United States District Court,
D. New Hampshire.

PRESSTEK, INC,
v.
CREO, INC.

No. 05-cv-65-PB

March 30, 2007.

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MEMORANDUM AND ORDER

PAUL BARBADORO**, United States District Judge.**

Presstek, Inc., owner of U.S. Patent No. 5,353,705 (filed Sept. 22, 1993) ("the '705 Patent"), has sued Creo, Inc. and Creo Americas, Inc. (collectively "Creo"), claiming that Creo's lithographic printing plate, the Clarus WL, infringes its patent. Creo now moves for summary judgment on the infringement claim based largely on its interpretation of several disputed claim terms. In this Memorandum and Order, I construe the relevant disputed terms and deny Creo's motion for summary judgment.

I. *BACKGROUND*

A. *The* '705 Patent

Presstek's '705 Patent, entitled "Lithographic Printing Members Having Secondary Ablation Layers For Use With Laser Discharge Imaging Apparatus," discloses a multilayer lithographic printing plate suitable for laser imaging. During the imaging process, laser radiation causes one or more layers of the plate to ablate. FN1 As a result, imaged features are created on the plate that have a different affinity for ink than the unimaged features. After imaging, the plate is inked such that ink adheres to the oleophilic (ink accepting) surfaces on the plate. During printing, the inked plate comes into contact with a blanket cylinder in the press, which transfers the images to the paper or other medium.

FN1. "Ablate" is defined in the patent to mean "decomposes into gases and volatile fragments." '705 Patent col.5 ll.16-19 (Doc. No. 1-2).

1. ***The Patent Claims***

The '705 Patent contains one independent claim (Claim 1) and 17 dependent claims. Presstek bases its infringement claims on the independent claim and dependent Claims 2, 6, 11 and 12, which are reproduced below with the disputed terms in boldface:

1. A lithographic printing member directly imageable by laser discharge, the member comprising:

a. a topmost first **layer;** and

b. a second **layer** underlying the first **layer,** the second **layer** being characterized by ablative absorption of laser radiation;

c. a third **layer** underlying the second **layer,** the third **layer:**

i. being **substantially transparent to the laser radiation;**

ii. **being ablated only partially** in response to ablation of the second layer; and

iii. differing from the first layer in its affinity for at least one printing liquid selected from the group consisting of ink and a fluid that repels ink.

2. The member of claim 1 further comprising a mechanically strong, durable and flexible **substrate underlying the third layer.**

....

6. The member of claim 2 wherein the **substrate** is polyester.

....

11. The member of claim 1 wherein the first **layer** is oleophobic.

....

12. The member of claim 11 wherein the first **layer** is a coating comprising silicone.

2. ***The Specification***

The '705 Patent's specification compares imageable printing plates in the prior art to the lithographic printing plates claimed within the patent. It describes the problem of debris build-up and charring common in the prior art, which can result in compromised printing quality and the need for post-imaging cleaning. '705 Patent col.4, ll.36-55. The primary innovation of the disclosed plate is the inclusion of a "secondary ablation layer" that ablates only partially in response to heat generated by ablation of an overlying layer. Id. at col.4 ll.63-67. The patent claims that this innovation enables the rapid, efficient production of lithographic printing plates using laser equipment without the need for post-imaging cleaning. Id. at col.4 ll.59-70.

The specification discloses several preferred embodiments. FN2 The first embodiment, depicted in Figure 1, discloses a plate consisting of (1) a surface layer 100, (2) a radiation-absorptive layer 102, and (3) a secondary ablation layer 104, all three layers overlying (4) a substrate 106. Id. at col.7 ll.60-67. In this embodiment, secondary ablation layer 104 may, but need not, be adhered to substrate 106 by means of an adhesion promoting layer 108.

FN2. The embodiments are illustrated in the figures attached as an appendix to this Memorandum and Order.

In this embodiment, surface layer 100 and secondary ablation layer 104 exhibit opposite affinities for ink. Radiation-absorptive layer 102 absorbs radiation during laser imaging and, in response, fully ablates. Id. at col.8 ll.39-40. Ideally, secondary ablation layer 104 should ablate cleanly but only partially in response, that is, it should undergo rapid and uniform thermal degradation, evolving primarily gaseous decomposition products. Id . at col.5 ll.44-50, col.10 ll.25-26.

The specification provides examples of materials and processes that can be used to construct this embodiment. Substrate 106 is preferably mechanically strong, durable and flexible, and may be a polymer film, or a paper or metal sheet. Id. at col.11 ll.13-16. Preferred materials for secondary ablation layer 104 are polymeric materials that exhibit limited thermal stability. Id. at col.10 ll.26-30. Secondary ablation layer 104 is applied to or coated onto the substrate at a thickness adequate to avoid complete ablation. Id. at col.10 ll.37-40, col.11 ll.52-53. A composition made up of carbon black and nitrocellulose can be used for radiation-absorptive layer 102. Id. at col.9 ll.10-40. Surface layer 100 is a silicone polymer that repels ink in contrast to the oleophilic polyester of secondary ablation layer 104. Id. at col .8 ll.2-6.

In a second embodiment, depicted in Figure 2, the radiation-absorptive layer 102 can be a composite of more than one layer. Id. at col.9 ll.62-63. The patent teaches that this embodiment can be constructed by "coating the secondary ablation layer [104] onto a substrate, electron-beam evaporating an aluminum layer [114] thereon, electron-beam evaporating the TiO layer [112] onto the aluminum layer, and coating the surface layer onto the applied TiO layer." Id. at col.10 ll.1-7. Figure 2 can also be constructed by applying other disclosed materials to the secondary ablation layer using a wire-wound rod. Id. at col.11 ll.55-60. After drying, these coatings are deposited at 1 g/m^2. Id. at col.11 ll.60-62. The silicone coating is applied to this bilayer construction using a wire-wound rod. The coating is dried and cured to produce a uniform deposition of 2 g/m^2. Id. at col.11 ll .62-65.

In a third embodiment, depicted in Figure 3, the function of radiation-absorptive layer 102 is merged with that of surface layer 100. Id. at col.10 ll.12-15. The result is a surface layer 115 that combines the properties of the absorbing and surface layers.

In a fourth embodiment, depicted in Figure 4, a secondary ablation layer that "exhibits adequate mechanical properties" can be employed in sufficient thickness to also serve as a substrate. Id. at col.11 ll.45-50.

3. *The Prosecution History*

The '705 Patent was filed on September 22, 1993 as a continuation-in-part of U.S. Patent Application Serial No. 08/125,319. The prosecution history included a single office action from the U.S. Patent and Trademark Office, followed by an amendment.

Claim 1 as originally filed in the '705 application required three layers, with three sub-limitations for the third layer. (Creo's Memorandum in Support of Summ. J., Ex. 4, '705 Patent File History at P0000067, Doc. No. 51-6). Sub-limitation (c)(ii) in the initial application required that the third layer "exhibit limited thermal stability" rather than "ablate only partially" as found in the claim as issued. During prosecution, the Examiner rejected Claim 1 of the initial application as filed based on 35 U.S .C. s.s. 103 and 112. Id. at P0000093-98. The Examiner found that the initial claim was not patentable in light of U.S. Patent No. 4,054,094 and the vagueness of the language used. In response to the rejection of its claim, Presstek amended Claim 1 to its present form by amending sub-limitation (c)(ii) to require that the third layer be "ablated only partially" in response to ablation of the second layer. Id. at P00000108.

Figures 3 and 4 both originally included hand-written notations. The original version of Figure 4 included a handwritten notation indicating that layer 106 serves as both the "secondary ablation layer substrate." Id. at P0000075. Similarly, the original version of Figure 3 included hand-written notations indicating that layer 115 serves as both the "surface layer absorptive" layer. Id. During prosecution, the numerals and characters in Figs. 1-4 were objected to under 37 C.F.R. s. 1.84(p) as being difficult to read. Id. at P0000100. In response, the Applicant submitted "formal drawings" without the hand written notations. Id. at P0000117-121. The amended drawings appear in the patent as issued.

B. ***The Accused Device: The Clarus WL*** FN3

FN3. The parties have substantially different views concerning the characteristics of the Clarus WL. Where the parties disagree, I have adopted Creo's description of the device to the extent that it is supported by evidence in the record.

The Clarus WL is a multilayer lithographic printing plate suitable for laser imaging. It is composed of: (1) a topmost silicone layer, (2) a second underlying layer of carbon black/nitrocellulose, (3) a 6-7 micron thick third layer of amorphous Polyethylene Terephthalate ("PET") underlying the carbon black/nitrocellulose layer, and (4) a fourth layer of semi-crystalline PET underlying the amorphous PET layer. When the product is exposed to laser radiation, the carbon black/nitrocellulose layer ablates and produces imaged features in the plate that have a depth ranging from 1.2 to 2.0 microns. Because the top two layers of the product have a combined thickness of 1.3 microns, the imaging process produces features that extend from 0 to 0.7 microns into the amorphous PET layer.

II. *STANDARD OF REVIEW*

A. ***Summary Judgment***

Summary judgment is appropriate "if 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 a judgment as a matter of law." Fed.R.Civ.P. 56(c).

The party moving for summary judgment "bears the initial responsibility of ... identifying those portions of [the record] which it believes demonstrate the absence of a genuine issue of material fact." Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). Once the moving party has met its burden, the burden shifts to the adverse party to "produce evidence on which a reasonable finder of fact, under the appropriate proof burden, could base a verdict for it; if that party cannot produce such evidence, the motion must be granted." Ayala-

Gerena v. Bristol Myers-Squibb Co ., 95 F.3d 86, 94 (1st Cir.1996). The "adverse party may not rest upon the mere allegations or denials of the adverse party's pleading, but the adverse party's response ... must set forth specific facts showing that there is a genuine issue for trial." Fed.R.Civ.P. 56(e). *See also* Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 256 (1986).

B. ***Patent Infringement***

"A patent infringement analysis involves two steps: 1) claim construction; and 2) application of the properly construed claim to the accused product." Techsearch, L.L.C. v. Intel Corp., 286 F .3d 1360, 1369 (Fed.Cir.2002) (citing Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370 (1996)). I decide the first step, claim construction, as a matter of law. *See Id*. "To prove infringement, the patentee must show that the accused device meets each claim limitation, either literally or under the doctrine of equivalents." *Playtex Products, Inc. v. Procter & Gamble Co.,* 400 F.3d at 901, 906 (Fed Cir.2005). Determining whether the accused product meets each claim limitation is a question of fact. Techsearch, 286 F.3d at 1369-70. Summary judgment of non-infringement is appropriate "where the patent owner's proof is deficient in meeting an essential part of the legal standard for infringement, because such failure will render all other facts immaterial." Id. at 1369 (citations omitted).

C. ***Claim Construction***

The words of a patent claim "are generally given their ordinary and customary meaning." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed.Cir.2005), *cert. denied,* 2006 WL 386393 (U.S. Feb. 21, 2006).

To ascertain this meaning, I examine the so-called intrinsic evidence, including the claim language, the patent specification, and the prosecution history. Id. at 1313. The claim language is a useful starting point. *Id*. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id*. "Differences among claims can also be a useful guide in understanding the meaning of particular claim terms." *Id*. In addition, "claims 'must be read in view of the specification, of which they are a part.' " *Id*. at 1315 (quoting Markman, 52 F.3d at 978). In fact, the specification is usually " 'the single best guide to the meaning of a disputed term.' " *Id*. (quoting Markman, 52 F.3d at 979). Finally, the prosecution history should also be consulted to clarify "how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it otherwise would be." *Id*. at 1317. Extrinsic evidence such as dictionaries, treatises, and expert testimony may also be useful if "considered in the context of the intrinsic evidence." *Id*. at 1319.

Although there is "no magic formula or catechism for conducting claim construction," *Id*. at 1324, the Federal Circuit has made clear that " '[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.' " *Id*. at 1316 (quoting Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed.Cir.1998)).

III. *ANALYSIS*

Creo argues that it is entitled to summary judgment on Presstek's infringement claim because the Clarus WL does not have a third "layer" as is required by the '705 Patent's only independent claim. Alternatively, it argues that the Clarus WL does not infringe the '705 Patent even if it has a third layer of amorphous PET

because the third layer is not "ablated only partially" in response to ablation of the second layer. I address each argument in turn, construing the relevant disputed claim terms where necessary. FN4

FN4. Creo also argues that because the Clarus WL does not infringe independent Claim 1, it cannot be found to infringe dependent Claims 2, 6, 11, and 12. Because I deny Creo's motion as to Claim 1, summary judgment is not proper on dependent Claims 2, 6, 11 and 12. *See* Wolverine World Wide, Inc. v. Nike, Inc., 38 F.3d 1192, 1199 (Fed.Cir.1994).

A. *Layer*

1. *Claim Construction*

Creo's argument that the Clarus WL lacks a third "layer" of amorphous PET hinges on its proposed construction of this disputed term. Relying primarily on dictionary definitions, Creo argues that "layer" means "a uniform thickness of a material applied to a surface." Presstek denies that a layer must be either uniform or applied. Thus, it asserts that a layer is nothing more than "a thickness of a material." I adopt Presstek's proposed construction.

Creo cites definitions from two general purpose dictionaries and one technical dictionary to support its proposed construction. The American Heritage Dictionary of the English Language defines "layer" as "a single thickness of a material covering a surface or forming an overlying part or segment," 4th ed.2000, while the Oxford English Dictionary defines it as "a thickness of matter spread over a surface." 2d ed.1989. In the technical realm, Grant & Hack's Chemical Dictionary defines "layer" as "a mass of uniform thickness covering an area." 5th ed.1987.

These dictionary definitions do not resolve the interpretive problem. Instead, at most, they suggest the possibility that Creo's proposed interpretation could be correct. First, the cited definitions are themselves subject to various interpretations. For example, it is unclear whether "single," as used in the first definition, means "uniform," as Creo contends, or whether it means "one," as opposed to several. The definitions also fail to clarify whether the terms "covering a surface" or "spread over a surface" refer to the layer's method of construction or its relative position. Second, the idea that a layer must be either uniform in thickness or applied is not supported by other definitions, which suggest that a layer is "one thickness course, or fold laid or laying over or under another," Webster's Third New International Dictionary (1993), or "a sheet or thickness of a material, typically one of several, covering a surface, Compact Oxford Dictionary (3d ed). More fundamentally, dictionary definitions alone can never resolve a claim construction dispute because claim terms must be construed in the context in which they are used in the claims and specification. Accordingly, I turn to the language of the patent itself to discern the contextual meaning of the disputed term.

Although "layer" is used numerous times both in the claims and the specification, nowhere do the inventors use it in a way that suggests that a layer must be uniform. While the specification identifies application techniques that can be used to create layers of uniform thickness (*see, e.g.,* ' 705 Patent col.9 ll.37-39, col.10 l.4-5, col.11 ll.55-64), these references merely indicate that layers can be created in ways that produce layers of uniform thickness. They do not suggest that uniformity is a definitional characteristic of a layer. For similar reasons, the inventors' use of figures that are not drawn to scale to illustrate preferred embodiments does not suggest that a layer must be of uniform thickness simply because the figures depict layers that appear to be uniform.

Creo's argument that a "layer" must be applied suffers from similar deficiencies. While it is clear from numerous references in the claims and the specification that the layers specified in the invention can be created through application (*see, e.g.,* '705 Patent col.5 ll.55-68, col.11 ll.52-55, col.14 ll.3-4), these references do not imply that this is the only way that layers can be created. Layers obviously can be formed in other ways and the specification does not suggest that a thickness of a material that underlies another material cannot be a layer unless it is formed by application. The ' 705 Patent claims a device with layers having specified locations and properties. It does not claim any particular method of layer formation.

In summary, neither the intrinsic evidence nor the extrinsic evidence supports Creo's argument that a layer must be either uniform or applied. FN5 In each of its construction arguments, Creo attempts to use the characteristics of preferred embodiments to give the disputed claim term a meaning that it does not ordinarily have. This approach violates the core principle of claim construction that patent claims should not be arbitrarily limited by preferred embodiments. *See* Phillips, 415 F.3d at 1323. Accordingly, Creo's arguments are unavailing and I construe the term "layer" to mean "a thickness of a material."

FN5. Not surprisingly, the parties cite conflicting experts to support their respective positions. Although I have read their opinions, these self-serving reports effectively counter one another. As such, they do not influence my decision.

2. ***Application***

Having construed the term "layer," I must now determine whether Presstek has produced sufficient evidence that the Clarus WL has a third layer of amorphous PET.

Presstek relies solely on the opinion of its expert, Dr. Samuel P. Gido, to support its contention that the Clarus WL has a 6-7 micron thick layer of amorphous PET. (Presstek Opposition to Motion for Summ. J., Ex. 2, Doc. No. 60-4 ("Gido I")). Dr. Gido, in turn, bases his opinion on observations he made of the Clarus WL using selected area electron diffraction ("SAED"). Creo attacks Dr. Gido's conclusion by arguing that it is based on an insufficient number of samples to support a scientifically reliable conclusion. FN6 Although Creo does not characterize its argument in this way, it appears to contend that Dr. Gido's opinion is inadmissible under Fed.R.Evid. 702 and should be stricken. Once the opinion is excluded, it would most likely argue, what remains is not sufficient to withstand its summary judgment challenge.

FN6. Creo claims that Dr. Gido used SAED to examine only one location on each of three samples. According to Creo, the data collected by Dr. Gido is insufficient to support a scientifically reliable conclusion that the Clarus WL has a 6-7 micron thick layer of amorphous PET.

Because Dr. Gido did not make his expert disclosure until after Creo filed its opening summary judgment brief, Creo presented its challenge to Dr. Gido's testimony for the first time in its reply brief. While it is conceivable that I could resolve Creo's argument on a motion for summary judgment if the issue had been fully briefed, *see, e.g.,* Poulis-Minott v. Smith, 388 F.3d 354 (1st Cir.2004), I am unwilling to do so on the present record. When a party bases a summary judgment challenge on a contention that the opposing party's expert testimony is unreliable, it is generally advisable to accompany the summary judgment motion with a motion in limine pursuant to Fed.R.Evid. 104(a). *Reference Manual on Scientific Evidence,* 54-56 (2d

Ed.2000). Summary judgment can then be granted if the expert's testimony is excluded and the remaining evidence is insufficient to carry the opposing party's burden of proof. Because the parties have not briefed the Rule 702 issue in anything more than a cursory way, I decline to resolve it now and simply hold that Dr. Gido's opinion is sufficient to permit Presstek to withstand Creo's summary judgment challenge unless the opinion is ultimately determined to be inadmissible. Accordingly, I reject Creo's motion for summary judgment on this issue without prejudice to its right to renew the motion if Dr. Gido's opinion on this point is excluded.

B. ***Partial Ablation***

Creo next argues that it is entitled to summary judgment because Presstek has failed to produce any credible evidence that the third layer of the Clarus WL partially ablates. Presstek disputes Creo's proposed construction of "being ablated only partially" and contends that Dr. Gido's expert report demonstrates that the amorphous PET layer partially ablates during imaging.

1. ***Claim Construction***

The parties dispute the meaning of "being ablated only partially," as that phrase appears in Claim 1. Creo contends that the phrase means "a portion, but not all, of the third layer decomposes into gases and volatile fragments in a uniform manner with limited melting or formation of solid decomposition products." Creo bases this construction on the patent's internal definition of "ablate" and its disclosed preference for a third layer that cleanly ablates with only limited melting or formation of solid decomposition products. Presstek argues that the phrase means "a portion, but not all, of the third layer decomposes into gases and volatile fragments."

"It is well-established that the patentee can act as his own lexicographer," and that it may do so either expressly or by implication in the specification. Irdeto Access, Inc. v. Echostar Satellite Corp., 383 F.3d 1295, 1300 (Fed.Cir.2004). Where a patent defines a term by implication, I must be mindful of "the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim." Phillips, 415 F.3d at 1323. The Federal Circuit warns against the latter. *Id*.

The '705 Patent expressly defines "ablate" to mean "decompose into gases and volatile fragments." '705 Patent col.5 ll.16-19. The specification also states a preference for clean ablation of the secondary ablation layer and describes preferred materials that achieve this effect. '705 Patent col. 5 ll.44-54; col.6 ll.1-16. Although it is true, as Creo points out, that these preferences respond to problems associated with the prior art, they are preferences nonetheless. As such, it would be improper to treat them as limitations on the claims. *See, e.g.,* Phillips, 415 F.3d at 1323; Taskett v. Dentlinger, 344 F.3d 1337, 1340 (Fed.Cir.2003). Accordingly, I conclude that a person skilled in the art would understand the phrase "being ablated only partially," as used in Claim 1, to mean "a portion, but not all, of the third layer decomposes into gases and volatile fragments."

2. ***Application***

Having construed the disputed phrase, I must now determine whether Presstek has identified evidence sufficient to show that the Clarus WL's third layer partially ablates in response to ablation of the second layer.

Dr. Gido used Scanning Electron Microscopy ("SEM") and Atomic Force Microscopy ("AFM") to demonstrate that laser imaging creates features in the Clarus WL that partially extend into the amorphous PET layer. He then opined in a conclusory way that the depressions he observed in the amorphous PET layer are due to partial ablation rather than some other process. (Gido I at para.para. 81, 103, 134).

Creo again challenges Dr. Gido's opinion by arguing that it is unreliable and I resolve this argument in the same way. Dr. Gido's opinion on this point is sufficient to permit Presstek to withstand Creo's motion for summary judgment unless it is ultimately determined to be inadmissible. Accordingly, I deny Creo's motion for summary judgment on this issue without prejudice to Creo's right to renew its motion if Dr. Gido's opinion on this point is excluded. FN7

FN7. Creo has asked me to construe additional claim terms but I decline to do so at the present time because I need not do so to resolve the present motion.

III. *CONCLUSION*

For the reasons set forth in this Memorandum and Order, I deny Creo's motion for summary judgment (Doc. No. 51) without prejudice.

SO ORDERED.

Appendix

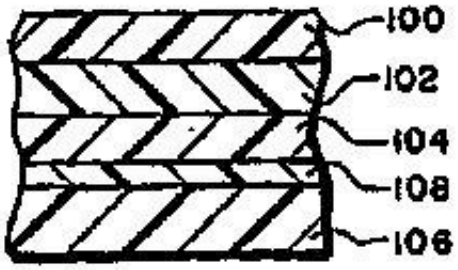


FIG. 1

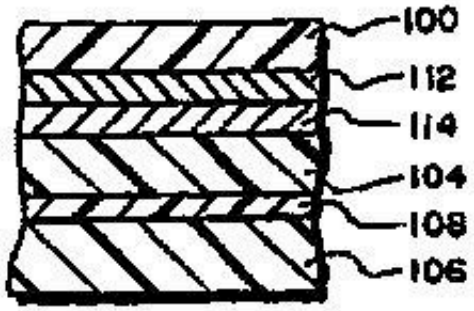


FIG. 2

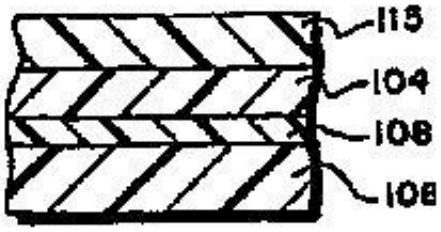


FIG. 3



FIG. 4

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