UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of

CERTAIN ARTIFICIAL EYELASH EXTENSION SYSTEMS, PRODUCTS, AND COMPONENTS THEREOF

Inv. No. 337-TA-1226

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND

Chief Administrative Law Judge Charles E. Bullock

(October 28, 2021)

Appearances:

For Complainant Lashify, Inc.:

Saina S. Shamilov, Esq. of Fenwick & West LLP from Mountain View, CA

Bryan A. Kohm, Esq. of Fenwick & West LLP from San Francisco, CA

Paul M. Bartkowski, Esq.; and Thomas R. Burns, Esq. of Bartkowski PLLC from McLean, VA

For Respondents KISS Nail Products, Inc.; Ulta Salon, Cosmetics & Fragrance, Inc.; Walmart, Inc.; and CVS Pharmacy, Inc.:

Peter Kang, Esq. of Baker Botts LLP from Palo Alto, CA

Theodore W. Chandler, Esq. of Baker Botts LLP from San Francisco, CA

Lisa M. Kattan, Esq.; Samuel L. Kassa, Esq.; Thomas C. Martin, Esq.; and Matthew M. Welch, Esq. of Baker Botts LLP from Washington, D.C.

For Respondents Qingdao Hollyren Cosmetics Co. Ltd., d/b/a Hollyren; Qingdao Xizi International Trading Co., Ltd., d/b/a Xizi Lashes; and Qingdao Lashbeauty Cosmetic Co., Ltd., d/b/a Worldbeauty:

Matthew Bathon, Esq.; Li Gou, Esq.; and Hui Shen, Esq. of Steptoe & Johnson LLP from Washington, D.C.

For Respondents Alicia Zeng d/b/a Lilac St., and Artemis Family Beginnings, Inc.:

Jason R. Bartlett, Esq. of Mauriel Kapouytian Woods LLP from San Francisco, CA

For the Office of Unfair Import Investigations:

Jeffrey T. Hsu, Esq.; and John Shin, Esq. of the U.S. International Trade Commission from Washington, D.C.

LIST OF ABBREVIATIONS

The following abbreviations may be used in this Initial Determination:

CDX	Complainant's demonstrative exhibit	
CPX	Complainant's physical exhibit	
CX	Complainant's exhibit	
CIB ¹	Complainant's initial post-hearing brief	
CRB	Complainant's reply post-hearing brief	
СРНВ	Complainant's pre-hearing brief	
Dep.	Deposition	
JX	Joint Exhibit	
RDX	Respondents' demonstrative exhibit	
RPX	Respondents' physical exhibit	
RX	X Respondents' exhibit	
RIB	Respondents' initial post-hearing brief	
RRB	Respondents' reply post-hearing brief	
RPHB	Respondents' pre-hearing brief	
Tr.	Transcript	
RLUL	Respondents' List of Undisputed Limitations	
CLUL	Complainant's List of Undisputed Limitations	

-

¹ On August 10, 2021, Complainant Lashify, Inc. was directed to submit revised post-hearing briefs because it had used a different font style than that of Respondents and the Commission Investigative Staff. *See* Order No. 65. Lashify submitted revised briefs on August 12, 2021. In the letter accompanying its submission, Lashify noted: "Due to that font change, the pagination and spacing of the briefs resulted in both briefs exceeding the specified page limits." EDIS Doc ID 749493. Lashify further stated: "To the extent the CALJ determines that Lashify's briefs no longer comply with the Ground Rules, the Commission Rules, and/or the CALJ's specified page limits, and to the extent Order No. 65 also contemplates that Lashify was required to revise the briefs to comply with the page limits set forth by the CALJ, Lashify hereby submits revised versions of its opening post-trial brief and reply post-trial brief as Exhibits C and D, respectively." *Id.* For purposes of this Initial Determination, any citations and/or references to Lashify's post-hearing briefs are to the aforementioned Exhibits C and D.

SIB	The Commission Investigative Staff's initial post-hearing brief	
SRB	The Commission Investigative Staff's reply post-hearing brief	

TABLE OF CONTENTS

I.	IN	ΓRO	ODUCTION	1 -
	A.	Pro	ocedural History	1 -
	B.	The	e Private Parties	2 -
		1.	Complainant Lashify, Inc.	2 -
		2.	The Respondents	3 -
			a) The KISS Respondents	3 -
			i) KISS Nail Products, Inc.	3 -
			ii) Ulta Salon, Cosmetics & Fragrance, Inc	3 -
			iii) Walmart, Inc.	3 -
			iv) CVS Pharmacy, Inc	3 -
			b) Qingdao Hollyren Cosmetics Co., Ltd. d/b/a Hollyren	4-
			c) Qingdao Xizi International Trading Co., Ltd	4-
			d) Qingdao LashBeauty Cosmetic Co., Ltd. d/b/a Worldbeauty	4-
			e) Alicia Zeng, Lilac St., and Artemis Family Beginnings, Inc	5 -
	C.	Ove	verview of the Technology	5 -
	D.	Pro	oducts at Issue	6 -
		1.	The Accused Products	6 -
			a) KISS Respondents	6 -
			b) Worldbeauty	6 -
			c) Hollyren	7 -
			d) Lilac	7 -
		2.	The Domestic Industry Products	7 -
II.	IM	POR	RTATION	7 -
III.	JU	RISI	DICTION	8 -
IV.	RE	LEV	VANT LAW	8 -
	A.	Infr	ringement – Utility Patent	8 -
		1.	Literal Infringement	8 -
		2.	Indirect Infringement	8 -
			a) Induced Infringement	9 -
	B.	Infr	ringement – Design Patent	9 -
		1.	Claim Construction	10 -

	C.	Va	lidity	y		10 -
		1.	35 I	U.S.C	C. § 103 (Obviousness)	10 -
		2.	35 I	U.S.C	C. § 112 (Written Description)	12 -
		3.	35 I	U.S.C	C. § 112 (Enablement)	12 -
	D.	Do	mest	tic In	dustry	13 -
		1.	Eco	nom	ic Prong	13 -
		2.	Tec	hnic	al Prong	14 -
V.	U.S	S. P	ATE	NT I	NO. 10,721,984	15 -
	A.	Ov	ervie	ew		15 -
		1.	Ass	ertec	l Claims	15 -
		2.	Cla	im C	onstruction	17 -
	B.	Inf	ringe	emen	ıt	17 -
		1.	KIS	SS A	ecused Products	17 -
			a)	Clair	m 1	17 -
				i)	"heat fused" (Limitations 1[a] and 1[b])	18 -
				ii)	"cluster"; "first base"; "second base"; "the first and the second included in a common base"; "spaced apart"	
				iii)	Conclusion	34 -
			b)	Clair	m 23	34 -
			c)	Clair	ms 9 and 27	34 -
		2.	Hol	lyrer	Accused Products	35 -
			a)	Clair	m 1	35 -
				i)	"heat fused" (Limitations 1[a] and 1[b])	35 -
				ii)	"cluster"; "first base"; "second base"; "the first and the second included in a common base"; "spaced apart"	
				iii)	Conclusion	45 -
			b)	Clair	ms 23 and 28	45 -
			c)	Clair	ms 9, 13, and 27	45 -
		3.	Wo	rldbe	eauty Glue-Based Accused Products	46 -
			a)	Clair	m 1	46 -
				i)	"heat fused" (Limitations 1[a] and 1[b])	46 -
				ii)	Conclusion	54 -
			b)	Clair	ms 23 and 28	54 -
			c)	Clair	ms 9. 13. and 27	55 -

	4.	Wo	orldbeauty Heat-Bonded Accused Products 55 -		
		a)	Clai	m 1	- 55 -
			i)	"first cluster" and "second cluster" (Limitations 1[a]-[e])	- 55 -
			ii)	The Remaining Limitations	- 58 -
			iii)	Conclusion	- 59 -
		b)	Clair	m 9	- 60 -
		c)	Clai	m 13	- 60 -
		d)	Clai	m 23	- 61 -
		e)	Clai	m 27	- 62 -
		f)	Clai	m 28	- 62 -
	5.	Lil	ac Ac	ccused Products	- 63 -
		a)	Clai	ms 1, 23, and 27	- 63 -
		b)	Indu	iced Infringement	- 63 -
C.	Te	chni	ical P	Prong of the Domestic Industry Requirement	- 64 -
	1.	Cla	aim 1		- 64 -
		a)	"hea	at fused" (Limitations 1[a] and 1[b])	- 65 -
		b)	Con	clusion	- 75 -
	2.	Cla	aims 2	23 and 28	- 75 -
	3.	Cla	aims 9	9, 13, and 27	- 75 -
D.	Va	lidit	ty		- 75 -
	1.	Ob	vious	sness [,]	- 76 -
		a)	Cho	e	- 76 -
			i)	Claim 1: "first cluster" and "second cluster"	- 76 -
			ii)	Choe in combination with Ahn, the Quattro product, B or Masters	
			iii)	Choe in combination with Nakamura	- 81 -
			iv)	Claims 9, 23, and 27	- 82 -
		b)	Naka	amura	- 82 -
			i)	Claim 1: "first cluster" and "second cluster"	- 82 -
			ii)	Nakamura in combination with Ahn, the Quattro product, B or Masters	•
			iii)	Claims 9, 23, and 27	- 86 -
		c)	Con	clusion	- 87 -
		d)	Seco	ondary Considerations	- 87 -
	2.	En	ablen	nent and Written Description	- 87 -

VI.	U.S	S. DESIGN PATENT NO. D867,664	92 -
	A.	Overview	92 -
	B.	Infringement	95 -
	C.	Technical Prong of the Domestic Industry Requirement	99 -
	D.	Validity	102 -
VII.		S. DESIGN PATENT NO. D877,416	
		Overview	
		Infringement	
		Technical Prong of the Domestic Industry Requirement	
	D.	Validity	116 -
VIII	. EC	ONOMIC PRONG OF THE DOMESTIC INDUSTRY REQUIREMENT .	117 -
	A.	Articles Protected by the Patent	117 -
		1. '984 Patent	117 -
		2. The D'416 and D'664 Patents	123 -
	B.	Sales and Marketing Expenditures	123 -
	C.	Plant and Equipment	125 -
		1. Warehousing/Distribution Costs	128 -
		2. Quality Control	129 -
		3. Sales and Marketing	130 -
		4. Personal Use	131 -
		5. Conclusion	131 -
	D.	Labor and Capital	132 -
		1. Labor	133 -
		2. Capital	133 -
		3. Conclusion	135 -
	E.	Research and Development	
		1. Nexus	136 -
		2. Plant and Equipment	137 -
		3. Labor	
		4. Capital	139 -
		5. Conclusion	140 -
	F.	Conclusion on Economic Prong	141 -

IX.	CONCLUSIONS OF LAW	141 -
X.	RECOMMENDED DETERMINATION ON REMEDY	142 -
	A. General Exclusion Order	142 -
	Circumvention of a Limited Exclusion Order	143 -
	2. Widespread Pattern of Unauthorized Use	145 -
	3. Conclusion	147 -
	B. Limited Exclusion Order	147 -
	C. Cease and Desist Order	147 -
	D. Bonding	151 -
XI.	INITIAL DETERMINATION	153 -

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of

CERTAIN ARTIFICIAL EYELASH EXTENSION SYSTEMS, PRODUCTS, AND COMPONENTS THEREOF

Inv. No. 337-TA-1226

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND

Chief Administrative Law Judge Charles E. Bullock

(October 28, 2021)

Pursuant to the Notice of Investigation, this is the final Initial Determination in the Matter of Certain Artificial Eyelash Extension Systems, Products, and Components Thereof, Investigation No. 337-TA-1226.

For the reasons stated herein, the undersigned has determined that no violation of section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain artificial eyelash extension systems, products, and components thereof alleged to infringe U.S. Patent No. 10,721,984 and U.S. Design Patent Nos. D877,416 and D867,664.

I. INTRODUCTION

A. Procedural History

Complainant Lashify, Inc. ("Lashify") filed a complaint on September 10, 2020. 85 Fed. Reg. 68,366-367 (Oct. 28, 2020). The complaint alleged violations of section 337 based on the importation and sale of certain artificial eyelash extension systems, products, and components thereof that purportedly infringe U.S. Patent No. 10,660,388 ("the '388 patent"); U.S. Patent No. 10,721,984 ("the '984 patent"); U.S. Design Patent No. D877,416 ("the D'416 patent"); and U.S. Patent No. D867,664 ("the D'664 patent"). *Id.* The Commission voted to institute this Investigation on October 23, 2020 and the Notice of Institution ("NOI") was published on October 28, 2020. *Id.* The NOI named the following entities as Respondents: KISS Nail Products, Inc. ("KISS"); Ulta Beauty, Inc; CVS Health Corporation; Walmart, Inc. ("Walmart"); Qingdao Hollyren Cosmetics Co., Ltd. d/b/a Hollyren ("Hollyren"); Qingdao Xizi International Trading Co., Ltd. d/b/a Xizi Lashes ("Xizi Lashes"); Qingdao LashBeauty Cosmetic Co., Ltd. d/b/a Worldbeauty ("Worldbeauty"); Alicia Zeng d/b/a Lilac St. and Artemis Family Beginnings, Inc. (collectively, "Lilac"); and Rachael Gleason d/b/a Avant Garde Beauty Co. *Id.* The Office of Unfair Import Investigations ("Staff") is also a party to the Investigation. *Id.*

On January 22, 2021, the undesigned granted Lashify's motion for leave to amend the complaint and NOI to substitute CVS Pharmacy, Inc. ("CVS") in place of named Respondent CVS Health Corporation and Ulta Salon, Cosmetics & Fragrance, Inc. ("Ulta") in place of named Respondent Ulta Beauty, Inc. Order No. 10, *not reviewed* by Comm'n Notice (Feb. 10, 2021); *see also* 86 Fed. Reg. 9535 (Feb. 16, 2021).

On April 23, 2021, claims 2-4 and 7 of the '388 patent and claims 6-8, 12, 18-19, 25-26, and 29 of the '984 patent were terminated from the Investigation. *See* Order No. 24, *not reviewed* by Comm'n Notice (May 11, 2021).

On May 6, 2021, Rachael Gleason d/b/a Avant Garde Beauty Company was terminated from the Investigation based on a Consent Order Stipulation and a Proposed Consent Order. *See* Order No. 28, *not reviewed* by Comm'n Notice (May 20, 2021).

On June 9, 2021, the undersigned granted-in-part the KISS Respondents' Motion for Summary Determination of No Domestic Industry. *See* Order No. 35. Specifically, the undersigned found that Lashify had failed to satisfy the technical prong of the domestic industry for the '388 patent. *Id.* at 9. The Commission determined not to review the Initial Determination on July 9, 2021. *See* EDIS Doc. ID 746362.

Prior to the hearing, claims 2-5, 10-11, 14, 17, 21-22, and 24 of the '984 patent were terminated from the Investigation. *See* Order No. 38 (June 22, 2021), *not reviewed* by Comm'n Notice (July 6, 2021).

The evidentiary hearing was held July 12–15, 2021.

B. The Private Parties

1. Complainant Lashify, Inc.

Lashify, Inc. is a corporation organized and existing under the laws of Delaware with its principal place of business at 11437 Chandler Boulevard, Suite A, Glendale, California 91601. Compl. at ¶ 11.

¹ KISS, Ulta, Walmart, and CVS are collectively referred to as the "KISS Respondents."

2. The Respondents

1914C.0107-0109.

a) The KISS Respondents

i) KISS Nail Products, Inc.

KISS is a New York corporation with its principal place of business at 25 Harbor Park Drive, Port Washington, NY 11050. RIB at 3; Compl. at ¶ 19. KISS sells the KISS Accused Products

Compl. at ¶ 19; CX-2660.0007-.0008; CX-

ii) Ulta Salon, Cosmetics & Fragrance, Inc.

Ulta Beauty, Inc. is a company organized under the laws of Delaware, having a place of business at 1000 Remington Boulevard, Suite 120, Bolingbrook, Illinois 60440. Compl. at ¶ 21. Ulta Beauty, Inc. is a holding company that includes Ulta Salon, Cosmetics & Fragrance, Inc. *Id.* at ¶ 22. Ulta operates a chain of retail beauty stores throughout the U.S., offering cosmetics and salon services. CIB at 16-17; *see also* Compl. Ex. 22. Ulta is a reseller of the KISS Accused Products. CIB at 17; RIB at 3; Compl. at ¶ 22

iii) Walmart, Inc.

Walmart, Inc. is a corporation organized under the laws of Delaware, with its headquarters at 702 SW 8th Street, Bentonville, AR 72716. Compl. at ¶ 23. Walmart is a reseller of the KISS Accused Products. CIB at 17; RIB at 3; Compl. at ¶ 24.

iv) CVS Pharmacy, Inc.

CVS Health Corporation is organized under the laws of Rhode Island, with its headquarters at One CVS Drive, Woonsocket, RI 02895. Compl. at ¶ 25. CVS Health Corporation is a holding company with no business operations. EDIS Doc ID 729987 at Joint Stip. of Lashify and CVS.

CVS Pharmacy, Inc, is wholly owned by CVS Health Corporation, and is the entity that operates CVS-branded retail stores. *Id.* CVS is a reseller of the KISS Accused Products. CIB at 17; RIB at 3; Compl. at ¶ 26.

b) Qingdao Hollyren Cosmetics Co., Ltd. d/b/a Hollyren

Hollyren is a corporation organized and existing under the laws of China, with its headquarters at No. 3 Qianbali East Road, Pingdu Development Zone, Pingdu City, Qingdao City, Shandong Province, China. Compl. at ¶ 27. Hollyren sells, manufactures, and imports false eyelash products, including false lashes and related accessories, tools for application, storage cartridges, and private label products. *Id.* at ¶ 28; *see also* CIB at 17.

c) Qingdao Xizi International Trading Co., Ltd.

Xizi Lashes is a company organized under the laws of China, having a place of business at No. 3 Qianbali East Road, Pingdu Development Zone, Pingdu City, Qingdao City, Shandong Province, China. Compl. at ¶ 29. As noted above,

RIB at 3.

d) Qingdao LashBeauty Cosmetic Co., Ltd. d/b/a Worldbeauty

Worldbeauty is a corporation organized and existing under the laws of China, with its headquarters at Room 219, No. 2 Building Yinhua Plaza, No. 190 Shandong Road, Shibei District Qingdao, China, 266034. Compl. at ¶ 31. Worldbeauty sells, manufactures, and imports false eyelash products, including false lashes, accessories, and private label products, and is the alleged manufacturer of the Accused Products of Respondent Lilac St. *Id.* at ¶ 32; *see also* Compl. Ex. 33.

JX-0221C.0065-0066.

e) Alicia Zeng, Lilac St., and Artemis Family Beginnings, Inc.

Alicia Zeng is an individual residing at 918 Capp St., San Francisco, CA 94110. Compl. at ¶ 33. Ms. Zeng does business under the name "Lilac St." for the purposes of making, importing, and selling the Lilac Accused Products. *Id.* Lilac St. is the d/b/a name of Artemis Family Beginnings, a Delaware corporation with a place of business at 918 Capp St., San Francisco, California 94110. RIB at 3; Compl. at ¶ 33. Ms. Zeng is Artemis's founder and CEO. RIB at 3. Lashify alleges that the Lilac Accused Products are manufactured by Worldbeauty, and Lilac acts as a distributor that rebrands and resells such products in the United States. Compl. at ¶ 34.

C. Overview of the Technology

This Investigation involves "artificial eyelash extensions, cartridges for packaging and storage of artificial eyelash extensions, application devices, bonding agents, and removers, as well as artificial eyelash extension systems containing one or more of the same." 85 Fed. Reg. 68,366-367 (Oct. 28, 2020); *see also* Compl. at ¶ 37 ("[T]he Accused Products or categories of Accused Products are artificial eyelash extensions, cartridges for packaging and storage of artificial eyelash extensions, application devices, bonding agents, and removers, as well as artificial eyelash extension systems containing one or more of the same.")

D. Products at Issue

1. The Accused Products

a) KISS Respondents

The KISS Accused Products are as follows:

Product Name	Product ID
KISS Falscara Eyelash Starter Kit	KFCK01, KFCK02, KFCK03
KISS Falscara Eyelash Wisps 01 Lengthening Wisp	s KFCL01
KISS Falscara Eyelash Wisps 01 Volumizing Wisps	KFCL02
KISS Falscara Eyelash – Wisps 01 – Lifting Wisps	KFCL03
KISS Falscara Eyelashes	KFCM01, KFCM03

CIB at 24.

b) Worldbeauty

The Worldbeauty Accused Products are as follows:

Product Name	Product ID
TGSS	N/A
TSD (E Lash)	N/A
DIY Product Line	DIY C1; DIY C2; DIY C2 Feather; DIY C3 Originals; DIY C3 Light Brown; DIY C3 Dark Brown; DIY C4; DIY C5; DIY C6; DIY C7; DIY C8; DIY C9; DIY C10
GPB Product Line BDL Line	GPB BDL22; GPB BDL53; GPB BDL55
GPB Product Line S Line	GPB S9; GPB S10; GPB S11; GPB S18; GPB S19; GPB S20; GPB S21
GPC Product Line	GPC S1; GPC S2; GPC S3; GPC S4; GPC S5; GPC S6; GPC S7; GPC S8; GPC S12; GPC S13; GPC S14; GPC S15; GPC S16; GPC S17

CIB at 25.

c) Hollyren

The Hollyren Accused Products are set forth below:

Product ID
DD702, DD703, DD704, DD705, DD706, DD707
CX1514
DX02059G0004

Id.

d) Lilac

Lilac's Accused Products are the Lilac Starter Kit, Lilac Lash/Originals, and Lilac Feather.

Id.

2. The Domestic Industry Products

Lashify alleges that its Domestic Industry Products are its DIY, salon-style lash extension system. ² CIB at 23. According to Lashify, the system is comprised of the Gossamer lash extensions in styles A (Amplify), B (Bold), C (Curl), D (Drama), E (Extreme), EE (Extra Extreme), F (Fluffy), and their variations (such as the Prismatics and Starburst); Fuse Control Wands; Wandoms (covers that are placed over the tips of the Fuse Control Wand to keep it from becoming sticky or otherwise being affected by the bond or remover); Bonds and Sealers; Removers; and a Storage Box designed to store these components. *Id.* at 23-24.

II. IMPORTATION

Respondents do not contest that the importation requirement is met. RIB at 6-7; see also CX-0424C.0008-.0014; CX-0427C at 55:24-57:23; CX-0430C at 27:14-30:1; CX-0432C at 23:23-24:20, 29:13-31:11; CX-0438C at 25:5-28:13, 29:23-25; CX-1839C; CX-1968C.0007-13; CX-

² Respondents and Staff dispute which Lashify products should be considered in the domestic industry analysis. See RIB at 87; SIB at 76. This will be addressed in the discussion on economic prong. See Section VIII, infra.

1845.0001 n.1; CX-2382.0001-0002 n.1; CX-0423.0030; JX-0220C.0008-.0013; CX-1909C.0003-.0006; JX-0221C.0008-.0012; CX-2526; CX-1645C.

III. JURISDICTION

Respondents do not contest that the Commission has jurisdiction (subject matter, personal, and *in rem*) over this Investigation. RIB at 6-7.

IV. RELEVANT LAW

A. Infringement – Utility Patent

In a section 337 investigation, the complainant bears the burden of proving infringement of the asserted patent claims by a preponderance of the evidence. *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1349 (Fed. Cir. 2010). This standard "requires proving that infringement was more likely than not to have occurred." *Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1341 n.15 (Fed. Cir. 2005).

1. Literal Infringement

Literal infringement is a question of fact. *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). Literal infringement requires the patentee to prove that the accused device contains each limitation of the asserted claim(s). If any claim limitation is absent, there is no literal infringement of that claim as a matter of law. *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

2. Indirect Infringement

Indirect infringement may be either induced or contributory. Direct infringement must first be established in order for a claim of indirect infringement to prevail. *BMC Res. v. Paymentech*, 498 F.3d 1373, 1379 (Fed. Cir. 2007).

a) Induced Infringement

Section 271(b) of the Patent Act provides: "Whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. §271(b) (2008). To establish liability, the patent holder must prove that "once the defendants knew of the patent, they 'actively and knowingly aid[ed] and abett[ed] another's direct infringement." *DSU Med. Corp. v. JMS Co., Ltd.* 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc) (citations omitted). A finding of induced infringement requires "evidence of culpable conduct, directed to encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities." *Id.* at 1306. Although §271(b) requires knowledge that the induced acts constitute patent infringement, the Supreme Court has held that liability will also attach when the defendant is willfully blind. *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068-2069 (2011). The burden is on the complainant to prove that the respondent had the specific intent and took action to induce infringement. *DSU*, 471 F.3d at 1305-06. Intent may be proven by circumstantial evidence. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1322 (Fed. Cir. 2009).

B. Infringement – Design Patent

The test for determining infringement of a design patent is the "ordinary observer" test. *See Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008) (*en banc*). In defining the "ordinary observer" test, the Supreme Court stated:

[I]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.

Gorham Mfg. Co. v. White, 81 U.S. 511, 528 (1871). Thus, "the test for design patent infringement is not identity, but rather sufficient similarity." Pacific Coast Marine Windshields, Ltd. v. Malibu Boats, LLC, 739 F.3d 694, 701 (Fed. Cir. 2014); see also L.A. Gear, Inc. v. Thom McAn Shoe Co.,

988 F.2d 1117, 1125 (Fed. Cir. 1993) (design patent infringement requires determining "whether 'the effect of the whole design [is] substantially the same.'").

1. Claim Construction

"Design patents 'typically are claimed as shown in drawings,' and claim construction 'is adapted accordingly." *Egyptian Goddess, Inc.*, 543 F.3d at 679.

C. Validity

A patent is presumed valid. *See* 35 U.S.C. § 282; *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011). A respondent who has raised patent invalidity as an affirmative defense has the burden of overcoming this presumption by clear and convincing evidence. *See Microsoft*, 564 U.S. at 95.

1. 35 U.S.C. § 103 (Obviousness)

Under 35 U.S.C. §103, a patent may be found invalid for obviousness if "the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." 35 U.S.C. §103. Because obviousness is determined at the time of invention, rather than the date of application or litigation, "[t]he great challenge of the obviousness judgment is proceeding without any hint of hindsight." *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1375 (Fed. Cir. 2011) ("*Star II*").

When a patent is challenged as obvious, the critical inquiry in determining the differences between the claimed invention and the prior art is whether there is an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417-418 (2007). The Federal Circuit has since held that when a patent is challenged

as obvious, based on a combination of several prior art references, "the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so." *PharmaStem Therapeutics*, *Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007) (citations omitted).

Obviousness is a determination of law based on underlying determinations of fact. Star II, 655 F.3d at 1374. The factual determinations behind a finding of obviousness include: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art, and (4) secondary considerations of nonobviousness. KSR, 550 U.S. at 399 (citing Graham v. John Deere Co., 383 U.S. 1, 17 (1966)). These factual determinations are referred to collectively as the "Graham factors." Secondary considerations of non-obviousness include commercial success, long felt but unresolved need, and the failure of others. *Id.* When present, secondary considerations "give light to the circumstances surrounding the origin of the subject matter sought to be patented," but they are not dispositive on the issue of obviousness. Geo. M. Martin Co. v. Alliance Mach. Sys. Int'l., 618 F.3d 1294, 1304-06 (Fed. Cir. 2010). A court must consider all of the evidence from the Graham factors before reaching a decision on obviousness. For evidence of secondary considerations to be given substantial weight in the obviousness determination, its proponent must establish a nexus between the evidence and the merits of the claimed invention. W. Union Co. v. MoneyGram Payment Sys. Inc., 626 F.3d 1361, 1372-73 (Fed. Cir. 2010) (citing In re GPAC Inc., 57 F.3d 1573, 1580 (Fed. Cir. 1995)).

2. 35 U.S.C. § 112 (Written Description)

The hallmark of the written description requirement is the disclosure of the invention. Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The test for determining the sufficiency of the written description in a patent requires "an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed." Id. Compliance with the written description requirement is a question of fact and "the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology." Id.

3. 35 U.S.C. § 112 (Enablement)

Section 112 of the Patent Act requires that a patent specification "enable any person skilled in the art to which it pertains . . . to make and use" the claimed invention. 35 U.S.C. § 112, ¶ 1 (pre-AIA). "Claims are not enabled when, at the effective filing date of the patent, one of ordinary skill in the art could not practice their full scope without undue experimentation." Wyeth & Cordis Corp. v. Abbott Labs., 720 F.3d 1380, 1384 (Fed. Cir. 2013). The enablement requirement "prevents . . . overbroad claiming that might otherwise attempt to cover more than was actually invented." MagSil Corp. v. Hitachi Glob. Storage Techs., Inc., 687 F.3d 1377, 1381 (Fed. Cir. 2012). "The scope of the claims must be less than or equal to the scope of the enablement to ensure that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims." Sitrick v. Dreamworks, LLC, 516 F.3d 993, 999 (Fed. Cir. 2008).

Enablement is a question of law based on underlying facts. Wyeth & Cordis Corp., 720 F.3d at 1384. In analyzing whether the full scope of a claim is enabled, the Federal Circuit has

considered the following factors: "(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims." *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). However, the *Wands* factors "are illustrative, not mandatory." *Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 927 F.2d 1200, 1213 (Fed. Cir. 1991).

D. Domestic Industry

For a patent-based complaint, a violation of section 337 can be found "only if an industry in the United States, relating to the articles protected by the patent . . . concerned, exists or is in the process of being established." 19 U.S.C. § 1337(a)(2). This domestic industry requirement of section 337 is often described as having an economic prong and a technical prong. *InterDigital Commc'ns*, *LLC v. Int'l Trade Comm'n*, 707 F.3d 1295, 1298 (Fed. Cir. 2013); *Certain Stringed Musical Instruments & Components Thereof*, Inv. No. 337-TA-586, USITC Pub. 4120, 2009 WL 5134139 (Dec. 2009), Comm'n Op. at 12-14. The complainant bears the burden of establishing that the domestic industry requirement is satisfied. *See Certain Set-Top Boxes & Components Thereof*, Inv. No. 337-TA-454, ID at 294, 2002 WL 31556392 (June 21, 2002) (unreviewed by Commission in relevant part).

1. Economic Prong

Section 337(a)(3) sets forth the following economic criteria for determining the existence of a domestic industry in such investigations:

- (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned
 - (A) significant investment in plant and equipment;
 - (B) significant employment of labor or capital; or

(C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3). Thus, section 337(a)(3) requires that investments be either "significant" or "substantial." The Federal Circuit has clarified that a quantitative analysis must be performed in order to make this determination. Lelo Inc. v. Int'l Trade Comm'n, 786 F.3d 879, 883 (Fed. Cir. 2015) ("The plain text of § 337 requires a quantitative analysis in determining whether a [complainant] has demonstrated a 'significant investment in plant and equipment' or 'significant employment of labor or capital.""). There is no threshold amount that a complainant must meet. See Certain Stringed Musical Instruments & Components Thereof, Inv. No. 337-TA-586, Comm'n Op. at 25-26 (May 16, 2008) ("We emphasize that there is no minimum monetary expenditure that a complainant must demonstrate to qualify as a domestic industry under the 'substantial investment' requirement of this section."); Certain Male Prophylactic Devices, Inv. No. 337-TA-546, Comm'n Op. at 39 (Aug. 1, 2007) ("Male Prophylactic Devices") ("[T]here is no mathematical threshold test."). Rather, the inquiry depends on "the facts in each investigation, the article of commerce, and the realities of the marketplace." Certain Printing & Imaging Devices & Components Thereof, Inv. No. 337-TA-690, Comm'n Op. at 27 (Feb. 17, 2011). As such, "[t]he determination takes into account the nature of the investment and/or employment activities, the industry in question, and the complainant's relative size." Id.

2. Technical Prong

The technical prong of the domestic industry requirement is satisfied when the complainant in a patent-based section 337 investigation establishes that it is practicing or exploiting the patents at issue. See 19 U.S.C. § 1337(a)(2) and (3); Certain Microsphere Adhesives, Process for Making Same & Prods. Containing Same, Including Self-Stick Repositionable Notes, Inv. No. 337-TA-366, Comm'n Op. at 8, 1996 WL 1056095 (Jan. 16, 1996). "The test for satisfying the 'technical

prong' of the industry requirement is essentially [the] same as that for infringement, *i.e.*, a comparison of domestic products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). To prevail, the patentee must establish by a preponderance of the evidence that the domestic product practices one or more claims of the patent. It is sufficient to show that the products practice any claim of that patent, not necessarily an asserted claim of that patent. *See Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm'n Op. at 38 (Aug. 1, 2007).

V. U.S. PATENT NO. 10,721,984

A. Overview

The '984 patent, entitled "Artificial Lash Extensions," issued on July 28, 2020 to Sahara Lotti. The '984 patent is assigned to Lashify.³ The '984 patent is directed to artificial lashes. Specifically, it relates to "clusters of artificial eyelash extensions that can be applied to the underside of an individual's natural eyelashes." JX-0002 at 1:16-18.

1. Asserted Claims

Lashify is asserting all, or a subset, of claims 1, 9, 13, 23, and 27-28 of the '984 patent against each of the Respondents. CIB at 30, 39, 45, 51. These claims read as follows⁵:

1. [pre] A lash extension comprising:

[a] a plurality of first artificial hairs, each of the first artificial hairs having a first heat fused connection to at least one of the first artificial hairs adjacent thereto in order to form a first cluster of artificial hairs, the first heat fused connection defining a first base of the first cluster of artificial hairs; and

³ Lashify owns by assignment the entire right, title, and interest in the '984 patent. Compl. at ¶ 56.

⁴ The '984 patent refers to artificial hairs made of synthetic materials, such as polybutylene terephthalate ("PBT"). JX-0002 at 2:39-43, cl. 9. The Accused Products and domestic industry products are made of materials including PBT and polyethylene terephthalate ("PET"). *See* CX-2095C at Q/As 40, 47-50.

⁵ The undersigned has adopted the Parties' numbering of the claim limitations. See CIB at 30-36; SIB at 16; RLUL.

- [b] a plurality of second artificial hairs, each of the second artificial hairs having a second heat fused connection to at least one of the second artificial hairs adjacent thereto in order to form a second cluster of artificial hairs, the second heat fused connection defining a second base of the second cluster of artificial hairs,
- [c] the first base and the second base are included in a common base from which the first cluster of artificial hairs and the second cluster of artificial hairs extend,
- [d] the first cluster of artificial hairs and the second cluster of artificial hairs are spaced apart from each other along the common base,
- [e] the common base, first cluster of artificial hairs, and second cluster of artificial hairs collectively forming a lash extension configured to be attached to a user.
- 9. The lash extension according to claim 1, wherein each of the first artificial hairs or each of the second artificial hairs is formed of a polybutylene terephthalate (PBT).
- 13. The lash extension according to claim 1, wherein the base has a thickness between about 0.05 millimeters and about 0.15 millimeters.
- 23. [pre] A lash extension comprising:
 - [a] a plurality of first artificial hairs having a plurality of first proximal end portions and a plurality of first distal end portions, the first proximal end portions being heat fused together such that a first cluster of artificial hairs is defined; and
 - [b] a plurality of second artificial hairs having a plurality of second proximal end portions and a plurality of second distal end portions, the second proximal end portions being heat fused together such that a second cluster of artificial hairs is defined,
 - [c] the first cluster of artificial hairs and the second cluster of artificial hairs being linearly heat fused to a common base spanning between the first proximal end portions and the second proximal end portions,
 - [d] the common base, first cluster of artificial hairs, and second cluster of artificial hairs collectively forming a lash extension that is configured to be attached to a user.
- 27. The lash extension of claim 23, wherein the base has a length in a range between about 4 millimeters and about 8 millimeters.
- 28. [pre] A lash extension comprising:
 - [a] a base; and
 - [b] a plurality of clusters of heat fused artificial hairs extending from the base,

- [c] the base having a thickness between about 0.05 millimeters and about 0.15 millimeters,
- [d] the base and clusters of artificial hairs collectively forming a lash extension that is configured to be attached to a user.

2. Claim Construction

The undersigned construed the following terms from the asserted claims as follows⁶:

TERM	CLAIM(S)	CLAIM CONSTRUCTION
"spaced apart [from each other]"	1	Plain and ordinary meaning.
		Such as: "placed at intervals or arranged with distance between [the first cluster and the second cluster]"
"heat fused [connection/together]"	1, 23, 28	joined by applying heat to form a single entity
"cluster(s)"	1, 23, 28	group(s) [of artificial hairs/eyelashes/fibers]
"lash extension(s)"	1, 9, 13, 23, 27-28	any eyelash application product(s) used to extend one's natural lashes

Order No. 26 at 11, 18, 25, 35.

B. Infringement

1. KISS Accused Products

Lashify asserts that the KISS Accused Products infringe claims 1, 9, 23, and 27 of the '984 patent. CIB at 30. Respondents disagree and assert that the KISS Accused Products do not infringe any of the asserted claims. RIB at 17-42. Staff agrees with Respondents. SIB at 18.

a) Claim 1

Lashify argues that the KISS Accused Products meet each and every limitation of claim 1.

CIB at 30, 36. Respondents argue that the KISS Accused Products do not meet limitations 1[a]
[e]. RLUL at 1. Respondents, however, do not dispute that the following portions of those limitations are met: "a plurality of first artificial hairs," "a common base," "the common base,"

⁶ The undersigned previously determined "a person of ordinary skill in the art with respect to the . . . '984 patent[] would have at least a bachelor's degree or higher in materials science, chemistry, physics, or equivalent professional experience." Order No. 26 at 6.

and "forming a lash extension configured to be attached to a user." *Id.* Staff contends that the KISS Accused Products do not meet the following limitations: "heat fused," "clusters," "first base," "second base," "the first and the second base are included in a common base," and "spaced apart." SIB at 31.

i) "heat fused" (Limitations 1[a] and 1[b])

The term "heat fused" is recited in limitations 1[a] and 1[b], which read as follows: "a plurality of first artificial hairs, each of the first artificial hairs having a first heat fused connection to at least one of the first artificial hairs adjacent thereto in order to form a first cluster of artificial hairs, the first heat fused connection defining a first base of the first cluster of artificial hairs" and "a plurality of second artificial hairs, each of the second artificial hairs having a second heat fused connection to at least one of the second artificial hairs adjacent thereto in order to form a second cluster of artificial hairs, the second heat fused connection defining a second base of the second cluster of artificial hairs." JX-0002, cl. 1.

Lashify argues that Dr. Iezzi confirmed via visual inspection that the fibers in the KISS Accused Products are heat fused and deformed. CIB at 30-31. Lashify explains that Dr. Iezzi also examined images of the internal structures of the KISS Accused Products created by Eurofins. *Id.* Lashify argues that an exemplary image from the KFLC02 Accused Product shows a plurality of hairs/fibers that have been joined using heat to the adjacent fibers to form a single entity. *Id.*

Lashify contends that Respondents' evidence of the manufacturing process for the KISS Accused Products is unreliable. *Id.* at 32; CRB at 4. In addition, Lashify argues that the Microtrace⁸ images relied on by Respondents do not show that the fibers are not heat fused within the bases.

⁷ Dr. Iezzi engaged Eurofins Material Science Laboratories ("Eurofins") to perform imaging on the Accused Products. *See* CX-2095C at O/A 16.

⁸ Respondents engaged Microtrace LLC ("Microtrace") to perform imaging on the KISS Accused Products. *See* RX-1688C at Q/A 296.

CIB at 33. Lashify also contends that Respondents' solvent testing denatured and destroyed the heat fused connections, and that Dr. Wanat further destroyed them by pulling apart the products. *Id*.

According to Respondents, the KISS Accused Products are not made with heat fusion. RIB at 17. Respondents write:



Id. They assert that Dr. Wanat's tests confirm the lack of heat fusion in the KISS Accused Products, while Dr. Iezzi's analysis is unreliable because he did not perform any control tests on known glue-only or heat fused only products. Id. at 19-21.

In addition, Respondents submit that Dr. Wanat performed solvent testing on each KISS Accused Product and five control samples that shows that individual fibers in the KISS Accused Products are not connected after the glue is removed. *Id.* According to Respondents, Dr. Wanat used a variety of control samples, including only heat fused, only glued, and both heat fused and glued products. *Id.* at 22. Respondents assert that tests on the control samples known to be heat fused confirm that mineral spirits do not dissolve or remove heat fused connections. *Id.* In contrast, Respondents contend that each of the KISS Accused Products was tested using the same solvent test procedure, which demonstrated no signs that even a single hair was heat fused. *Id.* In fact, Respondents claim that the KISS Accused Products behaved exactly like the control sample that was glued together with no heat applied. *Id.* at 24.

Respondents argue that Lashify's cross-sectional images of the KISS Accused Products are unreliable and contradictory. *Id.* at 29. Respondents assert that Dr. Iezzi incorrectly alleges that the halos/rings in some of the images are signs of heat fusion. *Id.* Respondents explain that two different techniques were used to prepare the cross-sections: (i) polishing down the base and (ii) ultramicrotomy, which cuts through the base with a sharp blade without polishing. *Id.* Respondents contend that the overlapping halos/rings that Dr. Iezzi points to in the polished sample are missing from the same product prepared by ultramicrotomy. *Id.* at 29-30. According to Respondents, "Dr. Iezzi discarded these exculpatory results without explanation, while admitting at the hearing that polishing creates friction causing heat, that polishing requires applying pressure to the surface of the cross-section using a circular rotating tool, and that in addition diamond particles are used in a solution to physically wear away the surface of the cross-section." *Id.* at 30. Respondents further argue that polishing is not an appropriate method to prepare cross-sections of PBT because it can cause smearing and other artifacts on the surface being polished. *Id.*; *see also* RRB at 7.

Respondents explain that Dr. Wanat asked Microtrace to create its own cross-sections of the KISS Accused Products as well as various control samples. CIB at 31. Respondents contend that ultramicrotomy is the "preferred method" for cross-sectioning because of the softness of the fibers and glue. Id. Respondents claim that the results showed no signs of heat fusion in the KISS Accused Products. Id. at 31-32. Again, Respondents contend that the KISS Accused Products behaved exactly like the control sample that was glued together with no heat applied. Id. at 33.

Staff agrees with Respondents that the KISS Accused Products do not satisfy the "heat fused" claim element. SIB at 19. Staff explains that the KISS Accused Products

⁹ According to Respondents, Microtrace cross-sectioned products known to be heat fused, products known to be glued, and products known to be both heat fused and glued. *Id.* at 31.

Id. Specifically, Staff explains that the KISS Accused Products

Id. at 20. Because

neither the adhesive nor the base string are artificial hairs, Staff argues that the KISS Accused Products do not satisfy limitations that require artificial hairs to be directly heat fused together. *Id*.

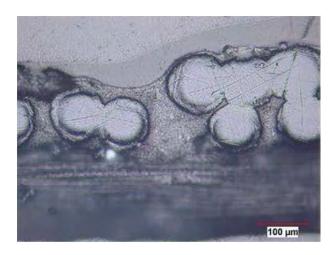
Staff asserts that Dr. Iezzi's infringement opinions are "overreaching and inconsistent with a more reasonable and conservative interpretation of the images and testing, particularly where his testing protocols damaged the samples during a mechanical polishing step." *Id.* at 20-21. Moreover, Staff points out that Dr. Iezzi did not include any control samples. *Id.* at 21. Staff therefore argues that Dr. Iezzi's testing is unreliable and not persuasive. *Id.* On the other hand, Staff explains that Dr. Wanat obtained images of the KISS Accused Products along with several control samples. *Id.* Staff submits that Dr. Wanat conducted solvent testing, which confirmed that there was no heat fusion in the KISS Accused Products. *Id.*

According to Staff, the solvent testing performed by Dr. Wanat is the "gold standard' for determining whether 'heat fused' connections exist to create a 'single entity' that cannot easily be separated in the absence of adhesive." *Id.* at 21-22. Staff contends that in contrast to the testing of glue-based samples, Dr. Wanat found that the heat fused control samples showed a melted region around the fibers made from additional PBT material from the fiber that has melted, forming a base that fused the whole area together. *Id.* at 24. Staff explains that the heat fused fibers did not have visible boundaries in the heat fused area, or in other words, did not have clear demarcation between two fibers. *Id.* Staff contends that Dr. Wanat did not find a single instance where a cluster or multiple hairs were heat fused together in any of the KISS Accused Products. *Id.* at 25. Staff

explains that after the glue was removed from the KISS Accused Products, the lash fibers were entirely and easily separated from one another and were not connected. *Id*.

In contrast, Staff asserts that Lashify "cherry picked" the best exemplary cross-sectional image that it had for the KFCL02 Accused Product in an attempt to argue for heat fused connections in all of the KISS Accused Products. *Id.* Staff, however, contends that Dr. Iezzi's witness statement shows this image along with several other cross-sectional images of the KFCL02 that clearly do not show merging of the material of one fiber with the material of an adjacent fiber. *Id.* at 26-27. Staff contends that comparing images of polished samples to images of samples prepared using ultramicrotomy by Microtrace shows that the discrepancy in Dr. Iezzi's images is not an isolated occurrence. *Id.* at 27-28. Staff therefore concludes that Dr. Iezzi's analysis and opinions on the "heat fused" limitations "are flawed and incorrect, and that Lashify's heat fusion testing cherry-picked a non-representative image of KFCL02, and was unreliable, misleading, and not dispositive of whether there is heat fusion." *Id.* at 30.

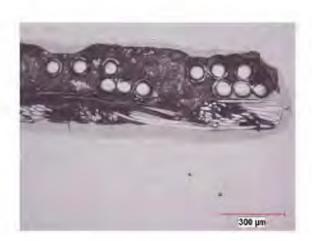
The undersigned finds that the KISS Accused Products do not meet the "heat fused" limitations. Lashify's brief points to an "exemplary image" of the KFLC02 Accused Product (reproduced below) that allegedly shows "a plurality of hairs/fibers that have been joined, using heat, to the adjacent fibers to form a single entity." *See* CIB at 31.



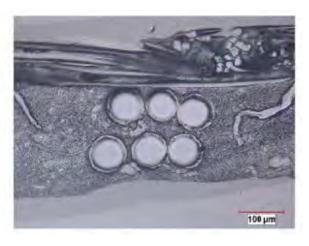
CX-2095C at Q/A 492. This image, however, appears in Dr. Iezzi's witness statement along with other cross-sectional images of the KFCL01, KFCL02, and KFCL03 Accused Products, as shown below.

KFCL01





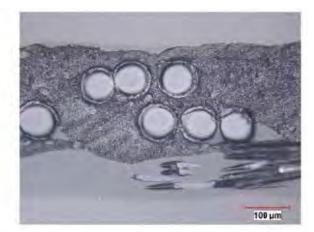




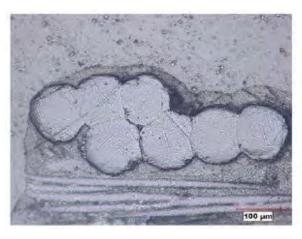




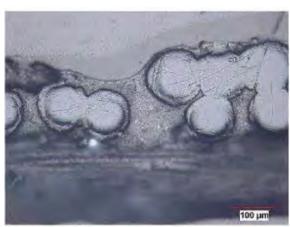




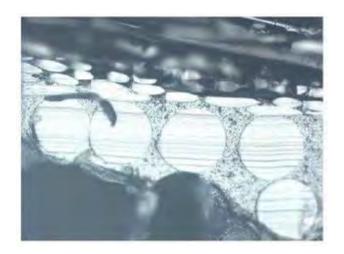
KFCL02



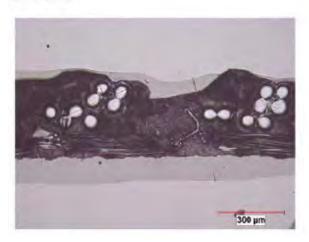


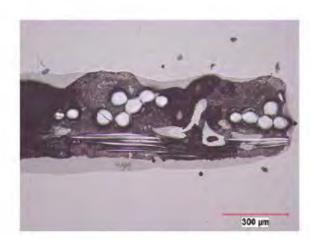


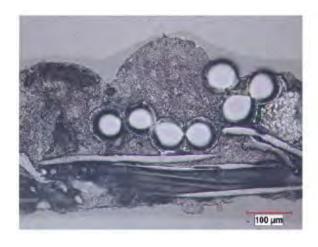


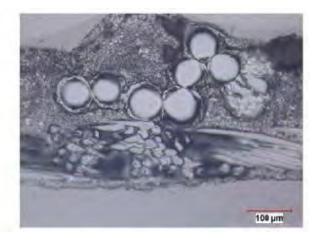


KFCL03

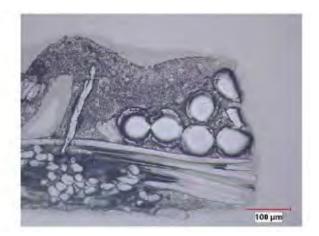












CX-2095C at Q/A 492.

While some of those images could arguably show the material of one fiber beginning to merge with the material of an adjacent fiber, other images clearly do not show any merging. *See id.* At best, these images provide inconclusive evidence of whether the fibers are joined to form a single entity. Nor does Dr. Iezzi explain why the inconsistent images support his theory of infringement. *See id.* He merely states, for example, that "[t]he fibers in the images are shown as white circles; in some images, the white fiber circles are surrounded in haloes/rings-these haloes/rings are joined outer surfaces of the fibers themselves," "[t]he fibers are joined as a single entity from the application of heat during the manufacture process," and that "[t]he joined fibers are visible in the visual inspection." *Id.* He does not explain why haloes/rings may be visible in same samples and not others. Without explaining how the inconsistent images lead to the same conclusion, the undersigned finds Dr. Iezzi's analysis is incomplete and not persuasive.

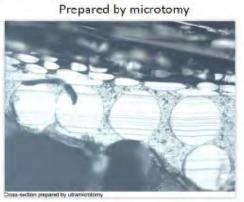
On the other hand, Respondents present cross-sectional images of the KISS Accused Products that effectively rebut Dr. Iezzi's analysis. First, while the alleged haloes/rings can be seen in some of Dr. Iezzi's samples prepared by polishing, they are not found in samples prepared by

¹⁰ Moreover, Lashify's characterization of Dr. Iezzi's testimony further confuses its position because Lashify appears to emphasize the fibers also joining with the glue matrix. *See* CIB at 31 n.221.

ultramicrotomy. *See* RX-1688C at Q/A 295. For example, as shown below, Dr. Wanat compares various images of the KFCL01, KFCL02, and KFCL03 Accused Products prepared either by polishing or ultramicrotomy.

Cross Sections of KFCL02

Prepared by polishing

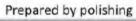


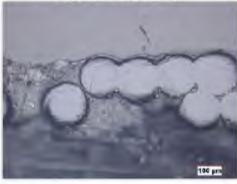
Cross Sections of KFCL01

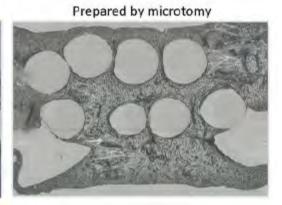




Cross Sections of KFCL02





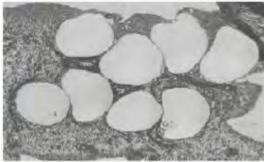


Cross Sections of KFCL03

Prepared by polishing

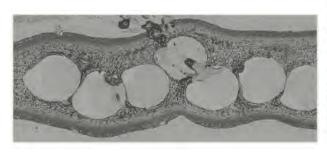
Prepared by microtomy





RX-1688C at Q/As 295, 297, 300, 303. While some of the images on the left (prepared by polishing) show the alleged haloes/rings, the images on the right (prepared by ultramicrotomy) clearly do not. *See id.* As Dr. Wanat explains, Dr. Iezzi's images are not reliable because the polishing step can create smearing and artifacts that damage the samples. *See* RX-1688C at Q/As 299, 302, 305-06 ("The process of polishing these samples involves a mechanical rubbing of the surface of the samples, which by definition disturbs the physical surface of the exposed fibers and causes movement of minute amounts of material across the surface being polished. In ultramicrotomy, there is no need for polishing, because the cutting is done with an extremely fine cutting tool."); Wanat, Tr. at 571:3-15; Iezzi, Tr. at 56:14-58:17.

To further demonstrate that polishing causes disturbances in the fibers that ultramicrotomy does not, Dr. Wanat prepared and analyzed various control samples. For example, he prepared control samples where fibers were glued together and were not exposed to heat. RX-1688C at Q/As 307-314. Cross-sectional images of those control samples prepared by ultramicrotomy (as shown below) show fibers with well-defined edges -i.e., no haloes/rings.





RX-1688C at Q/As 310, 313.

Similarly, cross-sectional images of the KFCL01, KFCL02, and KFCL03 Accused Products (as shown below) prepared by ultramicrotomy show fibers with well-defined boundaries and no haloes/rings.

Cross Sections of KFCL01

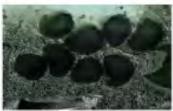
Cross Sections of KFCL02





Cross Sections of KFCL03

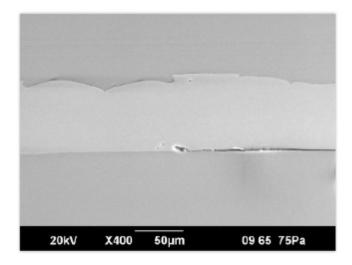




RX-1688C at Q/As 298, 301, 304. As can be seen above, these images do not show any merging of the material of one fiber with the material of an adjacent fiber. Thus, there is no evidence of the fibers being heat fused or joined to form a single entity.

Moreover, these images are in stark contrast with those of a known heat fused product – the PUIE lashes. ¹¹ Reproduced below is a cross-sectional image of the PUIE lash.

¹¹ Dr. Iezzi confirmed that the PUIE is a heat fused product. Iezzi, Tr. at 67:10-14.



RX-1688C at Q/As 319-21. This image shows that in a known heat fused product, the fibers have been completely melted and fused together to form one entity. ¹² See id. In fact, one cannot discern any individual fibers in this image. See id. None of the cross-sectional images of the KISS Accused Products even remotely resemble this resulting structure. ¹³

In addition, Dr. Wanat performed solvent testing, which supports the conclusion that there is no heat fusion in the KISS Accused Products. Dr. Wanat immersed the products in mineral spirits ¹⁴ overnight for approximately 12 hours. *See* RX-1688C at Q/A 191. After removing the products from the mineral spirits and wiping away excess liquid, Dr. Wanat then probed the base of the product and tried to slowly pull the glue base away, and if able to, then probed the remaining fibers to confirm that there were no connections between the fibers. *Id.* at Q/A 191.

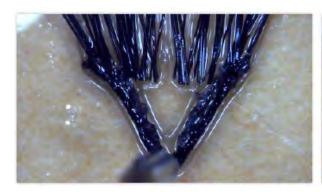
Dr. Wanat's solvent testing of the KFCL01 Accused Product shows that the fibers are only connected by glue and that there are no heat fused connections. *See* RX-1688C at Q/As 196-204.

¹² The same is true for the cross-sectional image of a control sample that Dr. Wanat prepared using heat sealing. *See* RX-1688C at Q/As 315-18.

¹³ Dr. Iezzi, on the other hand, did not analyze any control samples, such as known glue-only or heat fused-only products. *See* Iezzi, Tr. at 66:17-67:17, 201:25-203:6.

¹⁴ Dr. Wanat used mineral spirits "because PBT and PET have great chemical resistance to mineral spirits." RX-1688C at Q/A 192. Thus, "when the mineral spirits softens and removes the glued base, it does not react with, attack, dissolve, or deform the PBT/PET fibers (i.e., it would not destroy any heat fused connections between fibers or between fibers and other materials capable of heat fusion in the base)." *Id*.

For example, as shown in the images below, after the KFCL01 is soaked in mineral spirits, the glue base is removed by applying minimal force. *See id.* at Q/As 197-98. And once the base is removed, what remains is individual fibers that are no longer connected. *See id.* at Q/As 199-202.





Id. at Q/As 198-99. The KFCL02, KFCL03, KFCM01, and KFCM03 Accused Products demonstrated similar results. *See id.* at Q/As 205-240. This shows that after the glue is removed from the KISS Accused Products, the individual fibers are no longer connected to any other fibers. Thus, there is no heat fusion because nothing other than the glue is holding the fibers together and they are not joined to form a single entity. *See* RX-1688C at Q/A 190.

To validate this solvent testing, Dr. Wanat then performed control tests. *See* RX-1688C at Q/A 193. Specifically, Dr. Wanat performed solvent testing on control samples with PBT fibers that were heat fused together (Control 1 and 2), control samples that he glued together (Control 3), a known heat fused PUIE lash (Control 4), and a known heat fused Hollyren product (Control 5). *See id.* The base of the heat fused control samples (Control 1, 2, 4, and 5) could not be easily removed after soaking in mineral spirits. *See id.* at Q/As 241-55, 265-79. Even when Dr. Wanat pulled hard enough to break the base, the fracture left fibers on both sides of the base, showing that the fibers were heat fused together. *See id.* These results show that in the known heat fused samples, the mineral spirits does not remove the heat fused connections. *See id.* at Q/As 248, 255, 272, 279. In contrast, for the glued sample (Control 3), the glue base was easy to remove and left