

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF NEW YORK

INTEGRATED LINER TECHNOLOGIES,
INC.,

Plaintiff,

Civil Action No.
1:09-CV-1285 (DEP)

v.

SPECIALTY SILICONE PRODUCTS, INC.
and SSP, INC.,

Defendants.

APPEARANCES:

OF COUNSEL:

FOR PLAINTIFF:

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DAVID E. PEEBLES
U.S. MAGISTRATE JUDGE

DECISION AND ORDER

This is a patent infringement action involving two direct competitors, both of which are engaged in the commercial manufacture of caps primarily used to house liquid medical or scientific samples for testing.¹ At issue are two related patents – a product patent which concerns open-top caps with elastomer septums bonded to the undersides of the caps, and a method patent disclosing a means of adhesion for use in various settings, including to manufacture such bonded caps.

Currently pending before the court are cross-motions for summary judgment, directed to the issues of patent validity, infringement, and equitable estoppel, as well as an application by the plaintiff to strike reports proffered by an expert retained by the defendants to address the question of patent validity and to preclude him from testifying at trial. For the reasons set forth below, I conclude that certain of the patent claims no longer asserted by the plaintiff, but implicated in defendants' declaratory judgment counterclaims, are invalid as obvious, and no reasonable juror could conclude otherwise. With this exception, however, I deny the pending motions and will set the matter down for trial.

¹ The case is before me in consent of the parties, pursuant to 28 U.S.C. § 636(c). See Dkt. No. 67.

I. BACKGROUND

Plaintiff Integrated Liner Technologies, Inc. (“ILT”), based in Albany, New York, is a commercial manufacturer and seller of bonded caps for use in the medical, health care and other related fields. Defendants Specialty Silicone Products, Inc. and SSP, Inc. (collectively, “SSP”), both of which are headquartered in Ballston Spa, New York, together compete with ILT, manufacturing and selling similar bonded caps.

At issue in this case are two patents, a product patent and a method patent, both of which list Alan R. Gee, William R. Delaney, and Paul M. Petrosino as inventors and have been assigned to ILT. The first of those, U.S. Patent No. 5,647,939 (the “’939 Patent”), was issued by the United States Patent and Trademark Office (“PTO”) on July 15, 1997, and is entitled “Method of Bonding a Cured Elastomer to Plastic and Metal Surfaces.” The second, U.S. Patent No. 6,234,335 (the “’335 Patent”), was issued on May 22, 2001, and is entitled “Sealable Container and Open Top Cap with Directly Bonded Elastomer Septum.”² The two patents are related, tracing their roots to a patent application filed on

² The ’939 and ’335 Patents are annexed to ILT’s complaint (Dkt. No. 1) as Exhibits A and B, respectively, and will hereinafter be cited by shorthand reference to the patents and their columns and lines (e.g., ’939 Patent 3:1-5).

December 5, 1994, and the specifications and drawings contained in both patents are virtually identical.

Although several of the claims of the method patent are broader, the patents in suit generally relate to the manufacture of a cap designed to allow the transfer of a liquid sample into and from a bottle, vial, or other similar type of container by way of a needle inserted through a septum located in the center of the cap. The technology disclosed in the two patents, as it relates to the manufacture of caps, encompasses the bonding of an elastomer, such as a silicone rubber, to the inside surface of an inert plastic or metal cap without the intervening presence of an adhesive or plastic material potentially capable of contaminating any samples to be held in the vessel.

An example of the caps associated with ILT's patented technology is depicted in Figures 1 (top view) and 1A (cross section) of the '939 and '335 Patents, as follows:

FIG. 1

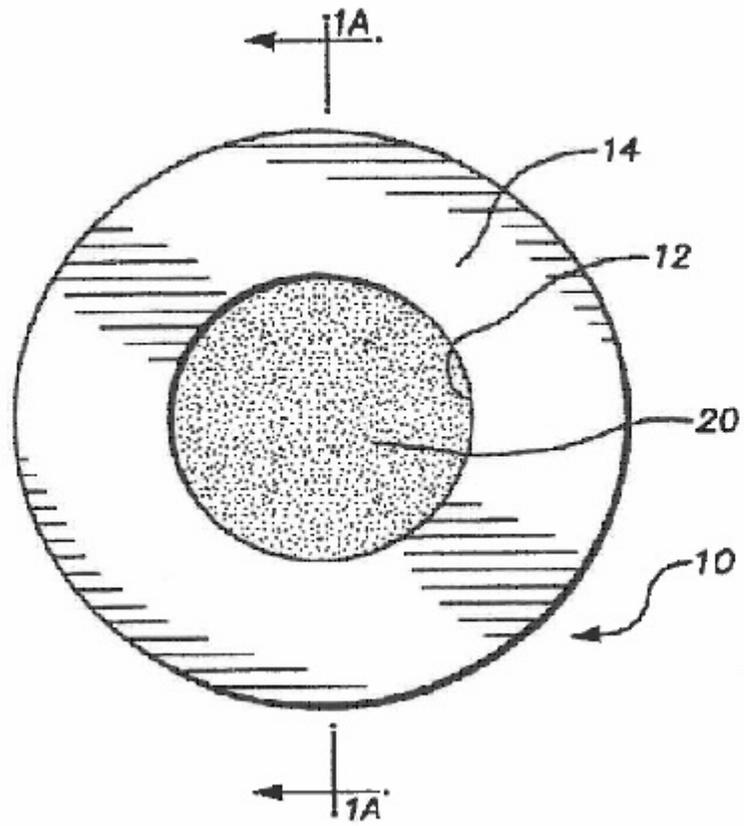
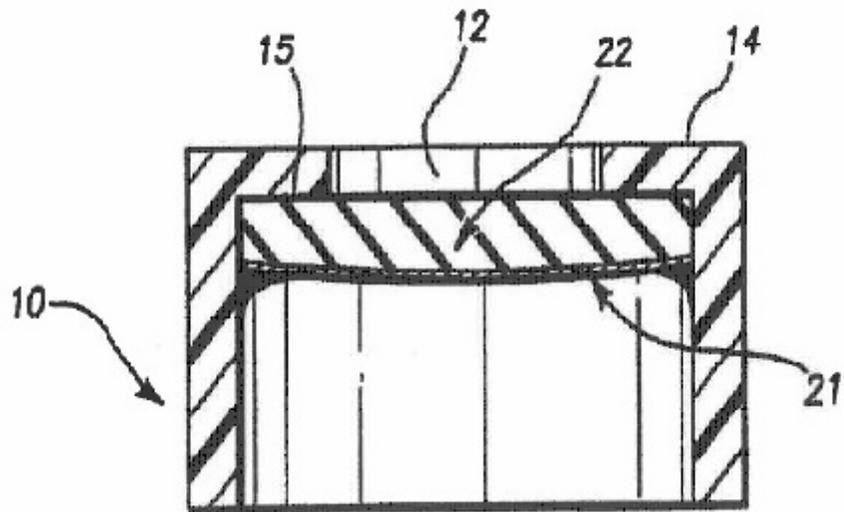


FIG. 1A



In the example represented in Figures 1 and 1A, a polypropylene cap **10** with a hole **12** in the top **14** is married to a thin layer of Teflon **21** bonded to a sheet of silicone rubber **22** by standard means such as by pressing. Together they are then cut to form a septum **20**, sized to fit tightly within the interior of the cap **10**.

The essence of the two patents involves the means by which the elastomer septum is secured to the underside of a plastic or metal cap. The '939 Patent teaches a method of bonding that entails ionization of the two surfaces to be bonded – the elastomer and the inner surface of the plastic or metal cap – and applying pressure to form a direct bond between the two surfaces. '939 Patent, 1:6-7; 2:52-65. According to that patent, the required ionization can be accomplished through a variety of methods, including by treatment “with a flame, corona or plasma discharge as well as by radiation or high intensity UV light.” *Id.* at 2:66-67. The '335 Patent, the sister product patent, describes the finished cap resulting from use of the ionization bonding method disclosed in the '939 Patent.

ILT's complaint asserts that SSP is manufacturing, using, offering for sale and/or selling plastic bonded caps that infringe claims included

within the two patents in suit. While ILT initially claimed infringement of other patent claims as well, the asserted claims have been narrowed to include only Claims 1 and 4-7 of the '335 Patent, and Claims 18-20 of the '939 Patent.

II. PROCEDURAL HISTORY

ILT commenced this action on November 16, 2009, alleging infringement of the two patents in suit by SSP.³ Dkt. No. 1. In its answer, as amended, SSP has responded by generally denying plaintiff's infringement allegations, asserting various defenses, and interposing counterclaims seeking a declaratory judgment on the issues of both non-infringement and patent invalidity. Dkt. No. 19.

On February 15, 2011, upon referral by the then-assigned trial judge, Chief District Judge Gary L. Sharpe, I conducted a *Markman*⁴ hearing, in order to construe the claim terms upon which the parties were unable to reach agreement. Following that hearing, I issued a report, dated April 7, 2011, in which I recommended the following constructions of

³ Plaintiff's complaint also named a third defendant, Streck, Inc. Dkt. No. 1. Subsequent to commencement of the action, however, plaintiff chose to voluntarily discontinue its claims against that defendant, without prejudice, pursuant to Rule 41(a)(1) of the Federal Rules of Civil Procedure. See Dkt. Nos. 15, 16.

⁴ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 116 S. Ct. 1384 (1996).

the disputed patent terms:

<u>Disputed Term</u>	<u>Proposed Construction</u>
primer	a non-adhesive substance utilized as a surface treatment that enhances bond strength
adhesive	a substance that is capable of bonding two or more solids together by surface attachment
bond directly/directly bonded	joined together through surface contact, potentially with the presence of an intervening material
layer	a detectable quantity of a material that is at least partially distributed on a surface.

That recommendation was adopted by Chief Judge Sharpe by decision and order dated October 26, 2011. Dkt. No. 62.

Now that discovery is closed, the parties have submitted cross-motions for consideration by the court. ILT has moved for summary judgment requesting findings of patent validity and infringement as a matter of law. Dkt. Nos. 69, 70. For its part, SSP has similarly moved for summary judgment, seeking a finding of patent invalidity, based upon anticipation and obviousness, and a determination that plaintiff ILT should be equitably estopped from asserting its claims of patent infringement.

Dkt. No. 68. In addition, ILT has interposed a non-dispositive motion, asking the court to strike the opening and rebuttal reports of R.J. Del Vecchio, one of defendants' experts, and to preclude his testimony at trial.

Dkt. No. 94. Oral argument was conducted in connection with the pending motions, all of which are actively opposed, on August 2, 2012, following which decision was reserved.

III. DISCUSSION

A. Plaintiff's Motion to Strike

On January 26, 2012, R.J. Del Vecchio, an expert retained by SSP, issued a report in which he opined that a majority of the claims of the '335 and '939 Patents, including the claims asserted by ILT, are invalid based upon obviousness and/or as anticipated.⁵ The centerpiece of Del Vecchio's opinions regarding anticipation and obviousness is U.S. Patent No. 5,019,510, issued by the PTO to Chou *et al.* ("Chou Patent"), and describing a method for promoting the adhesion of a first polymer surface to a second polymer surface by treating at least one of the polymer

⁵ Del Vecchio's opening report also opines that the '939 and '335 patents are invalid under 35 U.S.C. § 112(a) and (b). Specifically, Del Vecchio opines that both patents fail because (1) it is impossible for one skilled in the art to reliably distinguish between an adhesive and a primer, and (2) neither patent provides an upper time limit within which the two ionized/activated surfaces must be joined in order to form a bond absent the use of a primer or adhesive.

surfaces with water vapor plasma, although the report goes on to cite additional prior art to support his finding of obviousness. In his opening report, Del Vecchio opines that Claims 1, 2, 3, 7, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20 and 24 of the '939 Patent and Claims 1, 9, 10, 11, 13, and 14 of the '335 Patent are anticipated by the Chou Patent and/or obvious in light of that patent, and that claims 2, 3, 4, 5, 6, 7 and 8 of the '939 Patent, and Claims 2, 3, 4, 5, 6, 7, 8, 15, 19, 20, and 21 of the '335 Patent are obvious in light of the Chou Patent, in combination with other cited prior art.

On March 9, 2012, following disclosure of a report by ILT's patent validity expert, Del Vecchio issued a rebuttal report containing a more comprehensive discussion regarding his invalidity opinions. In that second report, among other things, Del Vecchio outlined the basis for his belief that the references relied upon by him in opining upon invalidity are analogous prior art. Plaintiff now seeks to strike both the opening and rebuttal expert reports of that expert.⁶

⁶ In response to opposition papers filed on behalf of SSP, ILT submitted a reply memorandum in further support of its motion to strike. See Dkt. No. 107. Somewhat ironically, SSP has asked the court to strike that reply as unauthorized under the court's local rules governing non-dispositive motions. See N.D.N.Y.L.R. 7.1(b). In light of the significance of ILT's motion to the substantive issue of patent validity, and in the interest of providing the parties with a full opportunity to be heard, I have considered plaintiff's reply memorandum and will deny defendants' motion to strike that document.

The court's analysis of ILT's motion to strike begins with Rule 26 of the Federal Rules of Civil Procedure, which requires a party to disclose the identity of any witness that may be used at trial to present expert testimony, and for each to provide a written report, prepared and signed by the witness, containing, among other things, "a complete statement of all opinions the witness will express and the basis and reasons for them. . ."⁷ Fed. R. Civ. P. 26(a)(2)(A)(i), see *Advanced Fiber Techs. Trust v. J & L Fiber Servs., Inc.*, No. 1:07-CV-1191, 2010 WL 1930569, at *2 (N.D.N.Y. May 11, 2010) (Kahn, J.). In the event of a failure to meet this requirement, "the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless." Fed. R. Civ. P. 37(c)(1).

ILT's motion to strike implicates two issues. The first is whether the disputed reports meet the requirements for introduction of expert testimony at trial. The second concerns whether Del Vecchio's rebuttal report improperly introduced new opinions that were not disclosed in his

⁷ The scheduling order issued in the case was intended to supplement Rule 26(a)(2), setting forth a protocol for the exchange of expert reports, pursuant to which the party with the burden of proof on the issue addressed may submit an opening report, the opposing party may file a response report, and the party with the burden can then choose to file a rebuttal report. See Dkt. No. 23.

opening report, and if so whether ILT was thereby prejudiced.

1. Admissibility of Del Vecchio's Opinions

The admission of expert testimony in an action pending in a federal court is governed by Rule 702 of the Federal Rules of Evidence, which provides that

[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. When applying this standard to expert testimony proffered by a party, a trial court is required to perform a gatekeeping function to ensure "that the expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert v. Merrell Down Pharms, Inc.*, 509 U.S. 579, 597, 113 S. Ct. 2786, 2799 (1993).

As a threshold matter, the trial court must examine the question of whether the challenged opinion evidence can satisfy the requirement of Federal Rule of Evidence 401 that evidence offered at trial be relevant to a controverted claim or defense in the case. *Amorgianos v. National R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002). If the requisite degree of relevance is found, the court must then proceed to determine whether the expert opinion sought to be admitted has a sufficiently reliable foundation to allow consideration by the factfinder. *Id.* This latter inquiry is informed by various relevant factors, including whether (1) the theory or technique can be (and has been) tested; (2) it has been subjected to peer review and publication; (3) there is a known or potential rate of error; and (4) the theory or technique has gained a “degree of acceptance within” the pertinent scientific or technical community. *Daubert*, 509 U.S. at 592-94, 113 S. Ct at 2786. “General acceptance[,]’ [however,] is not a necessary precondition to the admissibility of scientific evidence under the Federal Rules of Evidence, but . . . the trial judge [has] the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” *Daubert*, 509 U.S. at 587, 113 S. Ct. at 2799. Importantly, while both Rule 702 and the Supreme Court’s decisions in

Daubert, and later in *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167 (1999), identify specific factors bearing on the question of reliability, courts have stressed that “the *Daubert* inquiry is fluid and will necessarily vary from case to case. *Amorgianos*, 303 F.3d. at 266; see also *Daubert*, 509 U. S. at 594, 113 S. Ct. 2797.

Rule 702 does not require rejection of opinions based solely upon the court’s disagreement with the conclusions reached or the correctness of the opinions offered. *Daubert*, 509 U.S. at 595, 113 S. Ct. at 2797. Moreover, although in the first instance the burden of establishing the admissibility of expert testimony in question rests with the proponent, any doubts to whether the expert’s testimony will be useful should be resolved in favor of admissibility. *Lappe v. Am. Honda Motor Co., Inc.*, 857 F. Supp. 222, 226 (N.D.N.Y. 1994) (Hurd, M.J.).

In its motion, the defendant challenges the opinions offered by expert Del Vecchio regarding invalidity based upon obviousness. The focus of the obviousness inquiry is upon whether the subject matter of the invention as a whole would have been obvious to a person of ordinary skill in the art to which the subject matter pertains at the time of the invention.⁸

⁸ The legal principles associated with the obviousness inquiry is discussed more fully below. See pp. 42-47, post.

35 U.S.C. § 103(a); see also *Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372-73 (Fed. Cir. 2005). When opining on the issue of obviousness, an expert is not required to elaborate extensively on why it would have been obvious for a person of ordinary skill in the relevant art combine elements from prior art sources, since the combination may be the result of mere “common sense.” *Advanced Fiber Techs. Trust*, 2010 WL 1930569, at *4 (citing *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727 (2007)). To avoid the distorting effects of hindsight, however, a jury must be presented with some evidence as to why a person of ordinary skill in the art would have thought to combine two or more relevant prior references in order to achieve the desired result. *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 (Fed. Cir. 2008); *Advanced Fiber Techs. Trust*, 2010 WL 1930569, at *4.

In his opening report, Del Vecchio correctly recites the controlling legal principles regarding anticipation and obviousness, as well as compliance with 35 U.S.C. § 112, and ILT does not argue otherwise. Del Vecchio then identifies the prior art upon which he relies in concluding that certain of the '939 and '335 Patent claims are anticipated and/or obvious, and describes what a person of ordinary skill in the art would have

understood at the time of the invention regarding the non-adhesive bonding of surfaces, including cured rubber and plastic.⁹ The report goes on to state the basis for concluding that certain of the patent claims are anticipated and/or obvious, in light of either the Chou Patent alone or in combination with other prior art.

Del Vecchio's initial report could well be regarded as suffering to some degree from some of the same deficiencies detected by the Federal Circuit in *Innogenetics*, in that it lacks a sufficiently detailed analysis to permit a jury to examine obviousness while avoiding the pitfalls of hindsight. *Innogenetics*, 512 F.3d at 1173. Significantly, the initial Del Vecchio report does not include the requisite analysis in sufficient detail to allow a juror to apply the legal requirements for finding anticipation or obviousness and determine whether or not a person of ordinary skill in the art of the time of the invention would have understood to combine the elements of the cited prior art references to achieve the patented result.

This potential deficiency, however, is significantly overcome when

⁹ The court has previously determined, essentially with agreement of the parties, that a person of ordinary skill in the art in this instance should be defined as "a person with an undergraduate degree in chemistry, materials science or a related field with at least three to five years of practical experience in a field of applied rubber technology."

Del Vecchio's opening report is considered in tandem with his rebuttal report. Together, the two reports identify the relevant prior art and discuss the significance of the prior art to the challenges faced by the inventors in applying the principles disclosed in prior art to manufacturing bonded caps, explaining along the way the reasons why Del Vecchio considers the cited prior to be analogous. Whether the factfinder accepts Del Vecchio's opinions, or instead the countering views of ILT's expert, remains to be seen. At this juncture, however, I find no basis under Rule 702 as well as *Daubert* and its progeny to exclude Del Vecchio's opinions at trial. *Advanced Fiber Techs. Trust*, 2010 WL 1930569, at *5.

2. Alleged Deficiencies In Del Vecchio Initial Report

ILT argues that even if the Del Vecchio reports, when taken together, pass muster under Rule 702 and *Daubert*, the newly-added rationales for his invalidity opinions, set forth in some detail in his rebuttal report, should have been included in the principal report, thereby making them potentially excludable under Rule 37(c)(1).

An expert report does not meet the requirements of Rule 26(a)(2) if it fails to disclose the basis and reasoning underlying in stated opinions. Fed. R. Civ. P. 26(a)(2)(A)(i); see also *Advanced Fiber Techs. Trust*, 2010

WL 1930569, at *2 (citing Fed. R. Civ. P. 26). Absent either substantial justification or a finding that the omission is harmless, a failure to comply with this provision should result in exclusion of an expert's report. Fed. R. Civ. P. 37(c)(1); see also *Advanced Fiber Techs. Trust*, 2010 WL 1930569 at *2. While, by its literal terms, Rule 37(c)(1) appears to be rather stringent in its exclusionary requirements, the Second Circuit has nonetheless softened its impact by outlining certain relevant factors to be considered when determining whether to preclude expert testimony, including (1) the explanation given for failing to comply with the operative discovery order; (2) the importance of the testimony at issue; (3) whether prejudice would be suffered by the opposing party in having to respond to the new testimony; and (4) the possibility of a continuance. *Softel, Inc. v. Dragon Medical and Scientific Commc'ns, Inc.*, 118 F.3d 955, 961 (2d Cir. 1997) (citing *Outley v. City of New York*, 837 F.2d 587, 590-91 (2d Cir. 1988)).

In this instance, I view the question of prejudice to ILT as a pivotal factor. While ILT complains of the lack of specifics in Del Vecchio's initial report, its expert appears to have fully understood Del Vecchio's reasoning for opining on the issues of anticipation and obviousness, and

responded to those arguments in his report.¹⁰ It should also be noted that after receiving the rebuttal report from Del Vecchio, providing greater detail that was lacking in his opening report, ILT failed to contact the court, prior to taking the expert's deposition, to request appropriate relief.

Moreover, when offered the option during oral argument of permitting service of a sur-rebuttal report from its expert, ILT declined. Under these circumstances, I discern no prejudice to the plaintiff stemming from the fact that Del Vecchio included in his reply report a more comprehensive analysis which should rightly have been set forth in his earlier, principal report. See *Cooper Notification, Inc. v. Twitter, Inc.*, No. 09-865-LPS, 2012 WL 2126903, at *11 (D. Del. May 25, 2012) (“[Plaintiff’s] silence and inaction **after** receiving Defendant’s rebuttal expert reports undermine any claims by [plaintiff] of prejudice.”) (emphasis in original)).

In sum, I find no basis to strike defendants’ invalidity expert’s initial and rebuttal reports or to preclude his testimony at trial. Instead, the matters raised in ILT’s motion can be fully aired through cross-

¹⁰ Although ILT did not file its expert’s report - except for a five-page excerpt offered in support of its motion for summary judgment on its infringement claim - I conclude that ILT’s expert understood Del Vecchio’s report based on ILT’s memorandum of law, and Del Vecchio’s rebuttal report, which makes reference to ILT’s expert’s report.

examination and presentment of competing expert testimony in order to assist the jury in deciding the issue of invalidity.

B. Summary Judgment Standard

Summary judgment motions are governed by Rule 56 of the Federal Rules of Civil Procedure. Under that provision, the entry of summary judgment is warranted “if the movant shows that there is no genuine dispute as to any material facts and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); see *Celotex Corp. v. Catrett*, 477 U.S. 317, 322, 106 S. Ct. 2548, 2552 (1986); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247, 106 S. Ct. 2505, 2509-10 (1986); *Security Ins. Co. of Hartford v. Old Dominion Freight Line, Inc.*, 391 F.3d 77, 82-83 (2d Cir. 2004). A fact is “material” for purposes of this inquiry, if it “might affect the outcome of the suit under the governing law.” *Anderson*, 477 U.S. at 248, 106 S. Ct. at 2510; see also *Jeffreys v. City of New York*, 426 F.3d 549, 553 (2d Cir. 2005) (citing *Anderson*). A material fact is genuinely in dispute “if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson*, 477 U.S. at 248, 106 S. Ct. at 2510.

A party moving for summary judgment bears an initial burden of

demonstrating that there is no genuine dispute of material fact to be decided with respect to any essential element of the claim in issue; the failure to meet this burden warrants denial of the motion. *Anderson*, 477 U.S. at 250 n.4, 106 S. Ct. at 2511 n.4; *Sec. Ins.*, 391 F.3d at 83. In the event this initial burden is met, the opposing party must show, through affidavits or otherwise, that there is a material dispute of fact for trial. Fed. R. Civ. P. 56(e); *Celotex*, 477 U.S. at 324, 106 S. Ct. at 2553; *Anderson*, 477 U.S. at 250, 106 S. Ct. at 2511.

When deciding a summary judgment motion, a court must resolve any ambiguities, and draw all inferences from the facts, in a light most favorable to the nonmoving party. *Jeffreys*, 426 F.3d at 553; *Wright v. Coughlin*, 132 F.3d 133, 137-38 (2d Cir. 1998). The entry of summary judgment is justified only in the event of a finding that no reasonable trier of fact could rule in favor of the non-moving party. *See Bldg. Trades Employers' Educ. Ass'n v. McGowan*, 311 F.3d 501, 507-08 (2d Cir. 2002); *see also Anderson*, 477 U.S. at 250, 106 S. Ct. at 2511 (finding summary judgment appropriate only when “there can be but one reasonable conclusion as to the verdict”). In the event this standard is met, summary judgment may be entered in a patent case, just as in any

other type of action. *Brenner v. United States*, 773 F.2d 306, 307 (Fed. Cir. 1985). In a case such as this, where the parties have interposed cross-motions for summary judgment, each motion must be independently assessed, using this standard as a backdrop. See *Light Sources, Inc. v. Cosmedico Light, Inc.*, 360 F. Supp. 2d 432, 434 (D. Conn. 2005).

C. Infringement

In its motion, ILT claims entitlement to summary judgment on the issue of infringement.

As a general rule, infringement occurs when one or more claims within a patent overlay an accused party's product. *Markman*, 517 U.S. at 374, 116 S. Ct. at 1388; *Amstar Corp. v. Envirotech Corp.*, 730 F.2d 1476, 1481-82 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 924, 105 S. Ct. 306. The methodology which the Federal Circuit has endorsed for determining infringement is neither overly intricate nor particularly controversial, comprising of two distinct steps. *Ecolab, Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1364 (Fed. Cir. 2001); *Schoell v. Riegel Marine Indus., Inc.*, 247 F.3d 1202, 1207 (Fed. Cir. 2001); *Moore U.S.A., Inc. v. Standard Register Co.*, 229 F.3d 1091, 1105 (Fed. Cir. 2000), *cert. denied*, 532 U.S. 1008, 121 S. Ct. 1734 (2001). As a preliminary matter, the scope and

meaning of a patent's claims, and in particular any of its terms that are disputed, must be delineated; this step, generally referred to as claim construction, presents a question of law to be determined by the court. *Ecolab, Inc.*, 264 F.3d at 1364; *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1451-54 (Fed. Cir. 1998); *Moore U.S.A., Inc.*, 229 F.3d at 1105. Once this task has been undertaken, the accused device or method must next be compared to the patent limitations in play, as construed by the court, to determine whether it is encompassed within one or more of the patent holder's claims. *Ecolab, Inc.*, 264 F.3d at 1364; *Schoell*, 247 F.3d at 1207; *Cybor*, 138 F.3d at 1454. This second inquiry presents an issue of fact. *Abraxis Bioscience, Inc. v. Mayne Pharma (USA), Inc.*, 467 F.3d 1370, 1375 (Fed. Cir. 2006); *Optical Disc Corp. v. Del. Mar Avionics*, 208 F.3d 1324, 1333-34 (Fed. Cir. 2000).

To prove infringement, a plaintiff need only show that one claim of a patent in issue is infringed. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1323 (Fed. Cir. 2002). Infringement can be either literal, or under the doctrine of equivalents ("DOE").¹¹ *Moore U.S.A., Inc.*, 229 F.3d at 1105; *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998).

¹¹ ILT does not argue infringement under a DOE theory in this instance.

Infringement occurs under a theory of literal infringement when every limitation of a claim is present in an accused structure or method. See *Amhil Enter., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996) (“Literal infringement of a claim exists . . . when the properly construed claim reads on the accused device exactly.”)

The defendants in this action manufacture and sell open top bonded caps in three different sizes. Those allegedly infringing caps are manufactured from polypropylene, to which a cured elastomer/silicone rubber septum is bonded. To bond the septum to the cap, the caps and the silicone rubber are exposed to a flame.¹² One of six different chemical formulations is then applied to the surface of the activated silicone rubber, and the two are joined utilizing a hydraulic press to force the activated silicone rubber side of the septum against the activated underside of the plastic cap. The press is heated to approximately 170 to 180 degrees Celsius, and applies a pressure of approximately 70 to 80 pounds per square inch in order to bond the cap and the septum together.

Central to the infringement issue is whether the formulations utilized

¹² Flame treatment is one method of achieving ionization, as disclosed in the '335 and '939 Patents. '939 Patent, 2:66-3:2; '335 Patent, 3:6-9.

by SSP in the process are considered primers, or instead adhesives, as the court has construed those terms, and the meaning of the term “directly bonded.” In support of its motion for summary judgment on the issue of infringement, ILT raises two arguments. First, citing excerpts of deposition testimony of R.J. Del Vecchio and Brian Bayly, as well as opinions of its expert, Patrick T. Mather, ILT argues that use of SSP’s formulation without ionization does not result in a durable and persistent bond. According to ILT, it therefore follows that the substance does not fall within the court’s definition of an adhesive. Secondly, relying principally upon deposition testimony of SSP expert Del Vecchio, ILT contends that a bond is to some degree formed when a flame treated cap and flame treated septum are joined utilizing SSP’s process, but without application of the formulation. Given this phenomenon, ILT maintains, the formulation falls within the court’s definition of a primer, serving to enhance the strength of that bond, rather than an adhesive.

The fact that ionization is required in order to permit bond formation utilizing SSP’s formulations is not necessarily fatal to its claim that those substances constitute adhesives. The court’s definition of adhesive requires only that the substance be *capable* of forming a bond between

two solids. This definition does not necessarily exclude substances with respect to which this capability can be realized only through an additional step, such as ionization.¹³

ILT's second argument is also easily discounted. As a threshold matter, it should be noted that the record is equivocal as to whether actual bonding in fact can be realized between a flame treated cap and a flame treated septum without use of SSP's formulation. Del Vecchio's testimony concerning whether bonding occurs when a flame treated cap and a flame treated septum are joined is ambiguous. At one point in his deposition he testified that no bond would form without the use of an SSP formulation. At another, however, Del Vecchio suggested that when he conducted tests some of the caps did show some degree of bonding.

In any event, the fact that some modest bonding can potentially

¹³ In its opposition to ILT's motion, SSP has asked that the court expand its construction of "adhesive." In essence, SSP would add the qualification that an adhesive must be capable of bonding two or more solids together by surface attachment, either alone or in conjunction with another substance or process. It is of course true that although preliminary *Markman* rulings may have issued, a court's claim construction can be modified at any time up until a jury's verdict is rendered. See *Jack Guttman, Inc. v. Kopykake Enter., Inc.*, 302 F.3d 1352, 1361 (Fed. Cir. 2002) ("District courts may engage in a rolling claim construction, in which the court revisits its interpretation of the claim terms as its understanding of the technology evolves."). In this instance, however, having carefully considered the matter, I find no need to modify my earlier construction of the term "adhesive."

occur through that process does not exclude the possibility that the SSP formulation represents an adhesive rather than a primer. It may well be that, notwithstanding this fact, the SSP formulation is independently capable of bonding two surfaces together, and is therefore not a mere primer, serving only to enhance bond strength. Consider, for example, a situation in which when either substance A or substance B is applied to two surfaces alone, bonding may occur, whereas application of both substances A and B together results in a stronger bond. In this example both of those substances could properly be regarded as an adhesive, instead of one or the other being considered as a primer.

As the foregoing reflects, the record now before the court exposes a sharp controversy concerning whether or not SSP's formulations constitute an adhesive, in which case there would be no infringement, or a primer, a conclusion which would support a finding of infringement. In the end, which of the parties' positions regarding the formulations utilized by SSP should ultimately be adopted is a question ill-suited for resolution on motion for summary judgment, instead implicating issues of fact that can only be resolved by the trier of fact. ILT's motion for summary judgment on the question of infringement is therefore denied.

D. Invalidity

Among the defenses raised by SSP, in answer to ILT's infringement allegations, is the contention that certain of the claims of the two patents in suit are invalid as anticipated, on the basis of obviousness, and/or for failing to meet the requirements of 35 U.S.C. § 112. Both parties now request the entry of summary judgment with respect to anticipation and obviousness. In its motion for summary judgment on its invalidity defense and counterclaim, SSP argues that Claim 1 of the '939 Patent is anticipated by the Chou Patent; dependent Claims 2-15 and 24 of that patent are anticipated and/or obvious; independent Claim 18 and dependent Claims 19-20 of the '939 Patent are obvious; and independent Claims 1, 6, 8 and 20 and dependent Claims 2-5, 7, 9-15, 19 and 21 of the '335 Patent are invalid as obvious. In its motion for summary judgment on SSP's invalidity defense and counterclaim, ILT argues that none of the asserted claims, including Claims 18-20 of the '939 Patent and Claims 1 and 4-7 of the '335 Patent, are either anticipated by any of the cited prior art, or obvious. In addition, ILT seeks summary judgment dismissing SSP's section 112 invalidity defense and related counterclaim.

1. Relevant Prior Art

In support of its invalidity defense and counterclaim, SSP cites several pieces of prior art, including (1) the Chou Patent previously referenced; (2) U.S. Patent No. 3,950,206, issued to Adachi *et al.* on April 13, 1976 (“Adachi Patent”); (3) U.S. Patent No. 4,499,148 issued to Goodale *et al.*, on February 12, 1985 (“Goodale Patent”), a patent disclosed during the prosecution of the two patents in suit and thus considered by the PTO; (4) U.S. Patent No. 3,088,847 issued to A.N. Pines on May 7, 1963 (“Pines Patent”); (5) U.S. Patent No. 4,312,693, issued to Salensky *et al.*, on January 26, 1982 (“Salensky Patent”); and (6) U.S. Patent No. 4,096,013, issued to Lutzmann, *et al.* on June 20, 1978 (“Lutzmann Patent”).¹⁴ Relying heavily upon the opening and rebuttal expert reports of R.J. Del Vecchio, SSP argues that the Chou Patent anticipates certain claims of the ’939 Patent and, either alone or in combination with other pieces of art referenced, renders virtually all of the ’939 and ’335 Patent claims obvious.

¹⁴ SSP’s motion papers also cite U.S. Patent No. 3,108,898, issued to Nietzsche, *et al.* on October 29, 1963 (“Nietzsche Patent”) and an article authored by F.D. Egitto and L.J. Matienzo, published in the IBM JOURNAL OF RESEARCH AND DEVELOPMENT and entitled “Plasma Modification of Polymer Surfaces for Adhesion Improvement” (“IBM Article”) as relevant prior art. However, neither is referenced in Del Vecchio’s reports.

a) Chou Patent

The Chou Patent, which bears the title “Method for Enhancing the Adhesion of Polymer Surfaces Bi-water Vapor Plasma Treatment,” describes a means of promoting the adhesion of a first polymer surface to a second polymer surface by treating at least one of the polymer surfaces with water vapor plasma. Chou Patent, 3:16-20. The invention disclosed in that patent relates to a process for obtaining improved peel strength of a first polymer layer to a second polymer layer. *Id.* at 3:30-44.

b) Adachi Patent

The Adachi Patent, entitled “Method for Heat-Bonding Polyester Films or Sheet-Like Structures and Said Polyester Films or Sheet Like Structures,” describes a method for heat bonding a polyester film directly with another film or shaped article of polyester at a temperature below melting point, using a corona discharge treated polyester film. See Adachi Patent, Abstract. The Adachi Patent generally describes corona discharge treatment as a methodology for ionizing surfaces to make them more receptive to bonding.

c) Goodale Patent¹⁵

¹⁵ The Goodale Patent was disclosed by the inventors to the PTO as a piece of prior art that failed to achieve the desired result. See, e.g., '939 Patent, 1:64-

The Goodale Patent, entitled “Composite Materials of Silicone Elastomers and Polyolefin Films, and Method of Making,” generally involves composite materials that are formed of bonded silicone elastomers and polyolefin films and used in a variety of settings including, notably, for use in “catheters, closures for piercings by medical needles, and medical containers” The Goodale Patent discloses a process through which relatively high molecular weight silicone elastomer compounds may be chemically bonded to normally inert polyolefin films such as polypropylene and high or low density polyethylene.

d) Pines Patent

The Pines Patent is entitled “Aminoalkyl Silicon Compounds as Bonding Agents for Resins to Metal,” and generally describes a process of bonding polymeric materials to metals. The patent is directed to a method of treating metal strips, panels and wires with aminoalkyl silicone solutions, coating them with an uncured electrical insulatory resin, and

2:25. According to the inventors the process taught in Goodale was ineffective at consistently obtaining a strong bond between the two polyolefin surfaces involved in light of the existence of a narrow flange on the open top caps, and further the use of polyolefin silicone elastomer laminate, as opposed to a silicone elastomer alone, made penetration with a needle difficult, thereby creating health and safety concerns and interfering with the use of automatic sampling equipment. '335 Patent, 2:1-29; '939 Patent; 1:64-2:25.

then curing the resin to increase adhesion of the coating to the metal.

e) Salensky Patent

The Salensky Patent, entitled “Bonding of Polyurethane to Silicone Rubber,” describes a process through which silicone rubber is treated with certain gas plasma at low temperatures to improve the adhesion of a polyurethane coating to a silicone rubber, in order to render the silicone rubber more adhesive to polyurethane coatings following exposure to the gas plasma. According to Salensky, the gas plasma specified can be produced by any known means such as a radio frequency plasma generator.

f) Lutzmann Patent

The Lutzmann Patent, entitled “Method for Bonding Sheets in Air by Alternating Discharge and Apparatus for Same,” describes a process by which two or more chemically dissimilar and non-compatible films may be bonded together to form a composite sheet by subjecting them simultaneously to a high voltage electric corona discharge of a selected intensity.

In his two reports, SSP’s expert opines that Claims 2 and 8 of the ’939 Patent are rendered obvious by the Chou Patent, in combination with

the Goodale and/or Lutzmann Patents; Claims 3 and 4 are rendered obvious by the Chou Patent, in combination with the Goodale and/or Pines Patents; Claims 5 and 6 are rendered obvious by the Chou Patent, in combination with the Pines Patent; and Claim 7 is rendered obvious by the Chou Patent, in combination with the Goodale and/or Lutzmann and/or Salensky Patents. With respect to the '335 Patent, he opines that Claims 2, 3, and 19 are rendered obvious by the Chou Patent, in combination with the Goodale and/or Lutzmann Patents; Claims 4, 6, and 7 are rendered obvious by the Chou Patent, in combination with the Pines and/or Goodale Patents; Claim 5 is rendered obvious by the Chou Patent, in combination with the Pines Patent; and Claims 8, 15, 20, and 21 are rendered obvious by the Chou Patent, in combination with the Adachi and/or Lutzmann Patents.

2. Application of Controlling Legal Principles

(a) Presumption of Validity

The invalidity arguments raised by SSP must be analyzed against the backdrop of the independent presumption of validity that, under 35 U.S.C. § 282, attaches to each claim contained within a regularly issued patent. *Cont'l Can Co., USA, Inc., v. Monsanto Co.*, 948 F.2d 1264, 1266-

67 (Fed. Cir. 1991). Given this presumption, a “party asserting invalidity not only has the procedural burden of proceeding first and establishing a prima facie case, but the burden of persuasion on the merits remains with that party until final decision.” *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1534 (Fed. Cir. 1983); see also *ConMed Corp. v. Erbe Electromedizin GmbH*, 241 F. Supp. 2d 187, 192 (N.D.N.Y. 2003) (Hurd, J.) (citing, *inter alia*, *Stratoflex*), *vacated due to settlement*, No. 00-CV-987, 2004 WL 1576596 (N.D.N.Y. June 29, 2004). Any party seeking to overcome this presumption of validity must do so by clear and convincing evidence. *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1377 (Fed. Cir. 2002); see also *Ralston Purina Co. v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 1573-74 (Fed. Cir. 1985).

(b) Determination of Which Claims Remain in Issue

ILT’s complaint in this action generally alleged defendants’ infringement of the ’939 and ’335 Patents. See Complaint (Dkt. No. 1). SSP counterclaimed, asserting that “[o]ne of more of the claims of the ’939 Patent and the ’335 Patent are invalid” *inter alia*, as obvious, anticipated, or for failure to comply with the requirements of section 112. Amended Answer (Dkt. No. 19), Counterclaim Count 2. ILT has since

winnowed down the claims in controversy in its infringement cause of action, now asserting only infringement of Claims 1 and 4-7 of the '335 Patent and Claims 18 through 20 of the '939 Patent. Before turning to the specifics of the parties' invalidity contentions, I must first decide which of the '939 and '335 Patent claims remain in issue.

In their papers and the Del Vecchio expert reports, defendants have addressed a majority of the claims of the two patents in suit. In speaking to the issue of validity in its motion papers, by contrast, ILT has addressed only a limited number of claims, all of which involve the bonding of septums and caps. A threshold question therefore exists as to whether an actual case or controversy is presented, sufficient to confer jurisdiction upon the court to examine the validity of the unasserted claims of the two patents in suit.

In order to establish a basis for a court to entertain a request for declaratory judgment under 28 U.S.C. § 2201 in a patent infringement setting, a party must suffer from a reasonable apprehension of suit. *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 840 F.2d 902, 905-06 (Fed. Cir. 1988). "The actual controversy requirement precludes a declaration about the validity of claims unless the defendant objectively has a

‘reasonable apprehension that it will face an infringement suit’ on those claims.” *Grain Processing Corp.*, 840 F.2d at 906 (quoting, *inter alia*, *Jervis v. Webb Co. v. Southern Sys., Inc.*, 742 F.2d 1388 (Fed. Cir. 1984)).

While easily stated, this test is often difficult to apply. At one end of the spectrum, of course, is the situation presented by the clear abandonment of infringement allegations such as, for example, where a covenant not to sue is given by a patentee, dispelling any “reasonable apprehension” of suit. *Grain Processing Corp.*, 840 F.2d at 906; *see also Lifetime Prods., Inc. v. Correll, Inc.*, 323 F. Supp. 2d 1129, 1151 (D. Utah 2004). Mere withdrawal of infringement claims, with no assurance against suit in the future, however, does not suffice to divest a court of jurisdiction to examine the validity of other claims. *See Shelcore, Inc. v. Durham Indus., Inc.*, 745 F.2d 621, 624 (Fed. Cir. 1984) (holding that the plaintiff’s voluntary dismissal of one claim of the patent at issue did not remove the court’s jurisdiction of the issue of validity as to that claim because defendant’s validity claim “put all of the claims in issue”).

Trial courts have reached varying conclusions regarding how to apply the Federal Circuit’s guidance concerning this issue, including through its decisions in *Grain Processing Corp.* and *Shelcore*. When

faced with the question a district judge in Delaware concluded that absent a formal covenant not to sue, there remains a reasonable apprehension of suit even as to unasserted claims, providing a basis for the court to exercise jurisdiction to entertain a declaratory judgment counterclaim. *Biacore, AB v. Thermo Bioanalysis Corp.*, 79 F. Supp. 2d 422, 454 (D. Del. 1999). In another case, by contrast, while finding itself bound to follow the Federal Circuit's decision in *Shelcore*, as a matter of discretion a judge in the Eastern District of New York declined to exercise jurisdiction over declaratory judgment counterclaims where the plaintiff did not withdraw the claims in dispute from the infringement suit until after trial had commenced. *Mech. Plastics Corp. v. Unifast Indus. Inc.*, 610 F. Supp. 1073, 1074 (E.D.N.Y. 1985).

In this case, ILT has provided no concrete assurance that it will not pursue any of the unasserted claims against SSP in the future. Accordingly, and notwithstanding the fact that, through its litigation conduct, ILT has removed the unasserted claims from issue in its infringement case, the court retains the power to examine the validity of those unasserted claims. *Shelcore*, 745 F.2d at 624.

(c) Anticipation

One way in which a patent claim may be held invalid is through a finding of anticipation. A claim is invalid as anticipated if “the invention was patented or described in a printed publication in this . . . country . . . more than one year prior to the date of the application for patent in the United States[.]” 35 U.S.C. § 102(b). Under this statutory provision, “[a] patent is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention.” *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citing *Lewmar Marine, Inc. v. Bariant, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987)).

As the Federal Circuit has noted,

invalidity by anticipation requires that the four corners of a single, prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation.

Advanced Display Sys., Inc. v. Kent State Univ., 212 F.3d 1272, 1282 (Fed. Cir. 2000), *cert. denied*, 532 U.S. 904, 121 S. Ct. 1226 (2001). In simplistic terms, it has been said anticipation is the mirror image of infringement. *Lenmar Marine, Inc.*, 827 F.2d at 748 (“The inquiry as to anticipation is symmetrical with the inquiry as to infringement of a patent.”) (internal quotation marks omitted). Accordingly, a patented invention that

would infringe another patent, if issued later, anticipates the subject patent if it comes first. *Knapp v. Morss*, 150 U.S. 221, 228, 14. S. Ct. 81, 84 (1893) (“[T]hat which infringes, if later, would anticipate, if earlier.”) (internal quotation marks omitted).

Whether a patent claim is anticipated is a question of fact. *Advanced Display Sys., Inc.*, 212 F.3d at 1281. And, because it implicates invalidity and constitutes an affirmative defense, to prevail, an accused infringer must establish the elements of anticipation by clear and convincing evidence. See *i4i Limited P’ship v. Microsoft Corp.*, 598, F.3d 831, 848 (Fed. Cir. 2010); *Ralston Purina Co.*, 772 F.2d at 1574.

The ’939 Patent discloses a method of bonding a cured elastomer to a plastic or metal surface. While, in opposition to SSP’s claim of anticipation, ILT attempts to cabin that method to bonded caps, the first seventeen of the twenty-four claims of that patent make no mention of a cap. When those seventeen claims of the ’939 Patent are properly considered as broadly written, SSP makes a fairly compelling case for anticipation when those claims are compared to the Chou Patent. Claim 1 of the ’939 Patent, for example, discloses the following:

- 1) A method of directly bonding a previously cured elastomer comprised primarily of rubber type

material to a plastic, comprising:

ionizing a surface upon said cured elastomer, thereby forming a first activated area;

ionizing a surface upon said plastic, thereby forming a second activated area;

placing said first activated area in contact with said second activated area;

applying pressure to the first and second activated areas in contact thereby forming a bond directly between said elastomer and said plastic without the use of an intervening layer of adhesive or plastic material.

'939 Patent 5:24-37. By comparison, Claim 1 of the Chou Patent reads as follows:

1. A method comprising:

providing a first and second polymer body;

treating at least a part of the surface of at least one of said first and said second polymer bodies with a water vapor containing plasma; and

contacting the treated surface of at least one of said first and said second polymer bodies with at least a part of the surface of the other of said first and said second polymer bodies.

Chou Patent, 10:22-30. In the '939 Patent specification, it is noted that while the preference is for exposure to a corona electrode in order to effectuate ionization of the plastic and elastomer surfaces, it is acknowledged that ionization can also be achieved by other means, including through use of a flame, or plasma discharge. '939 Patent, 2:66-3:25. Examples of the polymers referenced in the Chou Patent include polyurethanes, phenolics, polyethylenes, polysiloxanes and polyisobutylenes. Chou Patent, 5:51-6:19. Polysiloxanes, such as a polydimethylsiloxane, are elastomers that constitute silicone rubber. See SSP Exh. G (Dkt. No. 92) (Del Vecchio Report) ¶ 61. Polyisobutylene represents an elastomer, more commonly known as butyl rubber. *Id.* The '939 Patent, in turn, notes that “the term plastic refers to both thermosetting and thermoplastic materials, examples being phenolics and polyolefines.” '939 Patent 3:2-4. The '939 Patent further provides that “[e]xamples of elastomers include, but are not limited to, silicone rubber, SBR rubber, butyl rubber and viton rubber.” '939 Patent, 3:13-15.

While this presents a close case, a reasonable factfinder could conclude that if the method disclosed in Claim 1 of the Chou Patent had come after and been practiced following the '939 Patent, infringement

would nonetheless not be stated. Missing in Claim 1 of the Chou Patent is application of pressure to form a bond, *directly* between the two substances without any intervening layer of adhesive or plastic material as required in Claim 1 of the '939 Patent. For this reason I conclude that the record demonstrates a genuine issue of material fact as to whether that Claim 1 of the '939 Patent, and similarly by definition those other claims of the patent that are dependent on Claim 1, are anticipated by the Chou Patent. Accordingly, SSP's motion for summary judgment addressed to the issue of anticipation is denied as to independent Claim 1 of the '939 Patent, and dependent Claims 2-15 and 24 of that patent.

As for ILT's motion for summary judgment, ILT seeks entry of summary judgment dismissing SSP's defense and counterclaim of invalidity based on anticipation as it relates only to Claims 18-20 of the '939 Patent and Claims 1 and 4-7 of the '335 Patent. Notably, SSP does not argue, however, either in its motion papers or through its expert's reports, that any of these particular claims are invalid as anticipated. In any event, each of those claims specifically relates to bonding of a cured elastomer septum to an open top cap, something that is lacking in the Chou Patent, as well as the other asserted prior art. Accordingly,

because none of the prior art cited by SSP contains each of the limitations contained with Claims 18-20 of the '939 Patent and Claims 1 and 4-7 of the '335 Patent, by definition those claims are not anticipated, and ILT is therefore entitled to summary judgment on this issue.

d) Obviousness

A patent claim is invalid as obvious if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a); see also *Merck & Co.*, 395 F.3d at 1372-73. In considering the issue of obviousness, a factfinder must engage in an objective analysis informed by several factors, including (1) the scope and content of the prior art; (2) the differences between the prior art and the claimed invention; (3) the level of ordinary skill in the art; and (4) secondary considerations, such as commercial success, long felt but unmet need, failure of others, and unexpected results. *Graham v. John Deere Co.*, 38 U.S. 1, 17, 86 S. Ct. 684, 695 (1966); see also *KSR Int’l Co.*, 550 U.S. at 399, 127 S. Ct. at 1374 (“While the sequence of [these factors] might be reordered in any particular case,

[they] continue to define the inquiry that controls.”); *Mintz v. Dietz and Watson, Inc.*, 679 F.3d 1372, 1375-76 (Fed. Cir. 2012).

Courts are encouraged to use an “expansive and flexible approach” to determine whether an invention would have been obvious to a person skilled in the art, guided by functionality and common sense rather than rigidity. *KSR Int’l Co.*, 550 U.S. at 401, 127 S. Ct. at 1739; *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007). If a court determines the claimed subject matter is obvious under the *Graham* analysis, then the claim under review is invalid under section 103. *KSR Int’l Co.*, 550 U.S. at 407, 127 S. Ct. at 1734.

In cases involving the combination of familiar elements in a patent in accordance with known methods, the Supreme Court has emphasized that an invention likely will be obvious when it simply elicits predictable results. *Id.* at 1739, 1740. Similarly, where a technique is used to improve a device and a person of ordinary skill in the art recognizes that similar devices would be improved in the same way, the technique is obvious unless it is beyond that person’s skill. *Id.* at 1740. In other words, “[i]f a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *Id.*

A patent comprised of multiple elements, however, “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.* at 1741; *see also Grain Processing Corp.*, 840 F.2d at 907 (“In determining obviousness, the inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the invention as whole for which patentability is claimed.”) (internal quotation marks omitted). When engaging in an obviousness analysis, a court should “identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Int’l, Co.*, 550 U.S. at 402, 127 S. Ct. at 1741. This necessarily may require an examination of interrelated teachings of multiple patents, the effects of demands experienced by the design community or existing in the marketplace, and the background knowledge of a person with ordinary skill in the art. *Id.* at 418, 1740-41. For example, a patent’s subject matter may be considered obvious to a person of ordinary skill in the art if a known problem in the field existed at the time of the invention for which an obvious solution is presented by the patent’s claims. *Id.* at 419-20, 1741-42. On the other hand, “[i]f the prior art teach away from

combining known elements in the manner claimed by the invention at issue, discovering a successful way to combine them is less likely to be obvious.” *In re Omeprazole Litig.*, No. M-21-81, 2007 WL 1576153, at *124 (S.D.N.Y. May 31, 2007). Neither the motivation nor the purpose of the patentee controls whether the subject matter of a patent claim is obvious; rather, the “objective reach” of the patent dictates the analysis. *KSR Int’l Co.*, 550 U.S. at 419, 127 S. Ct. at 1741-42.

To avoid the distortion of hindsight, “the decision maker must step backward in time and into the shoes worn by [the person of ordinary skill in the art] when the invention was unknown and just before it was made.” *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566 (Fed. Cir. 1987). Common sense encourages courts to consider that a person of ordinary skill in the art will “pursue known options” where there is “a finite number of identified, predictable solutions” given that an individual of ordinary skill is “a person of ordinary creativity, not an automaton.” *KSR Int’l Co.*, 550 U.S. at 420-21, 127 S. Ct. At 1742. When assessing obviousness, however, caution must be taken to avoid combining elements of prior art through the bias of hindsight when those elements otherwise would not have been combined but for the creativity and insight

of the inventor. *Id.* at 421, 1742; *Graham*, 383 U.S. at 36, 86 S. Ct. at 703. Consideration of the fourth *Graham* factor, with its focus upon objective indicia of non-obviousness, can “help inoculate the obviousness analysis against hindsight,” *Mintz*, 679 F.3d at 1378, and to “resist the temptation to read into the prior art the teachings of the inventions in issue[.]” *Graham*, 383 U.S. at 36, 86 S. Ct. 684 (internal citations and quotation marks omitted).

SSP has set forth a plausible argument in support of its obviousness claim, particularly with respect to the non-cap specific claims of the '939 Patent. As was previously noted, in an effort to avoid the pitfalls of both anticipation and obviousness, ILT has attempted to narrow the scope of the invention in issue to specimen caps with penetrable septums. It is clear that the need for an adhesive-free specimen cap appears to have motivated the inventors, and led them to develop their process for manufacturing bonded caps and to apply for the two patents in suit. While the '335 patent claims accordingly reference caps, however, seventeen of the twenty-four claims contained within the '939 Patent make no mention of caps, instead disclosing a method of bonding a cured elastomer to a plastics or metal surface, without limiting the usefulness of the invention to

specimen caps. Moreover, when describing the relevant art, the parties have agreed on a formulation that addresses the physics and chemistry of bonding without any required expertise relative to the manufacture of caps of the type produced by ILT and SSP. This readily distinguishes the matter from such cases as *Mintz*, in which the Federal Circuit criticized the trial court for failing to appreciate the importance of familiarity or experience with meat products in addressing a patent integrating a stockinette into a netting to make a new type of meat encasement. See *Mintz*, 679 F.3d at 1375-76.

In its motion, SSP argues that it has successfully shouldered the burden of demonstrating that the patent claims in dispute are obvious, by clear and convincing evidence, and that no reasonable factfinder could conclude otherwise. As ILT argues, however, many of the prior art references offered by SSP to support its obviousness argument are not readily apparent as being analogous to the invention in this case, either because they are in very different fields of endeavor or they are not reasonably pertinent to the problem confronted by the inventors, or both. See *In re Klein*, 647 F.3d at 1348 (“A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the

claimed invention. Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not with the field of the inventor's endeavor, whether the reference is reasonably pertinent to the particular problem with which the inventor is involved." The fields of endeavor implicated in the prior art cited by SSP run the gamut, and include microelectronics (Chou); face masks (Salensky); plastic films (Adachi); wrapping material (Lutzman); electrical installation (Pines); priming agents (Nitszche); and films for food packaging, electrical installation, resins for photoresists, advance composites possessing superior mechanical properties, and a variety of biopolymers (IBM Article). This is a factor weighing against a finding of obviousness. See *In re: Klein*, 647 F.3d at 1343, 1348 (Fed. Cir. 2011); *Panduit Corp.*, 810 F.2d at 1568.

With respect to Claims 1-15 of the '939 Patent, which – judging from ILT's motion papers – are apparently not addressed in the report generated by its expert, no reasonable factfinder could conclude that those claims are not obvious, either based upon the Chou Patent alone or

in combination with the other relevant cited prior art.¹⁶ Claim 1 of the Chou Patent, for example, teaches six elements which, considered together, describe a method of bonding two cured polymer surfaces through use of water vapor plasma, causing ionization. In simple terms, the Chou Patent describes a process of ionization of one or both of the elastomer surfaces to be bonded and bringing them together under pressure without the use of an adhesive. As is demonstrated by the Del Vecchio report, the elements of independent Claim 1 of the '939 Patent would be obvious to a person of ordinary skill in light of the Chou Patent. In addition, Claims 2-15 of the '939 Patent, which depend directly or indirectly upon Claim 1, would similarly be obvious to a person of ordinary skill in the art when the Chou Patent is considered together with other cited prior art. Claim 2, for example, recites the method of Claim 1 “wherein said first and second activated areas are placed in contact immediately after formation of said first activated area.” '939 Patent, 5:38-40. The Goodale Patent similarly provides for bringing ionized polymer surfaces together promptly following ionization. Claim 3 of the '939 Patent

¹⁶ Interestingly, ILT did not submit a report of its expert, Patrick Mather, Ph.D., either in support of its summary judgment motion on invalidity or in opposition to SSP's motion addressing the same issue.

would add a primer to the second activated area prior to contact, a matter which is obvious when the Chou Patent is considered in combination with the Goodale Patent and the Pines Patent, both of which reference primer materials or coatings. Likewise, according to Del Vecchio, a person of ordinary skill in the art would understand the concept of drying the second activated area after adding a primer before placing it in contact with the second activated area, as specified in Claim 4 of the '939 Patent.

Claim 5 of the '939 Patent is dependent upon, and narrows, Claim 3 by specifying that the “primer comprises approximately a 1% solution of an aminosilane.” The use of such a material as a primer was not only well known in the art at the time of the invention, but is taught by the Pines Patent. Similarly, Claim 6, which is dependent upon Claim 5 and specifies that the aminosilane is to be selected from a specified group, is obvious when Chou is considered in combination with the Pines Patent.

Dependent Claim 7 of the '939 Patent recites the method of Claim 1 and specifies that the desired ionization is achieved by a process selected from a group of flame, corona or plasma discharge treatment. The use of water and vapor plasma, as taught by the Chou Patent, renders

dependent Claim 7 obvious in view of that prior art.¹⁷ Dependent claim 8, which recites the method of Claim 7 “wherein said ionization is achieved by exposing said elastomer and said plastic to a corona discharge electrode”, is also obvious in view of Chou, in combination with both Goodale and Lutzmann, which teach the use of a corona discharge to achieve ionization.

Dependent Claim 9 of the '939 Patent, which recites the method of Claim 1 and specifies the amount of pressure to be applied, would appear to be obvious in view of the Chou Patent since, according to Del Vecchio, while the Chou Patent does not describe a specific quantum of pressure to be administered, the choice of 3.5 kg/cm², as recited in Claim 9, would be an obvious design choice to one skilled in the art, as evidenced by use of that figure in the Adachi Patent. Dependent Claim 10 again recites the method of Claim 1 and provides for the application of heat during the course of the bonding process. The Chou Patent discloses a method of bonding through placing ionized surfaces under both heat and pressure,

¹⁷ Even if not rendered obvious by the Chou Patent alone, dependent Claim 7 is obvious when the Goodale Patent, which describes the use of a corona discharge; the Lutzmann Patent, involving “high voltage, electrical corona discharge treatment”; and the Salensky Patent, specifying the use of “gas plasmas” using “oxygen, nitrogen, carbon dioxide, air and helium”, are considered.

therefore rendering Claim 10 obvious.

Dependent Claim 11 of the '939 Patent recites the method of Claim 1, providing further that the plastic involved "comprises a polyolefin." The Chou Patent describes the use of a polyolefin, such as a polyethylene, in its bonding method and therefore renders dependent Claim 11 obvious. Similarly, dependent Claim 12 recites the method of Claim 1 wherein the plastic comprises a "phenolic plastic." Once again, Claim 1 of the Chou Patent describes the use of phenolics and therefore renders Claim 12 of the '939 Patent obvious. Similarly, dependent Claim 13 recites the method of Claim 1 "wherein said plastic comprises a derivative of urea compounds." Claim 1 of the Chou Patent describes the use of polyurethanes and therefore renders Claim 13 obvious for the same reasons.

Dependent Claim 14 of the '939 Patent recites of method of Claim 1 wherein the rubber material involved is selected from a group consisting of "silicone rubber, SP rubber, butyl rubber, natural rubber and viton rubber." As was noted above, the use of polyisobutylenes is disclosed in Claim 1 of the Chou Patent. According to expert Del Vecchio, a polyisobutylene is an elastomer more commonly known as butyl rubber, and

polydimethylsiloxane is a type of polysiloxane constituting silicone rubber. Claim 14 is therefore also rendered obvious by consideration of the Chou Patent. Similarly, Claim 15 of the '939 Patent recites a method of Claim 14 "wherein said rubber type material comprises silicone rubber." The Chou Patent describes the use of a polydimethylsiloxane, which constitutes silicone rubber. Claims 14 and 15 of the '939 Patent are therefore similarly rendered obvious.

In sum, I conclude that Claims 1-15 of the '939 Patent are invalid as obvious, and that no reasonable factfinder could conclude otherwise. As to the remaining claims of the '939 Patent and all claims set forth within the '335 Patent, however, because genuine issues of fact exist concerning the issue of obviousness the entry of summary judgment as to those claims is not warranted.¹⁸ The question of whether a person of ordinary skill in the art would find it obvious to apply the principles forming the basis of the Chou Patent to bonding septums to caps, when combined with other pertinent prior art, presents a fact intensive inquiry. To make that determination, the factfinder must (1) determine whether the prior art in question is analogous, (2) examine the differences presented in the

¹⁸ SSP's expert has not expressed an opinion concerning obviousness with regard to Claims 16, 17, 21, 22 or 23 of the '939 Patent.

prior art from the invention disclosed, (3) ascertain the reasons why the Chou method was not applied earlier to bonded caps, and (4) consider the commercial success associated with the practicing of the inventions disclosed in the two patents in suit. Conspicuously absent from the analysis of SSP's expert is consideration of the external, objective factors indicating non-obviousness, a factor deemed by the Federal Circuit to play a critical role helping to avoid the influences of hindsight. *Mintz*, 679 F.3d at 1378. One wonders why, for example, in the face of SSP's obviousness claims, the process and method disclosed in the '335 and '939 patents was not in earlier widespread use in the bonded cap industry to avoid the potential for contamination by adhesives sought to be addressed by the inventors. In a similar vein, SSP's obviousness analysis fails to consider the commercial success of ILT's product embodiment of the patent process and method. Questions of fact also exist as to whether, at the time of the invention, there existed motivation to combine two or more of the relevant prior art references to arrive at the result disclosed in the disputed patents.

In sum, while the record demonstrates no issue of facts precluding the entry of summary judgment declaring Claims 1-15 of the '939 Patent

to be invalid as obvious, issues of fact preclude the entry of summary judgment in favor of either side on the question of obviousness with respect to the remaining claims of the two patents in suit.

e) Section 112

Included in SSP's defense of invalidity is a claim that the patents in suit fail to meet the requirements of 35 U.S.C. § 112. In its summary judgment motion, ILT urges dismissal of this portion of SSP's invalidity defense, arguing that the two patents in suit meet the written description requirements of section 112 and are not impermissibly indefinite. SSP counters, based largely upon the opinions of its expert, R.J. Del Vecchio, that the claims of those patents are fatally indefinite since a person of ordinary skill in the art would not necessarily readily distinguish between a primer and adhesive, as those terms have been construed by the court. In further support of its claim of indefiniteness, SSP also raises questions as to whether, and if so to what extent, materials other than adhesives and plastics can be present as part of a direct bond, and whether there is an upper limit as to the amount of time necessary to form a bond, absent the use of a primer.

The requirements for a patent specification are set forth in 35 U.S.C.

§ 112. That section provides, in pertinent part, as follows:

(a) In general. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

(b) Conclusion. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. § 112. Section 112(a) is conventionally regarded as requiring that a specification disclose both a written description of the invention and the manner and process of making it, the latter requirement to be judged by whether the specification enables a person of ordinary skill in the art to practice the invention. See *Ariad Pharm., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1344 (Fed. Cir. 2010) (“We . . . hold that § 112, first paragraph, contains two separate and description requirements: a written description [i] of the invention, *and* [ii] of the manner and process of making and using the invention.”) (internal quotation marks and alterations omitted) (emphasis in original); *Univ. of Rochester*, 358 F.3d at 923 (“[I]t is also true that the [written description] requirement must still be met in some

way so as to describe the claimed invention so that one skilled in the art can recognize what is claimed.”) (internal quotation marks omitted).

Section 112(b) overlays a requirement of definiteness upon a patent’s claims. *Halliburton Energy Serv., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008).

The focal point of SSP’s section 112 defense is the claim that the two patents in suit fail to meet the definiteness requirement of section 112(b). That provision requires that a patent specification “shall conclude with one or more claims particularly pointing out and distinctly claiming subject matter which the applicant regards as his invention.” 35 U.S.C. § 112(b). As can be seen, unlike section 112(a), with its emphasis upon a patent’s specification as a whole, section 112(b) requires the court to gauge the adequacy of the claims of a particular patent claim. “A determination that a patent claim is invalid for failing to meet the definiteness requirement in [35 U.S.C. § 112(b)] is a legal question” *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344 (Fed. Cir. 2007); *see also Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004). In light of the presumption of validity, a party seeking to establish indefiniteness pursuant to section 112(b) must show facts

supporting that conclusion by clear and convincing evidence. *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1331 (Fed. Cir. 2010) (citing *Young*, 492 F.3d at 1345); *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005); see also *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1574 (Fed. Cir. 1985).

The definiteness inquiry is focused upon whether a person of ordinary skill in the art would understand what is claimed by the patentee. *Enzo Biochem*, 599 F.3d at 1332. That requirement mandates that “the scope of [a patent’s] claims be sufficiently definite to inform the public of the bounds of the protected invention.” *Halliburton Energy Servs.*, 514 F.3d at 1249; see also *Datamize, LLC*, 417 F.3d at 1347 (“[T]he purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee’s right to exclude.”) (citation omitted). This claim-definiteness requirement is intended to ensure that patent claims are “sufficiently precise to permit a potential competitor to determine whether or not he [or she] is infringing.” *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003) (quoting *Morton Int’l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470 (Fed. Cir. 1993)). As the

Supreme Court has observed, “[i]t has long been understood that a patent must describe the exact scope of an invention and its manufacture to secure to [the patentee] all to which he is entitled, [and] to apprise the public of what is still open to them.” *Markman*, 517 U.S. at 373, 116 S. Ct. at 1387 (internal quotation marks omitted) (alterations in original). A claim satisfies the definiteness mandate when one skilled in the art understands the claim’s parameters as read in light of the specification. *Personalized Media Commc’ns, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 705 (Fed. Cir. 1998) (“If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.”) (quoting *Miles Lab., Inc. v. Shandon, Inc.*, 997 F.2d 879, 875 (Fed. Cir. 1993)).

Despite these well-established principles, “[t]he definiteness requirement, however, does not compel absolute clarity. Only claims ‘not amenable to construction’ or ‘insolubly ambiguous’ are indefinite.” *Datamize, LLC.*, 417 F.3d at 1347 (quoting *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1358 (Fed. Cir. 2003)). “Thus, the definiteness of claim terms depends on whether those terms can be given any reasonable meaning.” *Datamize, LLC.*, 417 F.3d at 1347; *see also*

Amgen, 314 F.3d at 1342 (“[A] claim is not indefinite merely because its scope is not ascertainable from the face of the claims. Rather, a claim is indefinite . . . if it is insolubly ambiguous, and no narrowing construction can properly be reached.”) (internal quotation marks and citations omitted). It should also be noted that the fact that claim construction proves a formidable task does not invariably lead to a conclusion that the definiteness requirement of section 112(b) has not been met. *Halliburton*, 514 F.3d at 1249 (citing *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001)).

An accused infringer claiming invalidity as the basis of indefiniteness faces a heavy burden. “[T]his standard is met where an accused infringer shows by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and prosecution history, as well as her knowledge of the relevant art area.” *Halliburton*, 514 F.3d at 1249-50. A finding of indefiniteness is warranted “only if reasonable efforts of claimed construction prove futile[.]” *Bankcorp Servs., L.L.C.*, 359 F.3d at 1371. Close questions concerning whether a patent claim is sufficiently definite must be resolved in favor of the patentee. *Id.* “The common thread [in

Federal Circuit cases involving indefiniteness] is that claims were held indefinite only where a person of ordinary skill in the art could not determine the bounds of the claims, i.e., the claims were insolubly ambiguous.” *Halliburton*, 514 F.3d at 1249.

In this instance, the definiteness argument now being raised by SSP cannot be firmly addressed without resolution of disputed facts, including those addressed in SSP’s expert reports. According to Del Vecchio, for example, a person of ordinary skill in the art would be unable to distinguish between an adhesive and a primer, as those terms are utilized in the two patents in suit. As was previously noted, according to Del Vecchio, a person of ordinary skill in the art similarly would not be able to determine the upper time limit within which two ionized or otherwise activated surfaces must be joined in order to form the desired bond without the use of an adhesive. Further, Del Vecchio concludes that a person of ordinary skill in the art would be unable to determine from the patents themselves how much “intervening material” could be permissibly present between the two joined surfaces in order to still qualify without negating the presence of a “direct bond.” Given these pivotal questions I am not prepared at this juncture to state that no reasonable factfinder

could find indefiniteness, utilizing the foregoing standard, when reviewing the claims of the '335 and '939 Patents, as argued by SSP. Accordingly, I deny ILT's motion for summary judgment dismissing SSP'S defense of invalidity based upon the failure to meet the requirements of section 112.

E. Equitable Estoppel

Among the affirmative defenses set forth in SSP's answer, as amended, is its assertion that ILT's claims are barred, wholly or in part, by waiver, laches, prosecution laches and/or estoppel, including equitable estoppel. While SSP has since withdrawn its defenses of waiver, laches, and prosecution laches, it now seeks a finding, as a matter of law, that ILT is estopped from pursuing its claims of patent infringement in this action, based upon its inaction, leading SSP to reasonably conclude that ILT had abandoned its claims against SSP.

Equitable estoppel, like laches, is a defense "addressed to the sound discretion of the trial court." *A.C. Aukerman Co. v. R.L. Chaides Co.*, 960 F.2d 1020, 1041 (Fed. Cir. 1992) (en banc). The defense of estoppel is one that may properly be resolved on a motion for summary judgment, provided there are no genuine issues of fact surrounding its three essential elements. *A.C. Aukerman Co.*, 960 F.2d at 1043. If the

defense is established to the trial court's satisfaction, a patentee may be barred from seeking relief on a claim of patent infringement. *Id.* at 1041.

In order to support a finding of equitable estoppel an accused infringer must establish that (1) through misleading conduct, the patentee has led the alleged infringer to reasonably infer that it does not intend to enforce its patent rights against the alleged infringer; (2) the accused infringer has relied upon that conduct; and (3) as a result of its reliance the alleged infringer will be materially prejudiced if the patentee is permitted to proceed with its infringement claims. *A.C. Aukerman Co.*, 960 F.2d at 1028, 1042; *Ecolab, Inc.*, 264 F.3d at 1371.

As can be seen, at the heart of the equitable estoppel defense is the question of whether a person in the alleged infringer's position could reasonably have inferred that the patentee did not intend to pursue infringement claims against the alleged infringer. *A.C. Aukerman Co.*, 960 F.2d at 1042. To succeed based upon the defense of equitable estoppel at the summary judgment stage, an accused infringer must establish that the inference it drew, to the affect that the patentee would not pursue infringement claims against it, was the only possible inference to be drawn from the circumstances presented. *Id.* at 1044.

The first essential element, centering upon the patentee's conduct, can be met through conduct taking the form of statements, actions or inaction. *A.C. Aukerman Co.*, 960 F.2d at 1042. The first prong of the equitable estoppel test may also be satisfied by silence, provided "that the silence is accompanied by another factor lending to the conclusion that the silence was sufficiently misleading to amount to bad faith." *ABB Robotics, Inc. v. GMFanuc Robotics Corp.*, 52 F.3d 1062, 1064 (Fed. Cir. 1995); *A.C. Aukerman*, 960 F.2d at 1041. "Silence alone will not create an estoppel unless there was a clear duty to speak or somehow the patentee's continued silence re-enforces the defendant's inference from the plaintiff's known acquiescence that the defendant will be unmolested." *A.C. Aukerman*, 960 F.3d at 1043-44 (citation omitted).

The essence of the first element is whether, through the patentee's conduct, the accused has reasonably drawn the inference that the patentee does not intend to take action to enforce its patent rights. The longer the delay in acting becomes, the stronger the inference of inaction on the part of the patentee becomes. *A.C. Aukerman*, 960 F.3d at 1044. Although the length of delay in filing suit may bear upon whether the patentee's conduct has been misleading, as SSP argues, one

distinguishing factor between laches and equitable estoppel is that the latter defense does not require a showing of passage of an unreasonable period of time in filing suit. *Id.* at 1041-42.

To prove the second element of equitable estoppel - reliance - an “accused infringer must show that, in fact, it substantially relied on the misleading conduct of the patentee in connection with taking some action.” *A.C. Aukerman Co.*, 960 F.2d at 1042-43. Although the two are frequently confused, “[r]eliance is not the same as prejudice or harm.” *Id.* at 1043. More specifically, “[t]o show reliance, the infringer must have had a relationship or communication with the [patentee] which lulls the infringer into a sense of security” *Id.*

Either of two types of prejudice can suffice to support the third element of the equitable estoppel defense – economic prejudice or defense prejudice. *Ecolab, Inc.*, 264 F.3d at 1371-72. Economic prejudice results from a change in economic position of the accused infringer that would not have occurred, had suit been brought earlier. *Id.* at 1371. Such conduct as the hiring of new employees, the purchase or modification of equipment, and expansion of manufacturing sales and marketing capacities related to a new line resulting from a business

decision to capitalize on a market opportunity with a belief that the accused produce is non-infringing, however, does not represent the type of economic prejudice necessary to support of finding of estoppel. *Id.* at 1371-72. Defense prejudice stems from an impairment of the ability to present a full and fair defense on the merits based upon the delay in the patentee's pursuit of its claims. *Id.* at 1372.

SSP was first placed upon notice of ILT's claim of infringement of the '335 and '939 Patents through receipt of a "cease and desist" letter in July 2007, demanding that SSP halt its infringing activities, provide information regarding the number of allegedly-infringing caps sold and revenue generated, and give assurance that it would refrain from future infringing activities. After an ensuing exchange of letters, a meeting was held on November 8, 2007 between representatives of the two companies, including Alan Gee, a principal in ILT and a co-inventor listed on the '335 and '939 Patents, to address ILT's claims of infringement. During that meeting SSP's representatives generally described the process utilized in its manufacture of bonded caps, but declined ILT's request for information concerning the specific chemical formulations involved. SSP's counsel subsequently wrote to ILT's attorneys on November 13, 2007, suggesting

that the information provided by SSP during the meeting should allow ILT to conclude that SSP's products were non-infringing, and closing as follows:

Thus, we ask that ILT formally withdraw its infringement claims as soon as possible. We would appreciate receiving written confirmation of ILT's agreement to withdraw its claims against SSP no later than Wednesday, November 28, 2007.

Defendants' Exhibits (Dkt. No. 68) Exh. G. ILT did not respond to this request.

Following the November 2007 meeting, ILT continued its investigation of SSP's products. To further that investigation ILT's president, Paul Petrosino, placed an order with SSP in March of 2008 to purchase bonded caps. Alan Gee Decl. (Dkt. No. 85-2) ¶ 4. SSP, however, failed to fill that order. *Id.* As a result, ILT was forced to obtain SSP bonded caps from certain of its customers in order to test the caps for the presence of any adhesive between the cap and the septum. *Id.* ¶ 5. When independent testing failed to detect the presence of any adhesive in the SSP caps, ILT determined that it had sufficient evidence of infringement, and commenced this action on November 16, 2009.

SSP likens its situation to the circumstances presented in *Scholle*

Corp. v. Black Hawk Molding Co., Inc., 133 F.3d 1469 (Fed. Cir. 1998), a case in which the Federal Circuit upheld a district court's finding of equitable estoppel. The course of conduct by the parties in that case, however, is materially distinguishable from the situation presented in this action. In *Scholle Corp.*, the accused infringer, after receiving a letter in December of 1991 threatening suit for patent infringement, immediately began efforts to design around the patentee's patent with an eye toward producing a non-infringing substitute product. In October 1992, the accused infringer filed a patent application for the new product, and in February of 1993 began marketing that product. At a meeting held in April of 1993, the accused infringer's chairman and president provided samples of the new product to the patentee's chief executive officer, and informed him that the accused infringer considered the new cap to be outside of the scope of the patentee's patent, and that it intended to market the cap and would consider the new product as non-infringing unless the patentee advised the accused infringer otherwise. Samples of the new product were later forwarded to patentee's chairman, and by July of 1993 both the patentee's patent counsel and the patent inventor were aware of the accused infringer's product. Despite these circumstances, and multiple

intervening contacts between high-level corporate officials from both companies, the patentee offered no response to the accused infringer's inquiry between the 1993 meeting and February 22, 1996, when the patentee filed suit for patent infringement. In granting summary judgment the district court found, and the Federal Circuit agreed, that the patentee's conduct consisted of more than mere silence, and instead also included affirmative action such as prior threats to sue the accused infringer and regular discussions regarding the patentee's patent infringement litigation against another competitor, concluding that the totality of circumstances indicated a course of dealings whereby the accused infringer was reasonably led to believe that the patentee did not intend to press infringement claims based upon the new product. *Scholle Corp.*, 133 F.3d at 147-73.

In this instance, by contrast, based upon the record now before the court, I am unable to conclude that the "*only* possible inference" to be drawn by SSP from ILT's inaction is that it had abandoned its intention to pursue infringement claims against SSP. *A.C. Auckerman Co.*, 960 F.2d at 1044 (emphasis in original). Accordingly, I deny SSP's motion for summary judgment precluding plaintiff's infringement claims on the basis

of equitable estoppel.¹⁹

IV. SUMMARY AND ORDER

The pending motions in this patent infringement action, present a variety of issues, both procedural and substantive. Addressing first the procedural aspects, I conclude that ILT's motion to strike the expert reports of R.J. Del Vecchio, an expert retained by SSP, and to preclude him from testifying at trial, should be denied based upon ILT's failure to demonstrate that the testimony would not appropriately be admitted under Rule 702 of the Federal Rules of Evidence together with *Daubert* and its progeny, and the lack of any prejudice associated with the fact that his expert opinions may have been described in far greater detail in his rebuttal report than in the initial report disclosed to ILT. Turning to the parties' substantive motions, I find that genuine, triable issues of material fact exist and preclude the entry of summary judgment on the questions of infringement, invalidity, and equitable estoppel, except as to Claims 1-15 of the '939 Patent, which I find to be invalid as obvious, as a matter of

¹⁹ In light of my finding of issues of fact surrounding the first element I have not addressed whether SSP has proven that it relied upon ILT's inaction, and no reasonable factfinder could conclude otherwise, nor have I reviewed SSP's assertion of economic prejudice to determine whether it meets the governing standard under the third element of the controlling test.

law; Claims 18-20 of the '939 Patent, and Claims 1 and 4-7 of the '335 Patent, which I find, as a matter of law, not to be invalid as anticipated.

Accordingly, it is hereby

ORDERED as follows:

1) SSP's motion to strike ILT's reply memorandum (Dkt. No. 107) as unauthorized under the court's local rules is DENIED.

2) ILT'S motion to strike the opening and rebuttal reports of R.J. Del Vecchio (Dkt. No. 94) is DENIED.

3) ILT's motion for summary judgment on the issue of infringement (Dkt. No. 70) is DENIED.

4) SSP's motion for summary judgment on the issue of equitable estoppel (Dkt. No. 68) is DENIED.

5) SSP's motion for summary judgment on the issue of invalidity (Dkt. No. 68) is GRANTED, in part, the court finding that Claims 1-15 of the '939 Patent are invalid as obvious, but is otherwise DENIED.

(6) ILT's motion for summary judgment on the question of patent invalidity (Dkt. No. 69) is GRANTED, to the extent that SSP's defense and counterclaim of invalidity based upon anticipation is DISMISSED with respect to Claims 18-20 of the '939 Patent and Claims 1 and 4-7 of the

'335 Patent (Dkt. No. 69), but is otherwise DENIED.

7) A final pretrial conference will be held in this action on December 5, 2012 at 11:30 a.m. at the United States Courthouse in Albany, New York. The parties should be prepared during that pretrial conference to discuss the anticipated length, date and appropriate location regarding a trial in this action, as well as any issues anticipated to arise during trial.

A handwritten signature in black ink, appearing to read "David E. Peebles", written over a horizontal line.

David E. Peebles
U.S. Magistrate Judge

Dated: November 2, 2012
Syracuse, NY