

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

RHODIA CHIMIE and RHODIA INC.,        )  
  )  
  Plaintiffs,    )  
  )  
  v.                ) Civil Action No. 01-389 (KAJ)  
  )  
PPG INDUSTRIES, INC.,                )  
  )  
  Defendant.    )

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**MEMORANDUM OPINION**

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Wilmington, Delaware  
January 23, 2004

**JORDAN, District Judge**

I. INTRODUCTION

This is a patent infringement case. Jurisdiction is proper under 28 U.S.C. §§ 1331 and 1338. On June 8, 2001, plaintiffs Rhodia Chimie and Rhodia Inc. (collectively, “Rhodia”) filed a complaint alleging that defendant PPG Industries, Inc. (“PPG”) was infringing U.S. Patent No. 6,013,234 (the “234 patent”). (Docket Item [“D.I.”] 1.) Presently before me are three motions for summary judgment filed by PPG. (D.I. 215, 218, 222.) For the reasons that follow, PPG’s motion for summary judgment of non-infringement (D.I. 215) will be granted.<sup>1</sup>

II. BACKGROUND

The ‘234 patent, entitled “Silica Pigment Particulates,” issued on January 11, 2000 and names Jean-Louis Ray and Maurice Coudurier as inventors. (D.I. 217, Ex. 1.) The patent is assigned to plaintiff Rhodia Chimie.<sup>2</sup> (*Id.*) According to the patent-in-suit, the silica particulates claimed therein are “useful as silica pigments and reinforcing fillers for elastomeric matrices.” ‘234 patent, col. 1, lns. 25-29. In particular, the ‘234 patent discloses solid and homogeneous dispersible silica particulates in bead or spheroidal

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<sup>1</sup>PPG’s motion for summary judgment of invalidity based on lack of enablement and failure to disclose best mode (D.I. 218) and its motion for summary judgment that the ‘234 patent is unenforceable due to inequitable conduct (D.I. 222) will be denied as moot.

<sup>2</sup>The ‘234 patent stems from a line of continuation patent applications tracing to an application filed on April 14, 1980. The patent has a foreign priority date of April 13, 1979. *Rhodia Chimie v. PPG Industries, Inc.*, 2003 U.S. Dist. LEXIS 18695 at \*3 (D. Del. Oct. 9, 2003) (claim construction).

form. *Id.*, col. 3, Ins. 29-32. The invention also claims “a novel process for the preparation of such readily dispersible siliceous particulates.” *Id.*

Rhodia alleges that PPG is directly infringing claims 1-4 and 9-11 of the ‘234 patent by making, using, selling, offering for sale, or importing into the United States its Hi-Sil SC-72, Hi-Sil SC-72C<sup>3</sup>, and Hi-Sil SC-60M<sup>4</sup> silica products. Rhodia is also asserting infringement against the “fractions,”<sup>5</sup> or intermediates, of PPG’s SC-72 and SC-72C products.<sup>6</sup> (D.I. 216 at 3.) According to PPG, its accused silica products are used as carriers for other materials, such that liquids and resins may be loaded onto the silica by blending the material with the silica so that the silica absorbs the material. (*Id.* at 4.)

On October 9, 2003, I issued an Opinion and Order construing the disputed claim terms in the ‘234 patent. (D.I. 201, 202); *Rhodia Chimie v. PPG Industries, Inc.*, 2003 U.S. Dist. LEXIS 18695 at \*9 (D. Del. Oct. 9, 2003) (claim construction).<sup>7</sup> Independent

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<sup>3</sup>PPG’s SC-72 and SC-72C silica products are made at its Lake Charles, Louisiana facility. (D.I. 216 at 3.)

<sup>4</sup>PPG’s SC-60M silica product is made at its Altamira, Mexico facility and imported into the United States. (D.I. 216 at 3.)

<sup>5</sup>These fractions are called the “chamber fractions” and the “baghouse fractions,” referring to the initial location of each fraction during production. (D.I. 216 at 3-4.)

<sup>6</sup>The fractions of the SC-60M silica products are not in this case, as they are produced in Mexico and not imported into the United States. On November 5, 2003, Rhodia identified three other PPG silicas it sought to add to this case: Hi-Sil 2000P, 180H-M, and an experimental PPG silica known as LXR268K. (D.I. 216 at 4.)

<sup>7</sup>The claim construction opinion followed correspondence in mid-July of 2003 from me to the parties (D.I. 177) specifically seeking information pertinent to the DIN

claim 1 makes representative use of the claim terms which are the basis of PPG's motion for summary judgment of non-infringement (D.I. 216 at 1):

1. Dry, **dust-free and non-dusting**, solid and homogeneous **atomized precipitated silica particulates** essentially spheroidal in geometrical configuration, said particulates having a mean particle size in excess of 150 microns, a fill density in compacted state in excess of 0.200, a BET surface area ranging from 100 to 300 m<sup>2</sup>/g, and a CTAB surface area ranging from 100 to 350 m<sup>2</sup>/g.

'234 patent, col. 13, Ins. 61-67 (emphasis added). I construed "dust-free and non-dusting" to mean a level of dust formation associated with the silica particulates of the '234 patent, as measured in percentage weight according to DIN 53 583, that has a fines content value less than or equal to 13 and weight loss by abrasion value less than or equal to 0.5.<sup>8</sup> *Rhodia*, 2003 U.S. Dist. LEXIS 18695 at \*14 (footnote omitted). I construed "atomized precipitated silica particulates" to mean that a pulverized slurry of precipitated silica is spray dried using a liquid pressure nozzle as an atomizer to form the claimed silica particulates. (*Id.*) *Rhodia* filed a motion asking me to reconsider my

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standard described more fully herein (*infra* n.8) and an August 2003 teleconference (D.I. 192) in which I explicitly put the parties on notice of the importance that the DIN standard had attained in my approach to claim construction.

<sup>8</sup>"DIN 53 583 is an industrial standard provided by the Deutsches Institut für Normung e.V., a self-governing institution of trade and industry responsible for the preparation of National Standards in Germany, for measuring the fines content and weight loss by abrasion of pelletized carbon black used as fillers in the rubber processing industry. The inventors of the '234 patented silica made specific reference to that standard as a means of measuring the dust qualities of their silica. I am referring specifically to DIN 53 583 dated November 1969." *Rhodia*, 2003 U.S. Dist. LEXIS 18695 at \*14 n.3.

construction of these two claim terms on October 24, 2003, (D.I. 210), and I declined to do so on December 9, 2003 (D.I. 248).

PPG filed its motions for summary judgment on November 6, 2003, and briefing on them was complete by December 15, 2003. The extended discovery deadline in this case was December 22, 2003. On January 6, 2004, I received three submissions from Rhodia, including a Supplement to its Opposition to PPG's Motion for Summary Judgment of Non-Infringement (the "Supplement"). (D.I. 266.) The Supplement contains the results of Rhodia's DIN testing, and a second declaration and fourth expert report of its expert, Jonathan Bass, Ph.D., interpreting the DIN data. Whether or not the Supplement was properly a part of the record in this case was hotly contested by the parties at oral argument on PPG's motions for summary judgment. (1/12/04 Hearing Transcript ["Tr."] at 7:22-24; 36:7-14; 47:19-25; 48.) On January 16, 2004, I issued a Memorandum Order excluding the Supplement from the record, finding that its late submission would substantially prejudice PPG and delay this case from proceeding to trial on February 23, 2004. (D.I. 276.) Rhodia filed a motion for reconsideration (D.I. 281) of that ruling, which I have denied in a Memorandum Order issued today (D.I. 284).

### III. STANDARD OF REVIEW

Federal Rule of Civil Procedure 56 states that summary judgment should be granted when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c) (2003). The plain language of Rule 56(c) "mandates the entry of

summary judgment, after adequate time for discovery and motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which the party will bear the burden of proof at trial." *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-323 (1986) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986)).

The party moving for summary judgment has the burden of showing that there are no genuine issues of fact and that the movant is entitled to judgment as a matter of law. *Adickes v. S.H. Kress & Co.*, 398 U.S. 144, 151-60 (1970). The moving party also bears the responsibility of informing the court of the basis for the motion, and identifying those portions of the record which demonstrate the absence of a genuine issue of material fact. *Celotex*, 477 U.S. at 323. The burden then shifts to the nonmoving party to "set forth specific facts showing that there is a genuine issue for trial." Fed. R. Civ. P. 56(e); see also *Anderson*, 477 U.S. at 250.

A patent infringement analysis involves two steps: claim construction and application of the construed claim to the accused process or product. See *Markman v. Westview Instruments, Inc.*, 52 F.2d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). The court reviews the first step, claim construction, as a matter of law. See *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc). The second step, application of the claim to the accused product, is a question of fact. See *Mannesmann Demag Corp. v. Engineered Metal Prods. Co., Inc.*, 793 F.2d 1279, 1282 (Fed. Cir. 1986); see also *Kustom Signals, Inc. v. Applied Concepts, Inc.*, 264 F.3d 1326, 1332 (Fed. Cir. 2001) ("Patent infringement, whether literal or under the

doctrine of equivalents, is a question of fact.”). Summary judgment is appropriate in patent infringement suits when it is apparent that only one conclusion regarding infringement could be reached by a reasonable jury. See *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1323 (Fed. Cir. 2001) (citation omitted). In particular, “[s]ummary judgment of noninfringement is appropriate where the patent owner’s proof is deficient in meeting an essential part of the legal standard for infringement,” and “such failure...render[s] all other facts immaterial.” *Id.* (citing *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1537 (Fed. Cir. 1991)). Because the question of infringement is dispositive, I will focus on it in the following discussion, and I decline to address PPG’s challenges to the validity and enforceability of the ‘234 patent.

#### IV. DISCUSSION

PPG argues that its accused products do not meet the “dust-free and non-dusting” and “atomized precipitated silica particulates” limitations, and therefore, PPG’s accused products are not literally infringing the ‘234 patent as a matter of law.<sup>9</sup> (D.I. 216 at 11, 15.) PPG further argues that prosecution history estoppel prevents Rhodia from arguing that PPG’s accused products infringe the ‘234 patent under the doctrine of equivalents. (*Id.* at 12, 18.)

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<sup>9</sup>The issue of whether PPG’s accused products meet the “dust-free and non-dusting” limitation is dispositive, and because I find that PPG’s accused products do not infringe the ‘234 patent literally or under the doctrine of equivalents with respect to the “dust-free and non-dusting” limitation, I need not consider whether PPG’s accused products meet the “atomized precipitated silica particulates” limitation literally or under the doctrine of equivalents.

**A. “dust-free and non-dusting”**

**1. Literal infringement**

On May 6, 2002, PPG served upon Rhodia the results of the fines content and abrasion tests it conducted on PPG’s silica products using the November 1969 version of German standard DIN 53 583. (*Id.* at 5; D.I. 193, Ex. H.) PPG conducted its DIN testing on the following accused products: SC-72, SC-72C, SC-60M, LXR268K, 2000P, 180HM. (*Id.*) According to PPG’s DIN testing, all of the accused products have weight loss by abrasion values greater than 0.5%. (*Id.* at 6.) Therefore, PPG argues that none of the accused products meet the “dust-free and non-dusting” limitation, which requires that the weight loss by abrasion value is less than or equal to 0.5%, and the accused products do not literally infringe the ‘234 patent. (*Id.*) At oral argument, counsel for Rhodia took the position that, because PPG did not conduct DIN testing on the chamber and baghouse fractions of the SC-72 and SC-72C accused products, it is inappropriate to consider summary judgment with respect to those fractions. (Tr. at 29:2-6.)

PPG argues that Rhodia has not submitted any evidence of DIN testing in this case, (D.I. 216 at 12), an assertion which Rhodia cannot dispute. Indeed, in its response to PPG’s motion for summary judgment of noninfringement, Rhodia requested a continuance, under Federal Rule of Civil Procedure 56(f), to conduct DIN testing on PPG’s accused products. (D.I. 241 at 14.) As previously noted, Rhodia’s late submissions regarding DIN testing and Dr. Bass’s expert report were excluded from the

record.<sup>10</sup> (D.I. 276.) Though Rhodia recognizes that, given the claim construction on this point, the DIN testing is essential for it to demonstrate literal infringement, (D.I. 241 at 15; Tr. at 35:17-21), Rhodia did not submit proof of DIN testing in a timely manner,<sup>11</sup> and has therefore failed to meet its burden of producing evidence to prove PPG's infringement.

Contrary to Rhodia's argument concerning the chamber and baghouse fractions of PPG's SC-72 and SC-72C silica products, it is not PPG's burden to disprove infringement. Because Rhodia has not come forth with any DIN testing data as to any of PPG's accused products, it has failed to prove an essential element of its case. See *Telemac*, 247 F.3d at 1323 (when patentee's "proof is deficient in meeting an essential

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<sup>10</sup>Dr. Bass testified that, as of December 18, 2003, Rhodia was still conducting its DIN tests and that he was not present while the tests were being conducted. (D.I. 269.) Further, Rhodia's DIN testing was not complete when the Supplement was submitted, as Dr. Bass "expect[ed] to receive a final report on the DIN testing on Thursday, January 8, 2004," four days before oral argument on PPG's motions for summary judgment. (D.I. 266, Attachment A, ¶ 8.)

<sup>11</sup>As is more fully expressed in the Memorandum Order issued today (D.I. 284) denying Rhodia's Motion for Reconsideration (D.I. 281) of my ruling denying the admissibility of the revised expert report and data submitted by Rhodia on the last day of discovery, my determination that Rhodia submitted its evidence too late to be considered in the case is not a normative judgment on Rhodia's approach to the litigation. That the information was submitted when it was is simply a statement of historical fact. My decision that it came too late to be considered as part of the record is not intended to be punitive but only to be procedurally fair. It is, as a general matter, clearly preferable to resolve disputes on their merits with all parties being satisfied that they were given the opportunity to adduce all the evidence they wanted. But procedural fairness is a critical component of the administration of justice and its observance cannot be ignored. *Cf.* Fed. R. Civ. P. 26(e)(1) (requiring supplementation at "appropriate intervals" of discovery responses so that opposing party has correct information about expert's positions).

part of the legal standard for infringement” it “render[s] all other facts immaterial”).

Literal infringement is found only when each and every limitation of a claim is present in the accused product. *See Telemac*, 247 F.3d at 1323. Rhodia has no evidence that PPG’s accused products meet the “dust-free and non-dusting” limitation in claim 1 of the ‘234 patent. Therefore, I find that PPG’s accused products do not literally infringe the ‘234 patent.

## **2. Infringement under the doctrine of equivalents**

PPG argues that Rhodia is not entitled to any scope of equivalents with respect to the limitation “dust-free and non-dusting.” (D.I. 216 at 12.) Specifically, PPG points to the prosecution history of the ‘234 patent, stating that Rhodia relied on the limitation “dust-free and non-dusting” in its attempts to overcome the Examiner’s repeated prior art rejections. (*Id.* at 13.) PPG argues that, based on the prosecution history, it is clear that Rhodia added the “dust-free and non-dusting” limitation to the claims of the ‘234 patent in order to avoid prior art, which is a well-settled basis for invoking prosecution history estoppel to infringement under the doctrine of equivalents. (*Id.*)

Rhodia’s original United States application for the ‘234 patent was filed on April 14, 1980. At that time, original claim 1 did not contain any reference to the “dust-free or non-dusting” limitation. (D.I. 107, Ex. 5.) In response to the Examiner’s first Office Action rejecting all of the original claims in light of the prior art Brandt reference<sup>12</sup>, Rhodia substituted entirely new claims, and, for the first time, incorporated the “dust-

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<sup>12</sup>Brandt, et al., “Process for preparation of a sprayable precipitated silicic acid suspension,” U.S. Patent No. 4,094,771 (issued June 13, 1978).

free and non-dusting” limitation. (*Id.*, Ex. 8.) Rhodia argued that the prior art “powdered silicas are notorious for their propensity to form dust” and that its claimed “precipitated silica particulates...are devoid of the aforesaid disadvantages and drawbacks.” (*Id.*) Throughout the lengthy prosecution of the ‘234 patent, Rhodia relied on the “dust-free and non-dusting” limitation to distinguish the claimed invention from the prior art. (*Id.*, Exs. 10-20.)

There is no question that Rhodia’s amendments during prosecution were made to narrow the literal scope of the claims, and that the reason for the amendment “was a substantial one relating to patentability.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 344 F.3d 1359, 1366 (Fed. Cir. 2003) (citing *Pioneer Magnetics, Inc. V. Micro Linear Corp.*, 330 F.3d 1352, 1356 (Fed. Cir. 2003)). It is clear from the prosecution history that amending the claims to include the “dust-free and non-dusting” limitation was an important factor in Rhodia’s efforts to overcome the Examiner’s prior art rejections. Thus, Rhodia must overcome the presumption that it “has surrendered all territory between the original claim limitation and the amended claim limitation.” *Id.* at 1367 (citing *Festo v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 740 (2002) (“*Festo VIII*”)).

Rhodia may rebut that presumption if

the alleged equivalent would have been unforeseeable at the time of the narrowing amendment,...the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent in question, or...there was ‘some other reason’ suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent.

*Id.* at 1369 (citing *Festo VIII*, 535 U.S. at 740-41). Rhodia argues that the amendment adding the “dust-free and non-dusting” limitation was tangential, that is was, in other words, “only peripheral or not directly relevant to the accused equivalents” because it “was added to distinguish the claimed microspheres from ‘prior art granules and powders’” and not from PPG’s accused products, which Rhodia characterizes as spray-dried silica microspheres.<sup>13</sup> (D.I. 241 at 21.)

I find that, based on the prosecution history, Rhodia has not established that it made the narrowing amendment for a “merely tangential reason.” *Festo*, 344 F.3d at 1370 (“whether the patentee has established a merely tangential reason for a narrowing amendment is for the court to determine from the prosecution history record...”). The prosecution history reflects, and Rhodia admits, that it amended the claims by adding the “dust-free and non-dusting” limitation in order to highlight the difference between “the dusty nature of [prior art] powder or pellets compared to the essentially spheroidal silica of the [invention claimed in the ‘234 patent].” (D.I. 107, Ex. 14; D.I. 241 at 21). Whether the silica particulates were “dusty” or “dust-free and non-dusting” was directly at issue during prosecution of the ‘234 patent. See *Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 347 F.3d 1355, 1360 (Fed. Cir. 2003) (“The boiling range and carbon content were at issue during prosecution, and were the direct, not tangential, reason for the narrowing amendments to these claim limitations.”) Thus, Rhodia has surrendered

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<sup>13</sup>Rhodia does not attempt to rebut the *Festo VIII* presumption under the “unforeseeability” or “some other reason” criteria.

all territory between the original claim language and the amended claim, which, based on my claim construction, encompasses any silica particulates that are “dusty,” that is, have a weight loss by abrasion value greater than 0.5%, as determined by the November 1969 DIN 53 583 standard. *Festo*, 344 F.3d at 1367. Because Rhodia amended the claims to avoid “dusty” prior art silica particulates, the amendment was not tangential; rather, it was central to the allowance of the claim, and Rhodia has not rebutted the presumption set forth in *Festo VIII*. See *id.* at 1369 (citing *Pioneer Magnetics*, 330 F.3d at 1357) (“[A]n amendment made to avoid prior art that contains the equivalent in question is not tangential; it is central to the allowance of the claim.”). Therefore, Rhodia is estopped from asserting that PPG’s accused products infringe the ‘234 patent under the doctrine of equivalents.<sup>14</sup>

## V. CONCLUSION

Rhodia may feel that it is being denied its day in court because of my ruling on the propriety of its supplementing the record with DIN data and an expert report. However, my construction of “dust-free and non-dusting” is so central to the case that a trial may yet occur, following the inevitable appeal.<sup>15</sup> It may be cold comfort, but at least

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<sup>14</sup>Because Rhodia cannot overcome the presumption of prosecution history estoppel, I need not consider its argument that PPG’s accused products infringe the ‘234 patent under the function-way-result test articulated in *Warner-Jenkinson Co. v. Hilton Davis Chem Co.*, 520 U.S. 17 (1997). (D.I. 241 at 17-18.)

<sup>15</sup>As I previously acknowledged, the construction of “dust-free and non-dusting” is narrow and incorporates specifics from the written description of the ‘234 patent. *Rhodia*, 2003 U.S. Dist. LEXIS 18695 at \*15. However, Rhodia’s proposed construction

Rhodia now has the prospect of obtaining a definitive ruling on the disputed claim construction without first having to incur the considerable expense of a full trial on the merits. Should the Federal Circuit alter the claim construction on appeal, the parties may then proceed to trial, confident that they have the correct claim construction in hand. See *Barmag Barmer Maschinenfabrik Ag v. Murata Machinery, Ltd.*, 732 F.2d 831, 835 (Fed. Cir. 1984) (“Where no genuine issue of material fact remains and the movant is entitled to judgment as a matter of law, the court should utilize the salutary procedure of [Federal Rule of Civil Procedure] 56 to avoid unnecessary expense to the parties and wasteful utilization of the jury process and judicial resources.”)

Based on the foregoing, PPG’s motion for summary judgment of noninfringement (D.I. 215) will be granted, to the extent that the court finds that PPG’s accused products are not infringing the ‘234 patent, literally or under the doctrine of equivalents, with respect to the “dust-free and non-dusting” limitation. An appropriate order will issue.

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employed the relative modifying phrase “very low,” which runs afoul of the requirement that patent claims “particularly point[ ] out and distinctly claim[ ] the subject matter which the applicant regards as his invention.” *Id.* (citing 35 U.S.C. § 112, ¶ 2.) By looking to the patent for guidance, I endeavored to give an appropriate construction to the claims. Whether I properly construed the claims is a question which will no doubt be presented to the Federal Circuit, and “[n]o purpose would be served by a trial since the correctness of a legal conclusion is [truly at issue].” *Barmag*, 731 F.2d at 839.