TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 ETAS ID: TM565269

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
GED Purchaser, Inc.		03/04/2020	Corporation: DELAWARE
GED Integrated Holdings, Inc.		03/04/2020	Corporation: DELAWARE
GED Integrated Solutions, Inc.		03/04/2020	Corporation: DELAWARE

RECEIVING PARTY DATA

Name:	TCF National Bank
Street Address:	71 S. Wacker Drive, Suite 2110
City:	Chicago
State/Country:	ILLINOIS
Postal Code:	60606
Entity Type:	National Bank: UNITED STATES

PROPERTY NUMBERS Total: 13

Property Type	Number	Word Mark]
Registration Number:	2008673	GED	
Registration Number:	3220426	GED	
Registration Number:	3220425	GED INTEGRATED SOLUTIONS	
Registration Number:	2206474	GEDUSA	
Registration Number:	2238727	INTERGRID	
Registration Number:	2757073	LEANNET	
Registration Number:	2863983	REMAKENOW	
Registration Number:	4696110	ROBOCLEAN	
Registration Number:	5692627	ROBOFLOW	$\ $
Registration Number:	4060218	THINPLATE	
Registration Number:	1976701	WIN IG]
Registration Number:	2252590	WINFRAME]
Registration Number:	2268322	WINGRID]

CORRESPONDENCE DATA

Fax Number:

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.

TRADEMARK
REEL: 006882 FRAME: 0424

900538562

Email: jbleskin@schiffhardin.com

Correspondent Name: Jennifer Bleskin

Address Line 1: 233 S. Wacker Drive, Suite 7100

Address Line 2: Schiff Hardin LLP

Address Line 4: Chicago, ILLINOIS 60606

NAME OF SUBMITTER: Jennifer Bleskin

SIGNATURE: /s/ Jennifer Bleskin

DATE SIGNED: 03/04/2020

Total Attachments: 29

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PATENT, COPYRIGHT, LICENSE AND TRADEMARK SECURITY AGREEMENT

THIS PATENT, COPYRIGHT, LICENSE AND TRADEMARK SECURITY AGREEMENT ("Agreement") is made as of March 4, 2020 by GED Purchaser, Inc., a Delaware corporation ("Holdings"), GED Integrated Holdings, Inc., a Delaware corporation ("Intermediate Holdings"), and GED Integrated Solutions, Inc., a Delaware corporation ("Borrower"; Holdings, Intermediate Holdings and Borrower are referred to herein, collectively, as "Obligors" and, individually, as an "Obligor"), in favor of TCF National Bank ("Lender").

WITNESSETH:

WHEREAS, Obligors and Lender have entered into that certain Credit Agreement dated as of March 4, 2020 (as amended, restated, modified or supplemented from time to time, the "Credit Agreement"); and

WHEREAS, it is a condition to the effectiveness of the Credit Agreement and any extensions of credit to or for the benefit of Borrower thereunder that, among other things, each Obligor execute and deliver to Lender this Agreement;

NOW, THEREFORE, in consideration of the premises set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Obligor agrees as follows:

- 1. <u>Credit Agreement</u>. This Agreement is being entered into in connection with and pursuant to the Credit Agreement. Terms used herein which are not defined herein but are defined in the Credit Agreement shall have the meanings ascribed to them therein.
- **2.** Grant of Security Interest, Etc. To secure the complete and timely satisfaction of all of each Obligor's Liabilities each Obligor hereby grants to the Lender a security interest in and to all of such Obligor's right, title and interest in, to and under all of the following, whether now existing or hereafter arising:
- (i) patents and patent applications, including, without limitation, the inventions and improvements described and claimed therein, and those patents and patent applications listed on Schedule A attached hereto and made a part hereof, and (a) the reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all rights corresponding thereto throughout the world (all of the foregoing patents and applications, together with the items described in clauses (a) through (d), inclusive, in which such Obligor now or hereafter has any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the "Patents");

- (ii) all copyrights, copyright registrations and copyright applications including, without limitation, the copyrights and applications listed on Schedule B attached hereto and made a part hereof, and (a) renewals thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all rights corresponding thereto throughout the world (all of the foregoing copyrights, copyright registrations and copyright applications, together with the items described in clauses (a) through (d), inclusive, in which such Obligor now or hereafter has any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the "Copyrights");
- (iii) all such Obligor's rights and obligations pursuant to its license agreements with any other Person or Persons with respect to any Patents and Copyrights, whether such Obligor is a licensor or licensee under any such license agreements, including, without limitation, the licenses listed on <u>Schedule C</u> attached hereto and made a part hereof, and, subject to the terms of such licenses, the right to prepare for sale, sell and advertise for sale, all Inventory now or hereafter owned by such Obligor and now or hereafter covered by such licenses (all of the foregoing is hereinafter referred to collectively as the "<u>Patent and Copyright Licenses</u>");
- (iv) all service marks, trademarks, trademark or service mark registrations, trademark or service mark applications, domain names and trade names including, without limitation, the trademarks and service marks listed on Schedule D attached hereto and made a part hereof, and (a) renewals thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all rights corresponding thereto throughout the world (all the foregoing service marks, trademarks, registrations, applications and trade names, together with the items described in clauses (a) through (d), inclusive, with respect thereto in which such Obligor now or hereafter has any right, title or interest are sometimes hereinafter and/or collectively referred to as the "Marks");
- (v) all such Obligor's rights and obligations pursuant to its license agreements with any other Person or Persons with respect to any Marks, whether such Obligor is a licensor or licensee under any such license agreements, including, without limitation, the licenses listed on Schedule E attached hereto and made a part hereof, and, subject to the terms of such licenses, the right to prepare for sale, sell and advertise for sale, all Inventory now or hereafter owned by such Obligor and now or hereafter covered by such licenses (all of the foregoing is hereinafter referred to as "Trademark Licenses"); Patent and Copyright Licenses and Trademark Licenses are hereinafter referred to collectively as "Licenses"); and
- (vi) the goodwill of such Obligor's business connected with and symbolized by the Marks;

provided, however, that there shall be excluded from the foregoing grant of security interest all Excluded Property (as such term is defined in the Security Agreement).

- **Restrictions on Future Agreements.** Subject to the provisions of the Credit Agreement, each Obligor agrees and covenants that until the Liabilities (other than (i) Unasserted Contingent Indemnification Claims, and (ii) Banking Services Liabilities that have been cash collateralized in amounts, and pursuant to agreements, in form and substance satisfactory to Lender) shall have been satisfied in full and the Lender's commitments to extend credit under the Credit Agreement shall have been terminated, such Obligor will not, without Lender's prior written consent, take any action or enter into any agreement, including, without limitation entering into any license agreement (except any license agreement entered into in the Ordinary Course of Business and not in violation of any Royalty Document), which is inconsistent with such Obligor's obligations under this Agreement, and each Obligor further agrees and covenants that without Lender's prior written consent it will not take any action, or permit any action to be taken by others subject to its control, including its licensees, or fail to take any action which would affect the validity or enforcement or nature of the rights transferred to Lender under this Agreement unless and to the extent that such Obligor has concluded in the exercise of reasonable commercial judgment that any such rights do not relate to any Royalty Document and are no longer of material importance to the business of such Obligor. Each Obligor agrees and covenants not to sell or assign its interest in, or grant any license under, the Patents, Marks, Copyrights or Licenses, without receiving the prior written consent of Lender thereto except with respect to any such sales, assignments or grants made in the Ordinary Course of Business to the extent that such sales, assignments or grants do not relate to any Patents, Marks, Copyrights or License that are the subject of any Royalty Document and would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Notwithstanding the foregoing, no Obligor shall take any action in violation of the Credit Agreement, the Security Agreement or any Royalty Document.
- Certain Covenants, Representations and Warranties of each Obligor. Except 4. as otherwise set forth in the Schedules hereto, each Obligor covenants, represents and warrants (to the best of such Obligor's knowledge with respect to any Patents, Marks and Copyrights which are licensed by third parties to such Obligor) that: (i) the Patents, Marks, Copyrights and Licenses are subsisting, have not been adjudged invalid or unenforceable in whole or in part, and are not currently being challenged in any way; (ii) none of the Patents, Marks, Copyrights and Licenses that is material to such Obligor's business or the Royalty Agreement have lapsed or expired or have been abandoned, whether due to any failure to pay any maintenance or other fees or make any filing or otherwise (except as a result of expiration at the end of their non-renewable statutory terms); (iii) each of the Patents, Marks and Copyrights (other than applications therefor) that is material to such Obligor's business is valid and enforceable and such Obligor is unaware of any invalidating prior art (including public uses and sales) relative to such Patents, and is unaware of any impairments to such Patents, Marks or Copyrights which would have a material adverse effect on the validity and/or enforceability of such Patents, Marks or Copyrights; (iv) to the best of such Obligor's knowledge, no claim has been made that the use of any of the Patents, Marks, Copyrights or Licenses constitutes an infringement of a third party's rights in any material respect; (v) such Obligor owns the entire right, title and interest in and to each of the Patents, Marks and Copyrights (other than those being licensed to such Obligor pursuant to the Licenses) free and clear of any Liens and encumbrances of every kind and nature, and the Licenses are valid and subsisting licenses with respect to the Patents, Marks, Copyrights described therein, free and clear of any Liens and encumbrances of every kind and nature arising by, through or under such Obligor, in each case except for (A) rights granted by such Obligor

pursuant to the applicable licenses listed on <u>Schedules C</u> and <u>E</u>, and (B) Permitted Liens; (vi) the Patents, Marks and Copyrights and Licenses listed on <u>Schedules A</u>, <u>B</u>, <u>C</u>, <u>D</u> and <u>E</u> constitute all such items that are the subject of any registration or application for registration owned by such Obligor as of the date hereof and Schedules C and E set forth all material Licenses to which such Obligor is a party as of the date hereof; (vii) such Obligor has the unqualified right to enter into this Agreement and perform its terms; (viii) such Obligor will use proper statutory notice in connection with its use of the Patents, Marks and Copyrights (except as to any thereof which is no longer material to such Obligor's business) to the extent necessary to maintain its rights therein; and (ix) such Obligor will use standards of quality in its manufacture of products sold under the Marks substantially consistent with those currently employed by it.

- New Patents, Marks, Copyrights and Licenses. If, before the Liabilities (other than (i) Unasserted Contingent Indemnification Claims, and (ii) Banking Services Liabilities that have been cash collateralized in amounts, and pursuant to agreements, in form and substance satisfactory to Lender) shall have been satisfied in full and the Lender's commitments to extend credit under the Credit Agreement shall have been terminated, any Obligor shall (i) obtain rights to any new patentable inventions, trademarks, service marks, trademark or service mark registrations, copyrights, copyright registrations, trade names or licenses, or (ii) become entitled to the benefit of any patent, trademark or service mark application, trademark, service mark, trademark or service mark registration, copyrights, copyright registrations, license or license renewal, or patent for any reissue, division, continuation, renewal, extension, or continuation-inpart of any Patent or any improvement on any Patent, the provisions of Section 2 above shall automatically apply thereto and such Obligor shall give to Lender prompt written notice thereof. Each Obligor hereby authorizes Lender to modify this Agreement by noting any future acquired Patents, Marks, Copyrights on Schedule A, B or D and any Licenses and licensed Patents, Marks or Copyrights on Schedules C or E, as applicable; provided, however, that the failure of Lender to make any such notation shall not limit or affect the obligations of any Obligor or rights of Lender hereunder.
- 6. Royalties; Terms. Each Obligor hereby agrees that the security interest of Lender in all Patents, Marks, Copyrights and Licenses as described above shall be worldwide (or in the case of the Patents, Marks and Copyrights licensed to an Obligor such smaller geographic location if any is specified for such Obligor's use in the applicable License) and, without any liability for royalties or other related charges from Lender to such Obligor. The term of the security interest granted herein shall extend until the earlier of (i) the expiration of each of the respective Patents, Marks, Copyrights and Licenses assigned hereunder, or (ii) satisfaction in full of the Liabilities (other than (i) Unasserted Contingent Indemnification Claims, and (ii) Banking Services Liabilities that have been cash collateralized in amounts, and pursuant to agreements, in form and substance satisfactory to Lender) and termination of Lender's commitment to extend credit under the Credit Agreement.
- 7. <u>Inspection</u>. In accordance with the terms of the Credit Agreement, Lender shall have the right to inspect any Obligor's premises and to examine any Obligor's books, records and operations, including, without limitation, any Obligor's quality control processes. From and after the occurrence and during the continuance of a Default and notice by Lender to each Obligor of Lender's intention to enforce its rights and claims against any of the Patents, Marks, Copyrights and Licenses, each Obligor agrees that Lender, or a conservator appointed by Lender,

shall have the right to establish such additional product quality controls as Lender or said conservator, in its sole judgment, may deem necessary to assure maintenance of the quality of products sold by such Obligor under the Marks consistent with the quality of products now manufactured by such Obligor.

- 8. Termination of Each Obligor's Interest. This Agreement is made for collateral purposes only. Upon satisfaction in full of the Liabilities (other than (i) Unasserted Contingent Indemnification Claims, and (ii) Banking Services Liabilities that have been cash collateralized in amounts, and pursuant to agreements, in form and substance satisfactory to Lender) and termination of Lender's commitment to extend credit under the Credit Agreement, subject to any disposition thereof which may have been made by Lender pursuant hereto or pursuant to any of the other Financing Agreements, the security interest granted hereunder shall automatically be extinguished. Lender shall, at the request of any Obligor and at each Obligor's reasonable expense, execute and deliver to such Obligor, all termination statements and other instruments as may be necessary or proper to evidence the termination of Lender's security interest granted to Lender pursuant to this Agreement, subject to any disposition thereof which may have been made by Lender pursuant hereto or pursuant to any of the other Financing Agreements. Any such termination statements and instruments shall be without recourse upon or warranty by Lender.
- 9. <u>Duties of the Obligors</u>. Except to the extent the same is no longer material to such Obligor's business, each Obligor shall have the duty, as determined in such Obligor's reasonable discretion, (i) to prosecute diligently any application with respect to Patents, material Marks and material Copyrights, in each case pending as of the date hereof or hereafter, (ii) to make application on unpatented but patentable inventions and on registerable but unregistered trademarks, service marks and copyrights, and (iii) to preserve, maintain and enforce against infringement all material rights in patent applications and patents constituting the Patents, in material trademark or service mark applications, trademarks, service marks, and trademark or service mark registrations constituting the Marks, and in material copyright applications, copyrights and copyright registrations constituting the Copyrights. Any expenses incurred in connection with the foregoing (including, but not limited to, maintenance or renewal fees) shall be borne by the Obligors. Except to the extent the same is no longer material to such Obligor's business, each Obligor shall not abandon any pending patent application, trademark application, copyright application, service mark application, patent, trademark, service mark or copyright without the written consent of Lender.
- 10. <u>Lender's Right to Sue</u>. From and after the occurrence and during the continuance of a Default, Lender shall have the right, but shall in no way be obligated, to bring suit in its own name to enforce the Patents, the Marks, the Copyrights and the Licenses, and any licenses thereunder, and, if Lender shall commence any such suit, each Obligor shall, at the request of Lender, do any and all lawful acts and execute any and all proper documents reasonably required by Lender in aid of such enforcement, and each Obligor shall promptly, upon demand, reimburse and indemnify Lender for all reasonable costs and expenses incurred by Lender in the exercise of its rights under this <u>Section 10</u>.
- 11. <u>Waivers</u>. No course of dealing between any Obligor and Lender, nor any failure to exercise, nor any delay in exercising, on the part of Lender, any right, power or privilege

hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

- 12. <u>Severability</u>. The provisions of this Agreement are severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Agreement in any jurisdiction.
- **13.** <u>Modification</u>. This Agreement cannot be altered, amended or modified in any way, except as specifically provided in <u>Section 5</u> hereof or by a writing signed by the parties hereto.
- 14. <u>Further Assurances</u>. Each Obligor shall execute and deliver to Lender, at any time or times hereafter at the request of Lender, all papers (including, without limitation, any as may be deemed desirable by Lender for filing or recording with any Patent and Trademark Office, and any successor thereto) and take all such actions (including, without limitation, paying the cost of filing or recording any of the foregoing in all public offices reasonably deemed desirable by Lender), as Lender may request, to evidence Lender's interest in the Patents, Marks, Copyrights and Licenses and the goodwill associated therewith and enforce Lender's rights under this Agreement.
- Cumulative Remedies; Power of Attorney; Effect on Financing Agreements. 15. All of Lender's rights and remedies with respect to the Patents, Marks, Copyrights and Licenses, whether established hereby, by any of the Financing Agreements or otherwise, or by any other agreements or by law shall be cumulative and may be exercised singularly or concurrently. Each Obligor hereby constitutes and appoints Lender as such Obligor's true and lawful attorney-infact, with full power of substitution in the premises, with power at any time after the occurrence and during the continuance of a Default, to (i) endorse such Obligor's name on all applications, documents, papers and instruments determined by Lender as necessary or desirable for Lender in the use of the Patents, Marks, Copyrights and Licenses, (ii) take any other actions with respect to the Patents, Marks, Copyrights and Licenses as Lender deems in good faith to be in the best interest of Lender, (iii) grant or issue any exclusive or non-exclusive license under the Patents, Marks or Copyrights to any Person, or (iv) assign, pledge, convey or otherwise transfer title in or dispose of the Patents, Marks, Copyrights or Licenses to any Person. Each Obligor hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney shall be irrevocable until the Liabilities (other than (i) Unasserted Contingent Indemnification Claims, and (ii) Banking Services Liabilities that have been cash collateralized in amounts, and pursuant to agreements, in form and substance satisfactory to Lender) shall have been satisfied in full and the Lender's commitments to extend credit under the Credit Agreement shall have been terminated. Each Obligor acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of Lender under the Credit Agreement or any of the Financing Agreements but rather is intended to facilitate the exercise of such rights and remedies. Lender shall have, in addition to all other rights and remedies given it by the terms of this Agreement, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction

in which the Patents, Marks, Copyrights or Licenses may be enforced. Each Obligor hereby releases the Lender from any and all claims, causes of action and demands at any time arising out of or with respect to any actions taken or omitted to be taken by the Lender under the powers of attorney granted herein.

- 16. <u>Binding Effect; Benefits</u>. This Agreement shall be binding upon each Obligor and its respective successors and assigns and shall inure to the benefit of Lender and its respective successors, assigns and nominees.
- 17. Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, AND ANY DISPUTE BETWEEN THE PARTIES HERETO ARISING OUT OF, CONNECTED WITH, RELATED TO, OR INCIDENTAL TO THE RELATIONSHIP ESTABLISHED BETWEEN THEM IN CONNECTION WITH THIS AGREEMENT, AND WHETHER ARISING IN CONTRACT, TORT, EQUITY, OR OTHERWISE, SHALL BE RESOLVED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF NEW YORK (INCLUDING SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW, BUT EXCLUDING ALL OTHER CHOICE OF LAW AND CONFLICTS OF LAW RULES).
- 18. <u>Counterparts</u>. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The delivery of an executed counterpart of a signature page or acceptance to this Agreement by telecopier or other electronic transmission shall be effective as delivery of a manually executed counterpart of this Agreement.

[signature page follows]

-7-

IN WITNESS WHEREOF, the parties hereto have entered into this Patent, Copyright, License and Trademark Security Agreement as of the date first above written.

GED PURCHASER, INC.
By (1) (1/4)
Name: William Weaver
Title: President
GED INTEGRATED HOLDINGS, INC.
ву/ <i>П/а 14</i> >
Name: William Weaver
Title: President
GED INTEGRATED SOLUTIONS, INC.
By: UMA GO
Name: William Weaver
Title: President
A A MANA A A MANAMATER

The undersigned accepts and agrees to the foregoing Patent, Copyright, License and Trademark Security Agreement as of the date first written above.

TCF NATIONAL BANK

By:		
	KC Beuker	

Title: Senior Vice President

IN WITNESS WHEREOF, the parties hereto have entered into this Patent, Copyright, License and Trademark Security Agreement as of the date first above written.

GED PURCHASER, INC.

Зу:
Name:
Γitle:
GED INTEGRATED HOLDINGS, INC.
Ву:
Name:
Title:
GED INTEGRATED SOLUTIONS, INC.
Зу:
Name:
Fitle:

The undersigned accepts and agrees to the foregoing Patent, Copyright, License and Trademark Security Agreement as of the date first written above.

TCF NATIONAL BANK

Name: KC Beuker

Title: Senior Vice President

Schedule A

Patents and Patent Applications

AUTOMATED SPACER FRAME U	AUTOMATED SPACER FRAME N FABRICATION	AUTOMATED SPACER FRAME N FABRICATION	AUTOMATED SPACER FRAME C FABRICATION	AUTOMATED SPACER FRAME E FABRICATION	AUTOMATED SPACER FRAME C FABRICATION	AUTOMATED SPACER FRAME C FABRICATION	AUTOMATED SPACER FRAME UFABRICATION	APPARATUS FOR PROCESSING SEALANT OF AN INSULATING GLASS UNIT	APPARATUS FOR EFFICIENT ASSEMBLY OF MULTI-PANE INSULATING GLASS WINDOWS	APPARATUS AND METHOD FOR USEALING AN IGU	APPARATUS AND METHOD FOR PROCESSING SEALANT OF AN INSULATING GLASS UNIT	AIR KNIFE AND CONVEYOR SYSTEM	AIR KNIFE AND CONVEYOR SYSTEM	AIR KNIFE	Tute
US	MX	MX	CA	EP	CA	CA	US	CA	US	US	US	CA	CA	US	Country
DIV	DIV	ORD	DIV	ORD	ORD	DIV	ORD	DIV	DIV	ORD	DIV	DIV	ORD	ORD	Case Type
Granted	Pending	Pending	Published	Published	Granted	Allowed	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Status
15/013392	MX/A/2018/006892	MX/A/2011/007590	3030123	11173368.9	2745772	2807032	13/157827	2814739	14/334895	14/645579	13/968621	2828542	2422479	10/352010	Application No.
02-Feb-	15-Jul- 2011	15-Jul- 2011	08-Jul- 2011	08-Jul- 2011	08-Jul- 2011	08-Jul- 2011	10-Jun- 2011	26-Jun- 2003	18-Jul- 2014	12-Mar- 2015	16-Aug- 2013	18-Mar- 2003	18-Mar- 2003	27-Jan- 2003	Filing Date
10369617					2745772	2807032	9279283	2814739	9534439	10352091	9834980	2828542	2422479	6742285	Patent No.
06-Aug-					11-Jun-2013	19-Feb- 2019	08-Mar- 2016	20-Oct- 2015	03-Jan-2017	16-Jul-2019	05-Dec- 2017	16 - Feb - 2016	25-Feb- 2014	01-Jun-2004	Patent Date

09-Mar-	1475491	23-Jan-	04001483.9	Granted	ORD	EP	CONTROLLED DISPENSING OF
19-Nov- 2013	2455353	16-Jan- 2004	2455353	Granted	ORD	CA	CONTROLLED DISPENSING OF MATERIA
10-Aug- 2010	2364334	05-Dec- 2001	2364334	Granted	ORD	CA	CONTROLLED DISPENSING OF MATERIA
07-Oct- 2003	6630028	08-Dec- 2000	09/733272	Granted	ORD	US	CONTROLLED ADHESIVE DISPENSING
23-Aug- 2011	8001742	16-Aug- 2006	11/505042	Granted	ORD	US	CONTOUR VALENCE CUP
17-Mar- 2009	7503090	24-Apr- 2007	11/789402	Granted	ORD	US	GLASS WASHING MACHINE WITH CONVEYOR AND BRUSH SPEED CONTROL
19-Jun-2007	7232493	11-Sep- 2003	10/661880	Granted	ORD	US	BRUSH SPEED CONTROL
29-Jun-2010	2,422,590	18-Mar- 2003	2422590	Granted	ORD	CA	BROKEN GLASS REMOVAL SYSTEM
		01-Aug- 2017	15/665625	Allowed	DIV	US	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	EPP	HU	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	EPP	PL	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	EPP	Ħ	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	EPP	GB	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	EPP	DE	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	EPP	CZ	AUTOMATED SPACER FRAME FABRICATION AND METHOD
30-Jan-2018	ZL201480027882.9	07-Mar- 2014	201480027882.9	Granted	PCT	2	AUTOMATED SPACER FRAME FABRICATION AND METHOD
08-May- 2019	2969287	07-Mar- 2014	14774860.2	Granted	PCT	ĘP	AUTOMATED SPACER FRAME FABRICATION AND METHOD
19-Sep- 2017	9765564	06-Mar- 2014	14/198706	Granted	ORD	US	AUTOMATED SPACER FRAME FABRICATION AND METHOD
		19-Jul- 2019	16/517069	Pending	CON	US	AUTOMATED SPACER FRAME FABRICATION
2019		2016					FABRICATION

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EFFICIENT ASSEMBLY OF TRIPLE PANE WINDOWS	EFFICIENT ASSEMBLY OF TRIPLE PANE WINDOWS	EFFICIENT ASSEMBLY OF MULTIPLE PANE WINDOWS	EFFICIENT ASSEMBLY OF INSULATING GLASS WINDOWS	INSULATING GLASS WINDOWS	EFFICIENT ASSEMBLY OF	EFFICIENT ASSEMBLY OF INSULATING GLASS WINDOWS	INSULATING GLASS WINDOWS	EFFICIENT ASSEMBLY OF	EFFICIENT ASSEMBLY OF	EFFICIENT ASSEMBLY OF INSULATING GLASS WINDOWS	METHOD		DESSICANT DISPENSING SYSTEM	DESSICANT DISPENSING SYSTEM	FABRICATION	WINDOW FRAME CORNER	CONVEYOR AND METHOD OF MANUFACTURE	MATERIAL	CONTROLLED DISPENSING OF	CONTROLLED DISPENSING OF MATERIA	MATERIAL DISPENSING OF	MATERIA	CONTROLLED DISPENSING OF	CONTROLLED DISPENSING OF MATERIA	MATERIA
CY OF TRIPLE	CY OF TRIPLE	CY OF MULTIPLE	WINDOWS	WINDOWS	Y OF	WINDOWS	WINDOWS	YOF	WINDOWS	WINDOWS	SYSTEM AND		SING SYSTEM	SING SYSTEM		RNER	THOD OF		ENSING OF	INSING OF	ENSING OF		NSING OF	ENSING OF	
EP	US	US	US		US	Ę	;	CA	CA	CA	S	2	US	CA		US	US		CA	US	H		GB	DE	
ORD	ORD	DIV	CON		DIV	PCT		DIV	ORD	DIV	ORD)	DIV	ORD		ORD	ORD		DIV	ORD	EPC		EPC	EPC	
Granted	Granted	Granted	Published		Published	Published		Published	Granted	Published	Granted		Granted	Granted		Granted	Published		Granted	Granted	Granted		Granted	Granted	
10161484.0	12/765064	15/210544	16/439051		15/361811	11875470.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3033930	2757725	2985280	11/1111146		12/609469	2500480		11/416304	16/254197		2826721	11/290271	04001483.9		04001483.9	602004031687.3	
29-Apr- 2010	22-Apr- 2010	14-Jul- 2016	12-Jun- 2019	2016	28-Nov-	20-Dec- 2011	2011	10-Nov-	10-Nov-	11-May- 2010	21-Apr- 2005	2009	30-Oct-	11-Mar- 2005	2006	02-May-	22-Jan- 2019	2004	16-Jan-	30-Nov- 2005	23-Jan- 2004	2004	23-Jan-	23-Jan- 2004	2004
2253791	8726487	10329832							2757725		72/3406		8474400	2,500,480		7448246			2826721	7429299	1475491		1475491	1475491	
01-Nov- 2017	20-May- 2014	25-Jun-2019						2017	02-Apr-		25-Sep- 2007	2	02-Jul-2013	15-Dec- 2009	2008	11-Nov-		2015	12-May-	30-Sep- 2008	09-Mar- 2011	2011	09-Mar-	09-Mar- 2011	2011

9352512	29-Mar-	13/433525	Granted	ORD	US	FLEXIBLE FILM HEATED ROLLER
9216565	30-Apr- 2013	13/873956	Granted	DIV	US	FLEXIBLE FILM APPLICATION FOR DECORATIVE COATINGS
318581	12-Aug- 2011	MX/A/2011/008568	Granted	ORD	MX	FLEXIBLE FILM APPLICATION FOR DECORATIVE COATINGS
8460489	13-Aug- 2010	12/855798	Granted	PRI	US	FLEXIBLE FILM APPLICATION FOR DECORATIVE COATINGS
2842274	10-Feb- 2006	2842274	Granted	DIV	CA	FLEXIBLE CLIP
	11-Nov- 2015	MX/A/2017/006484	Published	PCT	MX	FILE TRANSLATOR SYSTEM
	11-Nov- 2015	15861178.0	Published	PCT	EP	FILE TRANSLATOR SYSTEM
	11-Nov- 2015	2968234	Published	PCT	CA	FILE TRANSLATOR SYSTEM
10414051	10-Nov- 2015	14/937168	Granted	ORD	US	FILE TRANSLATOR SYSTEM
	12-Nov- 2018	62/758856	Pending	PRO	US	WEAR RESISTENT BELT
	22-Jan- 2018	62/620118	Pending	PRO	US	ENCODER SEALANT LINE WITH WEAR RESISTENT BELT
9416583	10-Apr- 2014	14/249776	Granted	DIV	US	PANE WINDOWS
8813337	09-Nov- 2011	13/292473	Granted	CIP	US	PANE WINDOWS
2703434	11-May- 2010	2703434	Granted	ORD	CA	PANE WINDOWS
2253791	29-Apr- 2010	10161484.0	Granted	EPC	PL	PANE WINDOWS
2253791	29-Apr- 2010	10161484.0	Granted	EPC	H	PANE WINDOWS
2253791	29-Apr- 2010	10161484.0	Granted	EPC	HU	PANE WINDOWS
2253791	29-Apr- 2010	10161484.0	Granted	EPC	GB	PANE WINDOWS
2253791	29-Apr- 2010	10161484.0	Granted	EPC	DE	PANE WINDOWS
2253791	29-Apr- 2010	10161484.0	Granted	EPC	CZ	EFFICIENT ASSEMBLY OF TRIPLE PANE WINDOWS

		03-May-	15/970451	Published	ORD	SO	INSULATING GLASS UNIT FINAL
		03-May- 2018		Pending	PCT	CA	INSULATING GLASS UNIT FINAL SEALING ASSEMBLY AND METHOD
		2018		,			SEALING ASSEMBLY AND METHOD
		03-May-	18794467.3	Pending	PCT	ΕP	INSULATING GLASS UNIT FINAL
30 - N	6068720	01-Jul- 1998	09/109026	Granted	ORD	US	METHOD OF MANUFACTURING INSULATING GLASS UNITS
	7980259	12-Apr- 2010	12/758210	Granted	DIV	US	GLASS WASHING MACHINE W/GLASS RE
	7727336	17-Apr- 2009	12/425611	Granted	DIV	US	GLASS WASHING MACHINE W/GLASS RE
12-N 2009	7531044	25-Oct- 2006	11/586159	Granted	ORD	US	GLASS WASHING MACHINE W/GLASS RE
11-N 2004	D489848	16-Oct- 2002	29/169219	Granted	DES	US	GLASS WASHING MACHINE
01-Dec- 2015	2476713	06-Aug- 2004	2476713	Granted	ORD	CA	GLASS PRODUCTION SEQUENCING
07-May- 2013	2467436	17-May- 2004	2467436	Granted	ORD	CA	GLASS OPTIMIZATION
17-Apr- 2007	7206656	12-May- 2004	10/844256	Granted	ORD	US	GLASS OPTIMIZATION
23-Jan-2007	7167767	05-Jan- 2004	10/751382	Granted	ORD	US	GLASS ON DEMAND SYSTEM
11-Oct- 2005	6954676	30-Dec- 2002	10/331264	Granted	ORD	US	WINDOW OR DOOR MANUFACTURING METHOD AND APPARATUS
07-Nov- 2016	343472	21-May- 2013	MX/A/2014/014271	Granted	PCT	MX	FLUID APPLICATION SYSTEM AND METHOD (TWINDEX)
		08-Nov- 2017	15/807120	Published	DIV	US	FLUID APPLICATION SYSTEM AND METHOD
26-Dec- 2017	9849701	01-Aug- 2016	15/225039	Granted	DIV	US	FLUID APPLICATION SYSTEM AND METHOD
		21-May- 2013	2874027	Published	PCT	CA	FLUID APPLICATION SYSTEM AND METHOD
		21-May- 2013	MX/A/2016/014511	Allowed	DIV	MX	FLUID APPLICATION SYSTEM AND METHOD
23-Aug- 2016	9421794	20-May- 2013	13/897565	Granted	ORD	US	FLUID APPLICATION SYSTEM AND METHOD
2016		2012					

METHOD & APPARATUS FOR PROCESSIN	METHOD & APPARATUS FOR PROCESSIN	MATERIAL DETECTION SYSTEM	LAMINATED MUNTIN BAR APPARATUS	LAMINATED MUNTIN BAR AND METHOD	INSULATING GLASS UNIT PLUG AND INSTALLATION METHOD	INSULATING GLASS UNIT PLUG AND INSTALLATION METHOD	INSULATING GLASS UNIT PLUG AND INSTALLATION METHOD	INSULATING GLASS UNIT FLUID EXCHANGE ASSEMBLY AND METHOD	INSULATING GLASS UNIT FLUID EXCHANGE ASSEMBLY AND METHOD	INSULATING GLASS UNIT FLUID EXCHANGE ASSEMBLY AND METHOD	INSULATING GLASS UNIT FLUID EXCHANGE ASSEMBLY AND METHOD	INSULATING GLASS UNIT FINAL SEALING ASSEMBLY AND METHOD	SEALING ASSEMBLY AND METHOD				
CA	CA	CA	MX	EP	WO	US	US	CA	WO	US	US	WO	Sn	EP	CA	WO	
DIV	PCT	PCT	PCT	PCT	ORD	ORD	ORD	ORD	ORD	ORD	PRO	ORD	ORD	PCT	PCT	ORD	
Granted	Granted	Published	Published	Published	Published	Granted	Granted	Granted	Published	Published	Pending	Published	Published	Pending	Pending	Published	
2723052	2475557	3032357	MX/A/2018/008728	17739041.6	US2017/013421	15/405954	10/693034	2368349	US2019/017764	16/273909	62/629785	US2018/044805	16/051966	18840277.0		US2018/030922	
26-Jun- 2003	26-Jun- 2003	13-Jan- 2017	13-Jan- 2017	13-Jan- 2017	13-Jan- 2017	13-Jan- 2017	24-Oct- 2003	17-Jan- 2002	13-Feb- 2019	12-Feb- 2019	13-Feb- 2018	01-Aug- 2018	01-Aug- 2018	01-Aug- 2018	01-Aug- 2018	03-May- 2018	2018
2723052	2475557					10156515	6912767	2368349									
24-Sep- 2013	15-Feb- 2011					18-Dec- 2018	05-Jul-2005	12-Jul-2005									

12-Mar-	2950407	12-May-	2950407	Allowed	PCT	CA	SPACER FRAME AND METHOD OF
28-Jun-2019	2692886	12-May- 2015	2017100466	Allowed	PCT	RU	SPACER FRAME AND METHOD OF MAKING SAME
30-Aug- 2016	9428953	04-May- 2015	14/703027	Granted	ORD	US	SPACER FRAME AND METHOD OF MAKING SAME
20-Aug- 2013	8512501	17-Jan- 2012	13/351450	Granted	CON	US	SMART OVEN
09-Sep- 2008	7422650	19-Apr- 2005	11/109437	Granted	DIV	US	SMART OVEN
09-Aug- 2005	6926782	27-Jun- 2002	10/183775	Granted	PRI	US	SMART OVEN
21-Aug- 2012	8250023	07-Mar- 2011	13/041501	Granted	DIV	US	WINDOW PROCESSING SYSTEM COMPRISING A CLEANING STATION WITH MULTIPLE CUTTING SURFACES
		11-Mar- 2008	08004504.0	Published	ORD	EP	PROFILE RECOGNITION & COMPENSATI
05-Apr- 2011	7921064	01 - Oct- 2007	11/865244	Granted	ORD	US	PROFILE RECOGNITION & COMPENSATI
04-Apr- 2006	2369548	25-Jan- 2002	2369548	Granted	ORD	CA	NOTCHED MUNTIN BARS HAVING TWO
23-Mar- 2004	6708384	11-Oct- 2001	09/975216	Granted	ORD	US	NOTCHED MUNTIN BARS HAVING TWO
		08-Feb- 2019	29/679711	Pending	DES	US	MUNTIN CROSS JOINER CLIP
		08-Feb- 2019	62/803135	Pending	PRO	US	MUNTIN CROSS JOINER CLIP
17-Sep- 2002	2284476	05-Oct- 1999	2284476	Granted	ORD	CA	MUNTIN CLIP
12-Jun-2001	6244012	20-Jan- 1999	09/233834	Granted	ORD	US	MUNTIN CLIP
27-May- 2014	2579978	28-Feb- 2007	2579978	Granted	ORD	CA	MUNTIN BAR CLIP & MUNTIN BAR
02-Oct- 2007	7275570	20-Aug- 2004	10/922745	Granted	ORD	US	MULTI-STATION DESSICANT DISPENSI
19-Nov- 2013	2665965	13-May- 2009	2665965	Granted	ORD	CA	MULTIPLE CONFIGURATION JOINER CLIP
13-Sep- 2011	8015763	02-Dec- 2008	12/326142	Granted	ORD	US	MULTIPLE CONFIGURATION JOINER CLIP

		29-Aug-	US2018/048482	Published	ORD	WO	THERMALLY EFFICIENT WINDOW
		26-Jan- 2018	15/8811114	Published	ORD	US	THERMALLY EFFICIENT WINDOW FRAME
		2019					ASSEMBLY AND LOCKING MEMBER
		07-Mar-	16/295869	Published	DIV	$^{ m CU}$	TACTILE SPACER FRAME
19-Nov- 2019	D86/103	18-Jun- 2018	29/653645	Granted	ענע	S	WINDOW SPACER FRANKE LOCKING MEMBER
		2017	201/22/12	2		110	ASSEMBLY AND LOCKING MEMBER
		29-Sep-	17857525.4	Published	PCT	EP	TACTILE SPACER FRAME
		2017					ASSEMBLY AND LOCKING MEMBER
		29-Sep-	3037812	Published	PCT	CA	TACTILE SPACER FRAME
		29-sep- 2017	US201//US4390	Published	QRU	8	ASSEMBLY AND LOCKING MEMBER
		20.5	1100017/05/2007	7-11:-1-1	Q _n	Oin	ASSEMBLY AND LUCKING MEMBER
		29-Sep-	2019113112	Pending	PCT	RU	TACTILE SPACER FRAME
2019		2017					ASSEMBLY AND LOCKING MEMBER
23-Apr-	10267083	29-Sep-	15/720892	Granted	ORD	sn	TACTILE SPACER FRAME
		19-Sep- 2017	MX/A/2019/003732	Published	PCT	MX	TACTILE SPACER FRAME ASSEMBLY AND LOCKING MEMBER
2006		1998					BA
14-Nov-	2228681	04-Feb-	2228681	Granted	ORD	CA	SYSTEM FOR FABRICATING MUNTIN
20-Jan-2004	6678938	08-Apr- 2003	10/409791	Granted	ORD	SN	SYSTEM FOR FABRICATING MUNTIN
2002		2000					
27-Aug-	6438819	15-Mar-	09/525349	Granted	ORD	$^{ m CO}$	SYSTEM FOR FABRICATING MUNTIN
20-Nov- 2003	6651304	20-Jun- 2002	10/101646	Granted	ÇRU	S	CONTOUR M
2007		2000				110	CONTOUR
27-Mar-	2310993	08-Jun-	2310993	Granted	ORD	CA	SYSTEM FOR FABRICATING
2005		2003					SHEET MATERIAL
26-Apr-	6883278	20-Aug-	10/644253	Granted	ORD	\mathbf{S}	SYSTEM FOR FABRICATING
		08-Nov- 2017	15/806962	Allowed	CON	SO	SPACER FRAME AND METHOD OF MAKING SAME
		2016					
11-Jun-2019	10316578	01-Aug-	15/224783	Allowed	DIV	US	SPACER FRAME AND METHOD OF
		12-May- 2015	15806949.2	Published	PCT	EP	SPACER FRAME AND METHOD OF MAKING SAME
2019		2015					MAKING SAME

WINDOW COMPONENT SCRAP EP REDUCTION EP	WINDOW COMPONENT SCRAP CA REDUCTION	WINDOW COMPONENT SCRAP CA REDUCTION	WINDOW COMPONENT SCRAP PL REDUCTION	REDUCTION IE				WINDOW COMPONENT SCRAP CZ REDUCTION CZ	REDUCTION EP	REDUCTION US	WINDOW COMPONENT INCLUDING US PUSHE	WINDOW CLEANING SYSTEM AND EP METHOD	WINDOW CLEANING SYSTEM AND CA METHOD	WINDOW CLEANING SYSTEM AND MX METHOD	WINDOW CLEANING SYSTEM AND US METHOD	TWO TONE POST LAMINATION US PROCESS	TWO TONE MUNTIN BAR US	LAMINATING PERFORMED MUNTIN US BARS	FRAME
ORD	ORD	ORD	EPC	FPC	EPC	EPC	EPC	EPC	ORD	ORD	ORD	PCT	PCT	PCT	ORD	ORD	ORD	ORD	
Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Published	Published	Pending	Allowed	Granted	Granted	Granted	
05108723.7	2520329	2520237	05108493.7	05108493.7	05108493./	05108493.7	05108493.7	05108493.7	05108493.7	11/085704	11/085769	14840338.9	2922130	MX/A/2016/002617	14/472963	10/133718	09/781630	10/754386	
21-Sep- 2005	21-Sep- 2005	19-Sep- 2005	15-Sep- 2005	13-Sep- 2005	13-Sep- 2005	15-Sep- 2005	15-Sep- 2005	15-Sep- 2005	15-Sep- 2005	21-Mar- 2005	21-Mar- 2005	29-Aug- 2014	29-Aug- 2014	29-Aug- 2014	29-Aug- 2014	26-Apr- 2002	12-Feb- 2001	09-Jan- 2004	2018
1643074	2520329	2520237	EP1643073	EP16430/3	EP16430/3	EP1643073	EP1643073	EP1643073	EP1643073	7802365	7866033					6745460	6687982	6889416	
04-Jan-2017	04-Jun-2013	25-Jun-2013	09-Nov- 2016	09-Nov- 2016	09-Nov- 2016	09-Nov- 2016	09-Nov- 2016	09-Nov- 2016	09-Nov- 2016	28-Sep- 2010	11-Jan-2011					08-Jun-2004	10-Feb- 2004	10-May- 2005	

12-Dec-	1642658	09-Sep-	05077052.8	Granted	EPC	CZ	WINDOW COMPONENT SYSTEM INC
12-Dec- 2007	1642658	09-Sep- 2005	05077052.8	Granted	ORD	EP	WINDOW COMPONENT SYSTEM INC PUSH
20-Nov- 2012	2507308	12-May- 2005	2507308	Granted	ORD	CA	WINDOW COMPONENT SYSTEM INC PUSH
08-Mar- 2011	7901526	25-Sep- 2008	12/237748	Granted	DIV	US	WINDOW COMPONENT STOCK TRANSFERRING
04-Nov- 2008	7445682	21-Mar- 2005	11/084929	Granted	ORD	US	WINDOW COMPONENT STOCK TRANSFERRING
15-Dec- 2015	9212515	14-Nov- 2014	14/541378	Granted	DIV	US	WINDOW COMPONENT STOCK INDEXING
09-Dec- 2014	8904611	30-Sep- 2011	13/249337	Granted	DIV	US	WINDOW COMPONENT STOCK INDEXING
15-Nov- 2011	8056234	07-Aug- 2009	12/537528	Granted	DIV	US	WINDOW COMPONENT STOCK INDEXING
18-Apr- 2017	2872219	02-Jun- 2005	2872219	Granted	DIV	CA	WINDOW COMPONENT STOCK INDEXING
17-Feb- 2015	2791859	02-Jun- 2005	2791859	Granted	DIV	CA	WINDOW COMPONENT STOCK INDEXING
08-Jan-2013	2509118	02-Jun- 2005	2509118	Granted	ORD	CA	WINDOW COMPONENT STOCK INDEXING
		24-May- 2005	05104390.9	Published	ORD	EP	WINDOW COMPONENT STOCK INDEXING
03-Nov- 2009	7610681	21-Mar- 2005	11/085711	Granted	ORD	US	WINDOW COMPONENT STOCK INDEXING
13-May- 2014	8720026	26-Aug- 2010	12/868817	Granted	DIV	US	WINDOW COMPONENT SCRAP REDUCTION
04-Jan-2017	1643074	21-Sep- 2005	05108723.7	Granted	EPC	PL	WINDOW COMPONENT SCRAP REDUCTION
04-Jan-2017	1643074	21-Sep- 2005	05108723.7	Granted	EPC	H	WINDOW COMPONENT SCRAP REDUCTION
04-Jan-2017	1643074	21-Sep- 2005	05108723.7	Granted	EPC	HU	WINDOW COMPONENT SCRAP REDUCTION
04-Jan-2017	1643074	21-Sep- 2005	05108723.7	Granted	EPC	GB	WINDOW COMPONENT SCRAP REDUCTION
04-Jan-2017	1643074	21-Sep- 2005	05108723.7	Granted	EPC	DE	WINDOW COMPONENT SCRAP REDUCTION
04-Jan-2017	1643074	21-Sep- 2005	05108723.7	Granted	EPC	CZ	WINDOW COMPONENT SCRAP REDUCTION

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WINDOW SPACER FRAME PUNCH ASSEMBLY	WINDOW SPACER FRAME LOCKING MEMBER	WINDOW SPACER FRAME CRIMPING ASSEMBLY	STAGING SYSTEM FOR AUTOMATED WINDOW OR DOOR FABRICATION	WINDOW COMPONENT SYSTEM INCLUDING PUSHER FOR SCRAP REMOVAL	WINDOW COMPONENT SYSTEM INCLUDING PUSHER FOR SCRAP REMOVAL	WINDOW COMPONENT SYSTEM INC PUSH	PUSH											
EP	CA	WO	US	US	WO	CA	MX	EP	US	US	CA	CA	ΙΕ	GB	PL	HU	DE	
PCT	PCT	ORD	ORD	DES	ORD	PCT	PCT	PCT	ORD	ORD	DIV	DIV	EPC	EPC	EPC	EPC	EPC	
Published	Published	Published	Granted	Granted	Published	Published	Published	Published	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	Granted	
16847285.0	2997554	US2016/051898	15/265382	29/579520	US2016/051931	2997559	MX/A/2018/003214	16847293.4	15/265119	11/775957	2875561	2789712	05077052.8	05077052.8	05077052.8	05077052.8	05077052.8	
15-Sep- 2016	15-Sep- 2016	15-Sep- 2016	14-Sep- 2016	30-Sep- 2016	15-Sep- 2016	15-Sep- 2016	15-Sep- 2016	15-Sep- 2016	14-Sep- 2016	11-Jul- 2007	12-May- 2005	12-May- 2005	09-Sep- 2005	09-Sep- 2005	09-Sep- 2005	09-Sep- 2005	09-Sep- 2005	2005
			10352090	D824747					10184290	7955458	2875561	2789712	1642658	1642658	1642658	1642658	1642658	
			16-Jul-2019	07-Aug- 2018					22-Jan-2019	07-Jun-2011	06-Sep- 2016	17-Mar- 2015	12-Dec- 2007	12-Dec- 2007	12-Dec- 2007	12-Dec- 2007	12-Dec- 2007	2007

WINDOW SPACER FRAME PUNCH MX PCT Published MX/A/2018/003213 15-Sep-	2016				ASSEMBLY
	15-Sep-	MX/A/2018/003213	PCT	MX	WINDOW SPACER FRAME PUNCH

Schedule B

Copyrights

Copyright	Registration No.	Registration Date
WinIG 5, version 5.00.43 and 67 other titles.	V9925D554	2015
Win1G 5, revision 5.0043 and 67 other titles.	V9925D555	2015
WinIG 5, version 5.00.43.	TX0007475322	2011
WinCut II software operational manual & 65 other	V3529D426	2005
titles.		
Wincut II software operational manual	TX5532951	10/31/2001
WinIG software	TX5421259	07/26/2001
Winframe II software operations manual	TX5420462	07/23/2001
ContourGrid system and WinContour software	TX5174728	03/27/2000
GED WinDelete	TX5169662	03/27/2000
Linear positioner and WinLP software	TX5169659	03/27/2000
Intergrid: Intergrid system and WinGrid II software operation manual	TX5125925	01/18/2000
Screen Frame machine and WinScreen software	TX5129356	01/14/2000
ContourGrid: Contour Grid system and WinContour software	TX5129355	04/14/2000
CIM Colonial muntin machine and WinGrid operation manual	TX5010054	1999
WinIG software	TX5101704	12/17/1999
GED WinCut II software	TX5100348	12/10/1999
WinFrame II software	TX5113966	01/06/2000
GED WinCut: version 1.08	TX5012461	07/06/1999
WinFrame: version 1.08	TX5014228	07/06/1999
InterGrid system and WinGrid II software	TX5012842	07/06/1999
GED WinCut II software	TX4977817	04/16/1999
WinFrame II software	TX4972548	04/16/1999
WinIG software	TX4972377	04/16/1999
WinDelete GED	TX4767053	04/17/1998
GED WinCut II software	TX4772581	04/08/1998
CIM colonial muntin machine and WinGrid operation manual	TX4769807	04/10/1998
InterGrid and WinGrid II	TX4775493	05/13/1998
GED WinCut	TX4752275	04/08/1998
WinFrame II	TX4745055	03/24/1998
WinIG version 2.00	TX4757483	04/06/1998
WinFrame II: version 4.00	TX4635959	09/18/1997
WinFrame II software operation manual	TX4550007	09/08/1997
WinFrame II software operation manual	TX4489157	02/24/1997
WinCut 1.05	TX4524767	04/08/1997

Copyright	Registration No.	Registration Date
WinCut 1.05	TX4533097	04/09/1997
WinFrame 1.05	TX4523126	04/07/1997
WinFrame software operation manual	TX4270017	02/24/1997
WinGrid 1.05	TX4507975	04/08/1997
WinIG: version 1.05	TX4498710	02/19/1997
CIM colonial muntin machine and WinGrid operation manual	TX4498205	02/24/1997
GED WinCut: version 1.05	TX4486382	02/19/1997
CIM colonial muntin machine and WinGrid operation manual	TX4423051	08/01/1996
WinFrame software operation manual	TX4356053	08/22/1996
WinFrame software: version 1.01 : operation manual	TX4360204	08/22/1996
WinLP	TX4358819	08/23/1996
WinLP 1.00	TX4358818	08/23/1996
WinCut software operation manual	TX4355335	08/12/1996
WinCut software operation manual	TX4355334	08/12/1996
WinCut software operation manual	TX4355333	08/12/1996
WinLP software operation manual, version 1.00	TX4352166	08/23/1996
WinFrame software operation manual version 1.03	TX4360132	08/22/1996
WinFrame, 1.03	TX4355497	08/22/1996
WinFr 1.00	TX4355496	08/22/1996
WinFrame	TX4355495	08/22/1996
WinFrame 1.02	TX4355488	08/22/1996
WinIG 1.01.00	TX4347308	07/29/1996
WinIG software operation manual version 1.01	TX4347307	07/29/1996
WinIG 1.02.00	TX4340537	07/29/1996
WinDelete version 0.00.11	TX4337339	08/01/1996
WinCut: 1.03.03	TX4350168	08/12/1996
WinCut	TX4350167	08/12/1996
WinCut 1.02.00	TX4345760	08/12/1996
WinCut 1.03.00	TX4345759	08/12/1996
WinDelete software	TX4340812	08/01/1996
WinGrid	TX4340804	08/01/1996
WinCut	TX4340327	08/12/1996
WinCut	TX4340326	08/12/1996
WinIG software operation manual	TX4334682	07/29/1996
WinIG	TX4334646	07/29/1996
WinIG software operation manual	TX4334645	07/29/1996

Schedule C

Patent and Copyright Licenses

- 1. Joint Business Agreement, dated as of May 28, 1991, between Vitro Flat Glass LLC ("Vitro") as successor-in-interest to PPG Industries, Inc. and GED, as amended by:
 - a. Amendment to Joint Business Agreement dated March 17, 2000;
 - b. Second Amendment to Joint Business Agreement dated February 1, 2005;
 - c. Third Amendment to Joint Business Agreement dated April 3, 2007;
 - d. Fourth Amendment to Joint Business Agreement dated March 20, 2013;
 - e. Fifth Amendment to Joint Business Agreement dated June 23, 2014
 - f. Sixth Amendment to Joint Business Agreement dated February 24, 2020 (collectively, the "Vitro Joint Business Agreement").
- 2. Amended and Restated License Agreement, dated as of July 1, 2019, between Ashland Hardware, LLC and GED (the "Ashland License")
- 3. Marketing Collaboration Agreement, dated as of April 1, 2014, between Ashland Hardware, LLC (f/k/a Nova Wildcat Ashland, LLC) and GED, as amended by First Amendment to Marketing Collaboration Agreement dated May 31, 2019 (the "Ashland Marketing Collaboration Agreement").
- 4. Product Development Agreement, dated as of March 18, 2019, between Technoform Glass Insulation North America, Inc. and GED (the "Technoform Agreement")
- 5. Software License Agreement dated August 5, 2015 between GED Integrated Solutions, Inc. and PPG Industries, Inc.

Schedule D

<u>Trademarks, Service Marks</u>

Trademark	Country	Status	Application No.	Filing Date	Registration No.	Registration Date
GED	US	Renewed	75/027028	04-Dec- 1995	2008673	15-Oct-1996
GED	CA	Renewed	884968	20-Jul-1998	521285	11-Jan-2000
GED	EM	Renewed	004356887	24-Mar- 2005	004356887	04-Aug-2006
GED	CN	Registered	6597089	14-Mar- 2008	6597089	28-Mar-2010
GED	CN	Registered	6597101	14-Mar- 2008	6597101	28-Mar-2010
GED	CN	Registered	6597091	14-Mar- 2008	6597091	07-Apr-2010
GED (Stylized)	US	Renewed	76/619212	03-Nov- 2004	3220426	20-Mar-2007
GED IN CA	CA	Registered	1251473		TMA710937	03-Apr-2008
GED INTEGRATED SOLUTIONS	US	Renewed	76/619211	03-Nov- 2004	3220425	20-Mar-2007
GED INTEGRATED SOLUTIONS	EM	Renewed	004357547	24-Mar- 2005	004357547	03-Aug-2006
GED INTEGRATED SOLUTIONS	CN	Registered	6597092	14-Mar- 2008	6597092	07-Apr-2010
GED INTEGRATED SOLUTIONS IN CA	CA	Registered	1251475		TMA710936	03-Apr-2008
GEDINTEGRATEDSOLUTIONS	CN	Registered	6597094	14-Mar- 2008	6597094	28-Mar-2010
GEDUSA	US	Renewed	75/242154	14-Feb- 1997	2206474	01-Dec-1998
GEDUSA	CA	Renewed	892785	07-Oct- 1998	519853	25-Nov-1999
GEDUSA	CN	Registered	6597100	14-Mar- 2008	6597100	07-Aug-2010
INTERGRID	US	Renewed	75/431272	09-Feb- 1998	2238727	13-Apr-1999
INTERGRID	CA	Renewed	0883988	10-Jul-1998	TMA545592	25-May-2001
INTERGRID	CN	Registered	6597099	14-Mar- 2008	6597099	28-Mar-2010
LEAN NET	CA	Registered	1132680	01-Mar- 2002	633648	24-Feb-2005
LEANNET	US	Renewed	76/319698	01-Oct- 2001	2757073	26-Aug-2003
RC-2000	EM	Registered	015019763	20-Jan- 2016	015019763	13-May-2016
REMAKE NOW	US	Renewed	76/203588	30-Jan- 2001	2863983	20-Jul-2004
REMAKENOW	CN	Registered	6597095	14-Mar- 2008	6597095	07-May-2010

ROBOCLEAN	US	Registered	76/715184	16-Oct- 2013	4696110	03-Mar-2015
ROBOFLOW	US	Allowed	87/528903	14-Jul-2017	5692627	05-Mar-2019
THINPLATE	US	Registered	76/703999	03-Aug- 2010	4060218	22-Nov-2011
WIN IG	US	Renewed	74/693245	22-Jun- 1995	1976701	28-May-1996
WIN IG	CA	Renewed	0890352	10-Sep- 1998	TMA538370	06-Dec-2000
WIN SYSTEM 1	CA	Renewed	0892211	02-Oct- 1998	TMA536922	08-Nov-2000
WINFRAME	US	Renewed	75/338463	11-Aug- 1997	2252590	15-Jun-1999
WINFRAME	CA	Renewed	896060	10-Nov- 1998	528242	24-May-2000
WINGRID	US	Renewed	75/378251	23-Oct- 1997	2268322	10-Aug-1999
WINGRID	CA	Renewed	1004390	05-Feb- 1999	535924	26-Oct-2000
WINGRID	CN	Registered	6597098	14-Mar- 2008	6597098	07-May-2010

Domain Names:

- a. gedusa.com
- b. geduk.com
- c. gedeurope.com
- d. gedasiapac.com
- e. geddigital.com
- f. geddigital.net
- g. interceptultra.com
- h. sampsonautomation.com
- i. twindex.co
- j. twindex.info
- k. twindex.us.com
- 1. twindexprinter.com
- m. ultrapsacer.com
- n. ultraspacer.net
- o. interceptinside.com
- p. sampsonautonation.com

Schedule E <u>Trademark Licenses</u>

None.

SPECIAL POWER OF ATTORNEY (Patent, Trademark, Copyright and License)

STATE OF)
) SS
COUNTY OF)

KNOW ALL MEN BY THESE PRESENTS, that GED Purchaser, Inc., a Delaware corporation ("Holdings"), GED Integrated Holdings, Inc., a Delaware corporation ("Intermediate Holdings"), and GED Integrated Solutions, Inc., a Delaware corporation ("Borrower"; Holdings, Intermediate Holdings and Borrower are referred to herein, collectively, as "Obligors" and, individually, as an "Obligor"), pursuant to that certain Patent, Copyright, License and Trademark Security Agreement, dated as of March 4, 2020 (the "Collateral Agreement") among Obligors and TCF National Bank ("Lender"), each hereby appoints and constitutes Lender its true and lawful attorney, with full power of substitution, and with full power and authority to perform the following acts on behalf of such Obligor at and during the time periods specified in the Collateral Agreement:

- 1. Assigning, selling or otherwise disposing of all right, title and interest of such Obligor in and to the patents, copyrights, licenses and trademarks listed on Schedules A, B, C, D and E of the Collateral Agreement, and including those patents copyrights and licenses which are added to the same subsequent hereto, and all registrations and recordings thereof, and all pending applications therefor, and for the purpose of the recording, registering and filing of, or accomplishing any other formality with respect to, the foregoing, and to execute and deliver any and all agreements, documents, instruments of assignment or other writings necessary or advisable to effect such purpose; and
- 2. To execute any and all documents, statements, certificates or other writings necessary or advisable in order to effect the purposes described above as Lender may in its sole discretion determine.

[signatures appear on next page]

This power of attorney is made pursuant to that certain Credit Agreement, dated as of March 4, 2020, among the Obligors and the Lender and may not be revoked until the payment in full of all liabilities and obligations of the Obligors under such Credit Agreement.

GED PURCHASER, INC.

Name: William Weaver

Title: President

GED INTEGRATED HOLDINGS, INC.

Name: William Weaver

Name: William Weaver Title: President

GED INTEGRATED SOLUTIONS, INC.

Name: William Weaver

Title: President

TRADEMARK REEL: 006882 FRAME: 0454

RECORDED: 03/04/2020