consideration, to cooperate with and to assist ASSIGNEE in the filing and prosecution of said application(s) and to perform any other acts as ASSIGNEE or its successors, assigns, designees or legal representatives may deem necessary to secure to ASSIGNEE the rights and interest herein assigned and to acquire, hold, enforce, convey and uphold validity of any of said patent(s), and upon request, to execute all papers including those required for said applications(s) or said patents(s). I, as ASSIGNOR, hereby represent and warrant that I have not granted any right, title or interest that would be inconsistent with the right, title and interest granted herein.

i, as ASSIGNOR, hereby authorize ASSIGNEE and its legal representatives to apply for foreign patents based on said invention or on said application(s), in ASSIGNEE'S own name or through its successors, assigns, designees, legal representatives, subsidiaries or related companies, under an international Convention or otherwise, and to enter into the appropriate spaces above in this ASSIGNMENT document, the filling date and USPTO Serial Number of said application for United States Patent, when known.

i, as ASSIGNOR, hereby authorize and request the Commissioner of Patents of the USPTO to issue any of said United States Patents to ASSIGNEE of the entire right, title and interest in and to any of said applications or United States Patents for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents (or the equivalent) in any organizations or countries foreign to the United States of America to issue any said foreign patent(s) to ASSIGNEE of the entire right, title and interest in and to any of said foreign patent application(s) or foreign patent(s) for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

This ASSIGNMENT is governed by and is to be construed in accordance with the laws of the State of Ohio, U.S.A. No representations, warranties, collateral assignments or conditions affecting this ASSIGNMENT are valid other than those expressed in this ASSIGNMENT. ASSIGNOR agrees that the provisions of this ASSIGNMENT are fully binding on ASSIGNOR and that ASSIGNOR'S respective heirs, executors, assigns and administrators have no right, title or interest in any of said applications, inventions or patents whatsoever.

ASSIGNOR SIGNATURE

ASSIGNOR NAME: D. Wayne Leidy

On this 2 day of 2013, before me, the undersigned Notary Public in and for Young County, State of Pennsylvania U.S.A., personally appeared D. Wayne Leidy who is known to me to be the same person whose name is subscribed above to this instrument, and who acknowledged that he has signed, sealed and delivered this instrument as his free and voluntary act for the purposes herein set forth.

Notary Public, County, State of

NOTARIAL SEAL
DAVID W FRYER JR
Notary Public
WHITPAIN TWP., MONTGOMERY COUNTY
MY Commission Expires Feb 12, 2014

WHEREAS, I, Carl L. Fayerweather of 6408 Char Court, Maumee, Ohio 43537, hereinafter referred to as ASSIGNOR, together with Dawid Dewet-Smith, D. Wayne Leidy, Daniel R. Swiler and Terence J. Clark, have invented certain improvements in an invention entitled "APPARATUS FOR MELTING AND REFINING SILICA-BASED GLASS", for which an application for a United States Patent was filed in the United States Patent & Trademark Office (USPTO) on March 15, 2013 and thereafter received a USPTO Serial Number of 13/832,829;

AND WHEREAS, Owens-Brockway Glass Container Inc., hereinafter referred to as ASSIGNEE, a corporation organized and existing under the laws of the state of Delaware and having a place of business located at One Michael Owens Way, Perrysburg, Ohio 43551-2999, U.S.A., is desirous of acquiring the entire right, title and interest in and to said invention as described in said application including all patentable subject matter disclosed in said application.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as ASSIGNOR, do hereby sell, assign, transfer and convey unto ASSIGNEE, my entire right, title and interest, including all priority rights in the United States of America and all countries foreign thereto and under any or all International Conventions associated with each of said foreign countries, in and to: (A) said invention as described in said application, (8) said application and any continuation or continuation-in-part application(s) of said application including all patentable subject matter disclosed therein, (C) any United States Patent(s) including any reissue, re-examination, extension or renewal of said United States Patent(s) that may be granted in pursuance of said application(s), (D) any foreign patent application(s) that may be filed on said invention, or based on said application(s), in organizations or countries foreign to the United States of America, and (E) any foreign patent(s) granted on said foreign patent application(s).

I, as ASSIGNOR, hereby agree, without any additional consideration, to cooperate with and to assist ASSIGNEE in the filing and prosecution of said application(s) and to perform any other acts as ASSIGNEE or its successors, assigns, designees or legal representatives may deem necessary to secure to ASSIGNEE the rights and interest herein assigned and to acquire, hold, enforce, convey and uphold validity of any of said patent(s), and upon request, to execute all papers including those required for said applications(s) or said patents(s). I, as ASSIGNOR, hereby represent and warrant that I have not granted any right, title or interest that would be inconsistent with the right, title and interest granted herein.

I, as ASSIGNOR, hereby authorize ASSIGNEE and its legal representatives to apply for foreign patents based on said invention or on said application(s), in ASSIGNEE'S own name or through its successors, assigns, designees, legal representatives, subsidiaries or related companies, under an International Convention or otherwise, and to enter into the appropriate spaces above in this ASSIGNMENT document, the filing date and USPTO Serial Number of said application for United States Patent, when known.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents of the USPTO to issue any of said United States Patents to ASSIGNEE of the entire right, title and interest in and to any of said applications or United States Patents for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents (or the equivalent) in any organizations or countries foreign to the United States of America to issue any said foreign patent(s) to ASSIGNEE of the entire right, title and interest in and to any of said foreign patent application(s) or foreign patent(s) for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

This ASSIGNMENT is governed by and is to be construed in accordance with the laws of the State of Ohio, U.S.A. No representations, warranties, collateral assignments or conditions affecting this ASSIGNMENT are valid other than those expressed in this ASSIGNMENT. ASSIGNOR agrees that the provisions of this ASSIGNMENT are fully binding on ASSIGNOR and that ASSIGNOR'S respective heirs, executors, assigns and administrators have no right, title or interest in any of said applications, inventions or patents whatsoever.

IN WITNESS WHEREOF, the undersigned ASSIGNOR has caused his name to be subscribed hereto this 22 day of

ASSIGNOR SIGNATURE:

ASSIGNOR NAME:

Carl L. Fayerweather

STATE OF OHIO COUNTY OF WOOD 1

On this 22 day of August 2013, before me, the undersigned Notary Public in and for Wood County, State of Ohio, U.S.A., personally appeared Carl L. Fayerweather who is known to me to be the same person whose name is subscribed above to this instrument, and who acknowledged that he has signed, sealed and delivered this instrument as his free and voluntary act for the purposes herein set forth,

ROBIN RADDE **NOTARY PUBLIC**

STATE OF OHIO

My Comm. Expires April 1, 20

REEL: 031083 FRAME: 0190

WHEREAS, I, Terence J. Clark of 3655 N. Sunset Way, Sanford, Michigan 46657, hereinafter referred to as ASSIGNOR, together with Dawid Dewet-Smith, D. Wayne Leidy, Carl L. Fayerweather, and Daniel R. Swiler, have invented certain improvements in an invention entitled "APPARATUS FOR MELTING AND REFINING SILICA-BASED GLASS", for which an application for a United States Patent was filed in the United States Patent & Trademark Office (USPTO) on March 15, 2013 and thereafter received a USPTO Serial Number of 13/832,829;

AND WHEREAS, Owens-Brockway Glass Container Inc., hereinafter referred to as ASSIGNEE, a corporation organized and existing under the laws of the state of Delaware and having a place of business located at One Michael Owens Way, Perrysburg, Ohio 43551-2999, U.S.A., is desirous of acquiring the entire right, title and interest in and to said invention as described in said application including all patentable subject matter disclosed in said application.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as ASSIGNOR, do hereby sell, assign, transfer and convey unto ASSIGNEE, my entire right, title and interest, including all priority rights in the United States of America and all countries foreign thereto and under any or all International Conventions associated with each of said foreign countries, in and to: (A) said invention as described in said application, (B) said application and any continuation or continuation-in-part application(s) of said application including all patentable subject matter disclosed therein, (C) any United States Patent(s) including any reissue, re-examination, extension or renewal of said United States Patent(s) that may be granted in pursuance of said application(s), (D) any foreign patent application(s) that may be filed on said invention, or based on said application(s), in organizations or countries foreign to the United States of America, and (E) any foreign patent(s) granted on said foreign patent application(s).

I, as ASSIGNOR, hereby agree, without any additional consideration, to cooperate with and to assist ASSIGNEE in the filing and prosecution of said application(s) and to perform any other acts as ASSIGNEE or its successors, assigns, designees or legal representatives may deem necessary to secure to ASSIGNEE the rights and interest herein assigned and to acquire, hold, enforce, convey and uphold validity of any of said patent(s), and upon request, to execute all papers including those required for said applications(s) or said patents(s). I, as ASSIGNOR, hereby represent and warrant that I have not granted any right, title or interest that would be inconsistent with the right, title and interest granted herein.

i, as ASSIGNOR, hereby authorize ASSIGNEE and its legal representatives to apply for foreign patents based on said invention or on said application(s), in ASSIGNEE'S own name or through its successors, assigns, designees, legal representatives, subsidiaries or related companies, under an international Convention or otherwise, and to enter into the appropriate spaces above in this ASSIGNMENT document, the filing date and USPTO Serial Number of said application for United States Patent, when known.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents of the USPTO to issue any of said United States Patents to ASSIGNEE of the entire right, title and interest in and to any of said applications or United States Patents for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

I, as ASSIGNOR, hereby authorize and request the Commissioner of Patents (or the equivalent) in any organizations or countries foreign to the United States of America to issue any said foreign patent(s) to ASSIGNEE of the entire right, title and interest in and to any of said foreign patent application(s) or foreign patent(s) for the sole use and behoof of ASSIGNEE to the full ends of the respective terms for which said patent is granted.

This ASSIGNMENT is governed by and is to be construed in accordance with the laws of the State of Ohio, U.S.A. No representations, warranties, collateral assignments or conditions affecting this ASSIGNMENT are valid other than those expressed in this ASSIGNMENT. ASSIGNOR agrees that the provisions of this ASSIGNMENT are fully binding on ASSIGNOR and that ASSIGNOR'S respective heirs, executors, assigns and administrators have no right, title or interest in any of said applications, inventions or patents whatsoever.

IN WITNESS WHEREOF, the undersigned ASSIGNOR has caused his name to be subscribed hereto this _______

ASSIGNOR SIGNATURE:

ASSIGNOR NAME:

Tere

STATE OF OHIO

COUNTY OF WOOD)

On this X day of ZO13, before me, the undersigned Notary Public in and for Wood County, State of Ohio, U.S.A., personally appeared Terence J. Clark, who is known to me to be the same person whose name is subscribed above to this instrument, and who acknowledged that he has signed, sealed and delivered this

instrument as his iree and voluntary act for the purposes herein set forth.

Notary Public Wood County, State of Ohio

AMY M. BELL Notary Public, State of Ohio My Commission Expires N A 12, 2015

PATENT REEL: 031083 FRAME: 0191

WHEREAS, I, Daniel R. Swiler of 6684 Mill Ridge Road, Maumee, Ohio 43537, hereinafter referred to as ASSIGNOR, together with Dawid Dewet-Smith, D. Wayne Leidy, Carl L. Fayerweather and Terence J. Clark, have invented certain improvements in an invention entitled "APPARATUS FOR MELTING AND REFINING SILICA-BASED GLASS", for which an application for a United States Patent was filed in the United States Patent & Trademark Office (USPTO) on March 15, 2013 and thereafter received a USPTO Serial Number of 13/832,829;

AND WHEREAS, **Owens-Brockway Glass Container Inc.**, hereinafter referred to as ASSIGNEE, a corporation organized and existing under the laws of the state of Delaware and having a place of business located at One Michael Owens Way, Perrysburg, Ohio 43551-2999, U.S.A., is desirous of acquiring the entire right, title and interest in and to said invention as described in said application including all patentable subject matter disclosed in said application.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as ASSIGNOR, do hereby sell, assign, transfer and convey unto ASSIGNEE, my entire right, title and interest, including all priority rights in the United States of America and all countries foreign thereto and under any or all international Conventions associated with each of said foreign countries, in and to: (A) said invention as described in said application, (B) said application and any continuation or continuation-in-part application(s) of said application including all patentable subject matter disclosed therein, (C) any United States Patent(s) including any reissue, re-examination, extension or renewal of said United States Patent(s) that may be granted in pursuance of said application(s), (D) any foreign patent application(s) that may be filed on said invention, or based on said application(s), in organizations or countries foreign to the United States of America, and (E) any foreign patent(s) granted on said foreign patent application(s).

I, as ASSIGNOR, hereby agree, without any additional consideration, to cooperate with and to assist ASSIGNEE in the filing and prosecution of said application(s) and to perform any other acts as ASSIGNEE or its successors, assigns, designees or legal representatives may deem necessary to secure to ASSIGNEE the rights and interest herein assigned and to acquire, hold, enforce, convey and uphoid validity of any of said patent(s), and upon request, to execute all papers including those required for said applications(s) or said patents(s). I, as ASSIGNOR, hereby represent and warrant that I have not granted any right, title or interest that would be inconsistent with the right, title and interest granted herein.

I, as ASSIGNOR, hereby authorize ASSIGNEE and its legal representatives to apply for foreign patents based on said invention or on said application(s), in ASSIGNEE'S own name or through its successors, assigns, designees, legal representatives, subsidiaries or related companies, under an International Convention or otherwise, and to enter into the appropriate spaces above in this ASSIGNMENT document, the filing date and USPTO Serial Number of said application for United States Patent, when known.

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IN WITNESS WHEREOF, the undersigned ASSIGNOR has caused his name to be subscribed hereto this 22 day of August 2013.

ASSIGNOR SIGNATURE: Daniel R. Swiler

STATE OF OHIO)
COUNTY OF WOOD)

On this 89 day of 49 day of 2013, before me, the undersigned Notary Public in and for Wood County, State of Ohio, U.S.A., personally appeared Daniel R. Swiler who is known to me to be the same person whose name is subscribed above to this instrument, and who acknowledged that he has signed, sealed and delivered this instrument as his free and voluntary act for the purposes herein set forth.

nis name on as sas needed void half act for the purposes herein set to a

Notary Public, Wood County, State of Ohio.

RECORDED: 08/26/2013

Kobin Kadde

ROBIN RADDE NOTARY PUBLIC

STATE OF OHIO

May Comm. Explana April 1, 20 PATENT

REEL: 031083 FRAME: 0192