

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM488875

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT OF THE ENTIRE INTEREST AND THE GOODWILL		
<b>SEQUENCE:</b>	1		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
A.P. Green Industries, Inc.		12/31/2015	Corporation: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	A.P. Green Refractories, Inc.		
<b>Street Address:</b>	1305 CHERRINGTON PARKWAY, STE 100		
<b>City:</b>	MOON TOWNSHIP		
<b>State/Country:</b>	PENNSYLVANIA		
<b>Postal Code:</b>	15108		
<b>Entity Type:</b>	Corporation: DELAWARE		
<b>PROPERTY NUMBERS Total: 2</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	3596164	SENTINEL	
<b>Registration Number:</b>	0364858	KAST-O-LITE	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	4406841095		
<i>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.</i>			
<b>Phone:</b>	4406841090		
<b>Email:</b>	mkusner@kusnerjaffe.com, emorlan@kusnerjaffe.com		
<b>Correspondent Name:</b>	MARK KUSNER / KUSNER & JAFFE		
<b>Address Line 1:</b>	6150 PARKLAND BOULEVARD, SUITE 105		
<b>Address Line 2:</b>	PARAGON CENTER II		
<b>Address Line 4:</b>	MAYFIELD HEIGHTS, OHIO 44124		
<b>NAME OF SUBMITTER:</b>	MARK KUSNER		
<b>SIGNATURE:</b>	/mark kusner/		
<b>DATE SIGNED:</b>	09/06/2018		
<b>Total Attachments: 6</b>			
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## ASSIGNMENT OF TRADEMARK PROPERTIES

This Assignment of Trademark Properties (this "*Assignment*") is entered into as of December 31, 2015 at 6:56 p.m. EST, by and among A.P. Green Industries, Inc., a Delaware corporation ("*Assignor*"), and A.P. Green Refractories, Inc., a Delaware corporation ("*Assignee*").

WHEREAS, the parties have entered into that certain Contribution Agreement by and between Assignor and Assignee, dated as of December 31, 2015 (the "*Contribution Agreement*"), pursuant to which Assignor will contribute certain assets to Assignee in connection with the Legal Entity Rationalization Plan adopted by the Board of Directors of the parties' parent, HarbisonWalker International, Inc., on December 15, 2015 (the "*Plan*"); and

WHEREAS, pursuant to the Contribution Agreement, Assignor desires to assign the trademarks and trademark registrations described in Schedule A attached hereto, together with any and all goodwill associated therewith (the "*Trademark Properties*") to Assignee.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, intending to be legally bound, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby sells, assigns, transfers and conveys to Assignee, its successors, assigns and legal representatives, Assignor's entire right, title, interest in and to the Trademark Properties in the United States and in any and all foreign countries and to any and all applications for registration and registrations therefor, together with the goodwill of Assignor's business associated with the Trademark Properties, and any common law rights, together with all claims by Assignor for damages or other relief, both at law and equity, by reason of past infringement of the Trademark Properties, with the right to sue for and collect the same for its own use.

Assignor agrees that upon the request of Assignee (or its assigns) Assignor will promptly provide Assignee (or its assigns) with all pertinent facts and documents relating to the Trademark Properties as may be known and accessible to Assignor and Assignor will testify as to the same in any proceeding or litigation related thereto and will promptly execute and deliver to Assignee or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and perfect such rights, title, and interest in Assignee, its successors, assigns and legal representatives for the Trademark Properties which may be necessary or desirable to carry out the purposes hereof. Any and all reasonable expenses incurred by Assignor in connection with its obligations under this paragraph shall be paid by Assignee (or its assigns).

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Assignors and Assignee have caused this Assignment to be executed by their respective officers or representatives thereunto duly authorized as of the date first written above.

**ASSIGNOR:**

**A.P. Green Industries, Inc.**

By: Jessica L. Nock

Name: Jessica L. Nock

Title: Vice President - Rationalization

**ASSIGNEE:**

**A.P. Green Refractories, Inc.**

By: Jessica L. Nock

Name: Jessica L. Nock

Title: Vice President - Rationalization

**SCHEDULE A**

**TRADEMARK PROPERTIES**

<b>Registration Number</b>	<b>Application Numbers</b>	<b>Associated Mark</b>
	86/501691	HWI HARBISONWALKER INTERNATIONAL (horizontal)
	86/501699	HWI HARBISONWALKER INTERNATIONAL (vertical)
3193301	78/818792	ANH
2809505	78/185673	ANH REFRACTORIES
723467	72/111096	ALTEX
3193303	78/818823	APG
2860046	78/197993	APGREEN & design
534889	71/555869	ARCO
819752	72/238075	BRIK-CAST
388629	71/440651	CLIPPER
3640837	77/435984	DV-38
510415	71/553277	EMPIRE

<b>Registration Number</b>	<b>Application Numbers</b>	<b>Associated Mark</b>
1831349	74/388063	EXPRESS
841898	72/277757	FUSECRETE
730277	72/118989	GREEN
3640845	77/436487	GREENAL
600884	71/652189	GREENCAST
3640840	77/436427	GREENGUN
3644607	77/436439	GREENKLEEN
857768	72/285921	GREENLITE
3640836	77/435961	GREENPAK
1818969	74/369846	GREENSET
1349405	73/491602	GREFCON
869601	72/310280	GREFCOTE
829662	72/248696	GREFMAG

<b>Registration Number</b>	<b>Application Numbers</b>	<b>Associated Mark</b>
1123296	73/191912	GREFPATCH
1088739	73/137695	GREFVIBE
3805555	77/722712	INSBLOK
1844445	74/378780	INSWOOL
364858	71/411410	KAST-O-LITE
183374	71/188204	KRUZITE
611665	71/672952	KS-4
438285	71/520029	KX-99
3640841	77/436434	LO-ABRADE
3640842	77/436455	MC-25
181425	71/185337	MEXI-KOMO
171610	71/173488	MIZZOU
3189513	78/838741	PLASTECH

<b>Registration Number</b>	<b>Application Numbers</b>	<b>Associated Mark</b>
3596164	77/373294	SENTINEL
561015	71/596339	SUPER HYBOND
4383417	85/796049	SUPER KAST-SET
3640844	77/436471	ULTRA-EXPRESS
3640843	77/436463	ULTRA-GREEN
1430260	73/602474	UNACAST