

JODI A. SCHWENDIMANN, and
NUCOAT, INC.,

Plaintiffs,

v.

NEENAH, INC.,
AVERY DENNISON CORPORATION,
AVERY PRODUCTS CORPORATION, and
SISER NORTH AMERICA, INC.

Defendants.

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MEMORANDUM OPINION

February 9, 2021
Wilmington, Delaware



STARK, U.S. District Judge:

Plaintiffs Jodi A. Schwendimann and NuCoat, Inc. (“Plaintiffs” or “Schwendimann”) filed suit against Defendants Neenah, Inc. and Avery Dennison Corporation on February 21, 2019 in Civil Action No. 19-361 (D.I. 1), alleging infringement of U.S. Patent Nos. RE41,623 (the “’623 patent”) (D.I. 108 Ex. 1); 7,749,581 (the “’581 patent”) (*id.* Ex. 2); 7,754,042 (the “’042 patent”) (*id.* Ex. 3); and 7,771,554 (the “’554 patent”) (*id.* Ex. 5). Plaintiffs filed a first amended complaint (D.I. 7) on February 27, 2019, alleging infringement of the same patents by Neenah, Inc. and Avery Products Corporation (together, “Avery”).

Plaintiffs also filed suit on a subset of the same patents against Siser North America, Inc. (“Siser”) on February 21, 2019 in Civil Action No. 19-362, specifically alleging infringement of the ’581 and ’042 patents. (C.A. No. 19-362 D.I. 1)

In separate, later-filed actions, Plaintiffs filed further suits against Avery and Siser. The Avery suit, C.A. No. 19-1364, was filed on July 22, 2019, asserting infringement of U.S. Patent Nos. 6,410,200 (the “’200 patent”) (D.I. 108 Ex. 6) and 6,723,773 (the “’773 patent”) (*id.* Ex. 7). (C.A. No. 19-1364 D.I. 1) The Siser suit, C.A. No. 19-1363, was filed the same day and asserts infringement of the same patents. (C.A. No. 19-1363 D.I. 1)

By a scheduling order issued on May 12, 2020 (C.A. No. 19-361 D.I. 48, 49), the Court consolidated the four actions. A further amended complaint against Avery was filed on July 1, 2020. (D.I. 60) This now-consolidated action is before the Court for claim construction.¹

Each patent shares the same written description and generally relates to the melting of polymers for the transfer of images. (D.I. 108 at 2) The patents-in-suit can be grouped into two categories: patents that facilitate the transfer of images onto light-colored fabrics (the “Light

¹ All further docket citations are to the docket index in C.A. No. 19-361.

Transfer Patents”)² and patents that facilitate the transfer of images onto dark-colored fabrics (the “Dark Transfer Patents”).³ (*Id.*)

The parties submitted a joint claim construction brief on October 26, 2020. (D.I. 108) The parties’ submissions also include an expert declaration from Defendants. (D.I. 108 Ex. 11) The Court has also considered technology tutorials filed on November 4, 2020 (D.I. 110-112) and certain objections to those tutorials (D.I. 125, 126). The Court also reviewed and considered the parties’ additional evidence relevant to claim construction. (D.I. 116, 117, 124) Further, the Court has also benefitted from review of a previous claim construction order issued on certain of the patents-in-suit by Judge Montgomery of the District of Minnesota (“Minnesota Case”). (D.I. 108 Ex. 10) The Court held a claim construction hearing on December 10, 2020. (D.I. 132) (“Tr.”)

I. LEGAL STANDARDS

The ultimate question of the proper construction of a patent is a question of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 321 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). “It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal citation and quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.” *Id.* at 1324. Where, as here, a prior opinion on claim construction has been issued, that opinion “may be consulted as persuasive authority.” *Monec Holding AG v. Motorola Mobility, Inc.*,

² U.S. Patent Nos. 6,410,200 (D.I. 108 Ex. 6); 6,723,773 (*id.* Ex. 7); and 7,008,746 (*id.* Ex. 8)

³ U.S. Patent Nos. RE41,623 (D.I. 108 Ex. 1); 7,749,581 (*id.* Ex. 2); 7,754,042 (*id.* Ex. 3); 7,766,475 (*id.* Ex. 4); and 7,771,554 (*id.* Ex. 5)

2013 WL 12218320, at *4 (D. Del. June 11, 2013). However, the Court is free to attach the appropriate weight to appropriate sources “in light of the statutes and policies that inform patent law.” *Phillips*, 415 F.3d at 1324.

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [which 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.” *Id.* at 1312-13 (internal citations and quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). The patent “specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent.” *Id.* (internal citation omitted).

It is likewise true that “[d]ifferences among claims can also be a useful guide. . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15 (internal citation omitted). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. It bears emphasis that “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (internal quotation marks omitted).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence,” “consists of the complete record of the proceedings before the [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating 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 would otherwise be.” *Id.* Proceedings before the Patent Office, including IPRs, reexaminations, and interference proceedings, are properly considered as part of this intrinsic evidence—they are “part of the public record and shed light on the meaning of the claims.” *Phillips Petrol. Co. v. Huntsman Polymers Corp.*, 157 F.3d 866, 872 (Fed. Cir. 1998) (considering statements made during interferences); *see also Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017) (same for IPRs and citing cases for reissue and reexaminations).

“In some cases . . . the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background

science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 574 U.S. at 331. “Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* Nonetheless, courts must not lose sight of the fact that “expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, while extrinsic evidence “may be useful to the court,” it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, “[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.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct

interpretation.” *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

II. CONSTRUCTION OF DISPUTED TERMS

A. “white layer”⁴

Plaintiffs

A layer comprising a concentration or configuration of pigment providing a white background for received indicia and which further comprises a polymer that, under application of heat, softens or melts, such that it mixes with another layer or layers during application, without the resulting composition needing to be substantially uniform.

Defendants

A layer comprising a concentration or configuration of pigment providing a white background for received indicia and which further comprises a polymer that melts and mixes with another layer or layers during application.

All claims include a “white layer.” The “white layer,” if not explicitly recited, is the layer described in the claim as including a white or opaque pigment, such as titanium dioxide. In particular:

- In the asserted claims of the ‘623 patent, the “release layer” is/includes the “white layer.”
- In claims 1-5, 11, 12 of the ‘581 patent, the “image-imparting member” is/includes the “white layer.”
- In claims 17 and 19 of the ‘581 patent, the “white layer” is/includes explicitly recited.
- In claims 24 and 26 of the ‘581 patent, the “first layer” is/includes the “white layer.”
- In claims 16-18 of the ‘042 patent, the image-imparting member is/includes the “white layer.”
- In claim 13 of the ‘475 patent, the “white layer” is explicitly recited.
- In claim 1 of the ‘554 patent, the “white layer” is the layer that includes the recited “titanium oxide or other white or luminescent pigment,” which may be incorporated anywhere within the “image transfer sheet.”

Court

A layer comprising a concentration or configuration of pigment providing a white background for received indicia and which further comprises a polymer that melts and mixes with another layer or layers during application. All claims include a “white layer.”

The parties agree that a “white layer” is necessarily present in every claim in the Dark Transfer Patents. (D.I. 108 at 26) Consequently, although it will be helpful to tell the jury that

⁴ This term is applicable to, but not expressly found in, all claims of the ‘623, ‘581, ‘042, ‘475, and ‘554 patents.

each claim contains a “white layer,” the Court agrees with Plaintiffs that it is not necessary to instruct the jury on precisely where in each claim that “white layer” appears. (*Id.*)

The parties’ remaining disagreement relates to whether the terms “melt” and “mix” are given their plain and ordinary meaning – as the Minnesota Case held (*see* D.I. 108 Ex. 10) and Defendants propose (D.I. 108 at 29-30) – or whether each must be further qualified, as Plaintiffs request (*id.* at 27-29). The Court largely agrees with Defendants.

In the Minnesota Case, Judge Montgomery construed certain terms of the ’581, ’475, ’554, and ’748 patents, including “white layer” (*see* D.I. 108 Ex. 10), and this Court’s construction is consistent with that of Judge Montgomery. *See Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1327 (Fed. Cir. 2008) (“Given ‘the importance of uniformity in the treatment of a given patent,’ this court would be remiss to overlook another district court’s construction of the same claim terms in the same patent . . .”) (quoting *Markman*, 517 U.S. at 390); *see also Monec Holding*, 2013 WL 12218320 at *4 (“[A] prior opinion on claim construction may be consulted as persuasive authority.”). As explained below, the Court finds further support for its construction in representations Ms. Schwendimann made to the Patent Trial and Appeal Board (“PTAB”) during an interference. *See Sunovion Pharm., Inc. v. Teva Pharm. USA, Inc.*, 731 F.3d 1271, 1277 (Fed. Cir. 2013) (“[I]t is also appropriate to rely on the record of interference proceedings in construing claim terms.”). In particular, she told the PTAB that each Dark Transfer Patent claim requires that the white layer “must melt” and “must mix” with other layers. (D.I. 108 Ex. 12 at 2)

With respect to “melt,” Plaintiffs ask the Court to find that a “white layer” requires “application of heat” that results in “melting or softening.” (D.I. 108 at 26-29) Instead, the Court agrees with Defendants that Schwendimann unambiguously stated in the interference that

all claims of the Dark Transfer Patents require actual melting (*id.* Ex. 12 at 3-4), which a person of ordinary skill in the art (“POSA”) would understand to mean **not** just “softening.” Likewise, Judge Montgomery rejected Schwendimann’s “attempt to backtrack and claim white layers that ‘melt **or are [merely] fusible.**’” (D.I. 108 Ex. 10 at 12) (emphasis added)

Plaintiffs point to an embodiment in the specification of the ’623 patent that has a “softening point,” an embodiment which the Minnesota Court found met the definition of “melt.” (D.I. 108 Ex. 10)⁵ In this Court’s view, however, Defendants are correct that a POSA would conclude that “softening” is not the same as “melting.” (*E.g.*, D.I. 108 Ex. 11 ¶ 110) Softening may be a step on the way to melting, but – on the record now before this Court – a POSA would not understand the two to be equivalent. (*Id.*) Thus, to a POSA, “softening” in this context is not interchangeable with “melting.” Since any claimed embodiment “must melt,” it follows that one which only softens and does not also melt is not within the scope of the claims.

Plaintiffs further argue that their disclaimer did not “distinguish[] [their] patents from prior art references with white layers that **soften**” but instead only “distinguish[ed] [their] inventions from those of **Bamberg**, which described a white layer than did not melt **or** soften.” (D.I. 108 at 40-41) (emphasis in original) The Court is not persuaded. Even if the applicant’s intent was only to distinguish her patents from Bamberg, she is held to any clear and unmistakable disclaimer she made – even if she disclaimed more than she needed to in order to overcome the prior art. *See Uship Intellectual Props., LLC v. United States*, 714 F.3d 1311, 1315-16 (Fed. Cir. 2013) (“The analysis focuses on what the applicant said, not on whether the representation was necessary or persuasive . . .”). Because Schwendimann explicitly stated that

⁵ Judge Tunheim, applying Judge Montgomery’s constructions during a motions hearing in the Minnesota Case, found that “a softening event” is “needed to satisfy the melting requirement of Schwendimann’s patents.” (D.I. 108 Ex. 21 at 44-45)

all claims “must melt,” and “melt” is not the same as “soften” to a POSA, Schwendimann is held to that disclaimer.

The Court will not include in its construction Plaintiffs’ proposed reference to “under application of heat,” as the jury (like a POSA) will readily understand that in order to melt something heat must be applied to it. (*See* D.I. 108 at 37; *id.* Ex. 10 at 17) Plaintiffs’ additional language would be redundant.

Turning to “mix,” the Court agrees again that a plain and ordinary meaning construction suffices, which (as Defendants point out and Judge Montgomery concluded in the Minnesota Case) means “to combine or blend into a single mass or mixture.” (D.I. 108 at 35-36; *see also id.* Ex. 10 at 16-17) Plaintiffs agree that “the plain and ordinary meaning of ‘mix’ clearly does not require that the resulting mixture be substantially uniform.” (*Id.* at 42)

B. “release layer”⁶

1. Dark Transfer Patents

Plaintiffs
Layer or layers overlaying the base paper, includes titanium oxide or other white or luminescent pigment, and may include a release coating.
Defendants
Layer or layers overlaying the base substrate consisting of a release coating and a white pigment. The release layer is/includes a white layer.
Court
Layer or layers overlaying the base paper, includes titanium oxide or other white or luminescent pigment that produces a white background, and may include a release coating.

⁶ This term appears in claims 1-6, 9, 13-14 of the ’623 patent, claims 1, 19, 29, 57, 64, 70 of the ’200 patent, and claim 5 of the ’746 patent.

The parties have two disputes regarding the term “release layer” as it is used in the Dark Transfer Patents.⁷ First, the parties dispute which pigments are included; second, the parties dispute whether a release layer may or must include a release coating.

With respect to the first dispute, the parties agree that the pigments used are not as important as the background color those pigments produce. At the hearing, the parties noted that a white background is the hallmark of the disclosures. (Tr. at 55-59) Judge Montgomery found that any product within the scope of the claims must have a white background. (D.I. 108 Ex. 10 at 17) Hence, the Court will adopt Plaintiffs’ construction with respect to pigments (“includes titanium oxide or other white or luminescent pigment”) and clarify that a white background must result from such pigments (“that produces a white background”).

Next, the Court agrees with Plaintiffs that a “release coating” may be included but is not required. (*See, e.g.*, D.I. 108 at 52-53) (explaining how doctrine of claim differentiation supports Plaintiffs’ view) Similarly, in the Minnesota Case Judge Montgomery held that the “release layer” may (not must) include a release coating. (*Id.* Ex. 10 at 28; *see also* D.I. 108 at 53-54) Contrary to Defendants’ argument (D.I. 108 at 56), this conclusion does not read out “release” from the claims, as a “release layer” “can be made of one or multiple layers,” as Judge Montgomery explained (D.I. 108 Ex. 10 at 28). Defendants’ argument appears to limit the claims to a preferred embodiment (one which includes a release layer that “is comprised of both a silicone coating and a white layer”) (*id.* at 27-28), which would be improper, *see Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1348 (Fed. Cir. 1998).

⁷ Previously the parties also disagreed as to whether reference to a “white layer” must be included, but that issue was resolved by their subsequent agreement that a white layer is required in each claim.

2. Light Fabric Patents

Plaintiffs
One or more layers that facilitate the transfer of the image from the substrate to the receptor
Defendants
One or more layers that are released from the substrate and transferred to the receptor element in connection with the image transfer.
Court
One or more layers that facilitate the transfer of the image from the substrate to the receptor.

The parties also dispute the meaning of “release layer” in the Light Fabric Patents.

Plaintiffs propose a purpose-driven definition found in the specification (D.I. 108 at 72), while Defendants propose an outcome-driven definition inferred from the language of the claims (*id.* at 73-74).

The Court is persuaded by Plaintiffs, whose construction is well-supported by the specification. It explains that a release layer “facilitates the transfer of the image from the substrate to the receptor.” (’200 patent at 8:49-52) Further, the release layer “must provide the properties to effectively transfer the release layer and any images and/or optional layers thereon” and “must also provide for adhesion of the release layer and the optional image receiving . . . layer to the receptor without the requirement of a separate surface adhesive layer.” (*Id.* at 8:52-61)

Defendants’ additional requirements – “layers that are removed from the substrate” and layers that “adhere to the receptor element” – are not found in the specification. Defendants’ complaint that Plaintiffs’ construction extends to any layer facilitating image transfer is correct but unavailing. The specification defines “release layer” exactly as Plaintiffs do.

C. “encapsulating”⁸

The parties agreed at the hearing that “encapsulating” means “surrounds.” (Tr. at 58-59)

The Court will adopt that agreed-upon construction.

D. Order of Steps⁹

Plaintiffs There is a required order to performing the steps in the ‘554 Patent and [] ‘042 Patent. [The peeling step must occur before the contacting and applying heat steps]
Defendants The “peeling” step may be performed before or after the “contacting” and “applying heat” steps. The method steps cover both “peel first heat second” and “heat first peel second” methods of application.
Court In the ‘554 Patent, the “peeling” step may be performed before or after the “contacting” and “applying heat” steps. The method steps cover both “peel first heat second” and “heat first peel second” methods of application. There is a required order to performing the steps in the ‘042 Patent. The peeling step must occur before the contacting and applying heat steps.

In the interference proceedings, Schwendimann told the PTAB that claim 1 of the ‘554 patent “requires that the silicone release coating and base is peeled from the remaining portions. The claim does not require the substrate be peeled before the application of heat.” (D.I. 108 Ex. 19 at 19) Notwithstanding Schwendimann’s argument that different standards of claim construction render her statements non-binding in the present context (*see id.* at 70), the Court will hold her to her representations, consistent with the public notice function of patent proceedings. *See Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003) (holding that use of “broadest reasonable interpretation” standard did not negate prosecution disclaimer, due to public notice function); *see also Phillips*, 157 F.3d at 872.

⁸ This term appears in claim 5 of the ‘623 patent.

⁹ This term appears in claim 1 of the ‘554 patent and claim 16 of the ‘042 patent.

Therefore, the Court construes the '554 patent to not require any specific order of implementation.

The situation with respect to the '042 patent is less straightforward. Schwendimann made no representations with respect to an order of steps in connection with this patent. (D.I. 108 at 68) However, the '042 patent is in the same family as the '554 (and '623) patent, and as already explained she did expressly state that no order of steps is required for the '554 patent.¹⁰ (D.I. 108 at 2) Generally, the Court should interpret claims terms “consistently across all the [related] patents.” *Capital Mach. Co., Inc. v. MillerVeneers, Inc.*, 524 F. App'x 644, 649 & n.1 (Fed. Cir. 2013). Accordingly, Defendants propose that the “substantially similar steps” of the '042 patent should be found to have no order of steps requirement, just like the '554 patent. (D.I. 108 at 68)

Instead, however, the Court agrees with Plaintiffs that some order is required in claim 16 of the '042 patent. The language of this claim differs from that of claim 1 of the '554 patent. Whereas claim 1 of the '554 patent refers to application of “non-peeled portions,” claim 16 of the '042 patent refers to “peeling *the* removable substrate away from *the* image-imparting member” followed by contact “after being separated from *the* removable substrate” (emphasis added). The combination of the more specific claim language of the '042 patent, and the absence of any representation by Schwendimann to the PTAB, lead the Court to conclude that the '554 representations do not extent to the '042 patent and an order of steps is required for the latter patent. Moreover, as Plaintiffs point out, “[i]t would not be possible to apply the ‘peeled silicone

¹⁰ Because of this familial relationship, the '042 patent was at least implicitly involved in the interference proceedings.

release coating and the base portion’ over the transfer if the coating and base had not already been peeled away.” (D.I. 108 at 70)

E. Materials Terms

The remaining terms can be grouped together as the “materials terms” and present (in addition to term-specific issues) the same two disputes: (i) whether the transfer sheet need only incorporate a component that is capable of providing the identified characteristic, as Defendants contend, or must incorporate such a component in sufficient amount to actually provide the desired characteristic, as Plaintiffs contend; and (ii) whether the construction should list examples of such polymers or materials, as Defendants request and Plaintiffs oppose. (D.I. 108 at 78)¹¹

On the first dispute, the Court agrees with Defendants. As Defendants contend, “nothing in the claim language requires that any of these materials ‘impart’ any ‘desired characteristics’ to the release layer.” (*Id.* at 86) Indeed, “[n]othing in the claims refers to – let alone requires – any ‘amount’ of any of the recited materials. Likewise, nothing in the specification suggests that . . . any other material in the claims [] is required to be present in any particular amount.” (D.I. 108 at 83) As Defendants further observe (*see id.* at 86), Plaintiffs’ construction threatens to limit the claims to the disclosed embodiments, which here would be improper. *See Laitram Corp.*, 163 F.3d at 1348 (“[T]he mere repetition in the written description of a preferred aspect of a claimed

¹¹ Earlier in the briefing the parties disputed whether the characteristic must be provided by a “polymer,” as Defendants contended, or can be by provided by any “material” with such characteristics, as Plaintiffs countered. By the conclusion of the briefing, the parties had agreed on a “material,” which the Court will work into its constructions. (*See* D.I. 108 at 82 n.34 (Defendants agreeing that “‘elastomeric emulsion’ (and the other disputed elements) can be any material or combination of materials”))

invention does not limit the scope of an invention that is described in the claims in different and broader terms.”).

On the second dispute, the Court agrees with Plaintiffs that it is unnecessary to include in the constructions a list of exemplary materials. As Plaintiffs point out, the “evidence at trial will address the specific materials in the accused products that are alleged to satisfy these requirements.” (D.I. 108 at 80)

The Court’s constructions of all of the following materials terms incorporate the resolution of the two common disputes as explained above. They also reflect the Court’s decisions on issues that are specific to each term, to which the Court now turns.

1. “elastomeric emulsion”¹²

Plaintiffs A material present in sufficient amount to provide elastomeric properties, including mechanical stability, flexibility, and stretchability
Defendants A polymer, or a combination of polymers, dispersed in a medium that provides elastomeric properties such as mechanical stability, flexibility and stretchability. Exemplary polymers include, but are not limited to, the polymers set forth in the ‘200 patent specification at 2:46-54, 13:30-60, and 14:56-15:28.
Court A material dispersed in a medium that provides elastomeric properties such as mechanical stability, flexibility and stretchability.

The parties agree that an “elastomeric emulsion” must possess properties such as “mechanical stability, flexibility, and stretchability.” (D.I. 108 at 82) On their remaining dispute, the Court agrees with Defendants that “emulsion” must have meaning. Although any “material” (and not just a polymer) may meet the limitation, “an ‘elastomeric emulsion’ is a dispersion of an elastomeric material in a medium; not just ‘any “material” that provides the desired characteristics.’” (D.I. 108 at 82) Plaintiffs’ contention that an “elastomeric emulsion, if

¹² This term appears in claims 1, 11, 29 of the ‘200 patent and claims 1 and 10 of the ‘773 patent.

present, will necessary [sic] be ‘dispersed in a medium’” (*id.* at 83) would mean that “any material contained in the release layer is an ‘emulsion,’ thereby rendering this express claim term meaningless.” (*Id.* at 85).

2. “plasticizer”¹³

Plaintiffs
A material present in sufficient amount to act as a softening agent
Defendants
A polymer, or combination of polymers, that softens hard polymer and polymer blend additions. Exemplary polymers include, but are not limited to, the polymers set forth in the ‘200 patent specification at 10:37-46, 13:61-14:2, and 15:29-38
Court
A material or combination of materials that act(s) as a softening agent.

The specification discloses that a plasticizer “provides plasticity and antistatic properties to the transferred image.” (’200 patent at 11:61-65) As Plaintiffs correctly state, that plasticity is provided to the transferred layers as a whole. (D.I. 108 at 88-89; *see also* ’200 patent at 15:29-26 (“[A] plasticizer such as a polyethylene glycol dispersion . . . provides mechanical stability, water repellency, and allows for a uniform crack-free film. . . . Further, the polyethylene glycol dispersion acts as a softening agent.”)) Defendants’ proposal that plasticity results only in softening of “hard polymer and polymer blend additions” is incorrect. (D.I. 108 at 89)

¹³ This term appears in claims 1 and 29 of the ’200 patent and claims 1 and 10 of the ’773 patent.

3. “film-forming binder”¹⁴

Plaintiffs
A material present in a sufficient amount to provide adhesion of the release layer and image to the receptor element.
Defendants
A material, or a combination of materials, that facilitates release and/or adhesion of the composition. Exemplary materials include, but are not limited to, the materials set forth in the ‘200 patent specification at 8:61-9:9, 11:44, 11:66-12:6, and 12:44-13:29.
Court
A material, or a combination of materials, that facilitates release and/or adhesion of the composition.

The patent specifies that a “film-forming binder” “provide[s] the ‘release’ or ‘separation’ from the substrate.” (‘200 patent at 11:66-12:2) The Court agrees with Defendants that this statement sufficiently indicates to a POSA what the film-forming binder is and that the other elements Plaintiffs would have the Court read into the term (a “release layer,” “image,” and “receptor element”) are unwarranted. (*See* D.I. 108 at 93)

4. “acrylic dispersion”¹⁵

Plaintiffs
A material present in a sufficient amount to provide adhesion of the release layer and image to the receptor element.
Defendants
An acrylic material, or a combination of materials including an acrylic material, that is dispersed in a medium and facilitates release and/or adhesion of the composition. Exemplary materials include, but are not limited to, the materials set forth in the ‘200 patent specification at 10:37- 48, 13:61-14, and 15:29-38.
Court
An acrylic material, or a combination of materials including an acrylic material, that is dispersed in a medium and provides release and/or adhesion of the composition.

The patent specification provides that an “acrylic dispersion” is an example of a “film-forming binder that provides the ‘release’ or ‘separation’ from the substrate.” (‘200 patent at

¹⁴ This term appears in claims 1-2, 19-20, 29, 57, 64, and 70 of the ‘200 patent; claims 10, 12, and 14 of the ‘773 patent; and claim 5 of the ‘746 patent.

¹⁵ This term appears in claims 2 and 4 of the ‘200 patent, and claim 1 of the ‘773 patent.

11:66-12:1) The Court agrees with Defendants that as a subset of a “film-forming binder,” an “acrylic dispersion” cannot “be given the identical construction,” contrary to Plaintiffs’ position. (D.I. 108 at 97, 99)

5. “water repellant”¹⁶

Plaintiffs
A material present in a sufficient amount to provide water resistance and repellency.
Defendants
A material that resists water. Exemplary materials include, but are not limited to, the materials set forth in the ‘200 patent specification at 9:10-15, 10:48-11:6, and 13:61-15:28.
Court
A material or materials that provide(s) water resistance.

The Court’s construction, like that proposed by Defendants, is based on the specification’s disclosure that a “water repellant” has “the purpose of providing water resistance for toner retention and/or a retention aid.” (’200 patent at 9:13-15) As Defendants note, “Plaintiffs’ construction requires that the material provide both water ‘resistance’ *and* ‘repellency,’” (D.I. 108 at 101), which is not supported by the specification.

6. “retention aid”¹⁷

Plaintiffs
A material present in a sufficient amount to aid in the binding of an applied colorant.
Defendants
A material or layer that facilitates retention of an image. Exemplary materials include, but are not limited to, the materials set forth in the ‘200 patent specification at 9:57-10:8, 15:61-65, and 16:36-39.
Court
A material that aids in the binding of an applied colorant.

¹⁶ This term appears in claims 1 and 29 of the ’200 patent and claims 1, 10, and 14 of the ’773 patent.

¹⁷ This term appears in claims 19, 57-58, 64, and 70 of the ’200 patent and claim 5 of the ’746 patent.

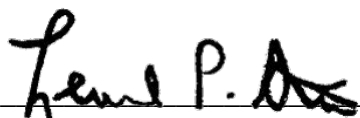
Plaintiffs' proposed construction is supported by the specification, which teaches that a "retention aid" "may be incorporated for the purpose of aiding in the binding of the applied colorant such as water-based ink jet colorants and/or dry or liquid toner formulations." ('200 patent at 9:55-58) By contrast, Defendants' proposed construction unpersuasively relies on statements in the specification directed to materials other than the retention aid. (*See, e.g.*, '200 patent at 12:6-8 (film-forming binders); 9:10-15 (wetting agents))

III. CONCLUSION

The Court will construe the disputed terms as explained above. An appropriate Order follows.

“image imparting member”	’623 ’581 ’042 ’475 ’554	“layer or layers that include at least one surface configured to receive and carry indicia to be transferred and include at least one portion comprising a concentration or configuration of pigment providing an opaque background for received indicia”
“image-imparting layer”	’623 ’581 ’042 ’475 ’554	“a polymeric layer upon which an image is provided”
“white layer” [All claims of the ’623, ’581, ’042, ’475, and ’554 patents]	’623 ’581 ’042 ’475 ’554	“A layer comprising a concentration or configuration of pigment providing a white background for received indicia and which further comprises a polymer that melts and mixes with another layer or layers during application. All claims include a ‘white layer.’”
“release layer” [Asserted claims 1-6, 9, 13-14 of the ’623 patent]	’623	“Layer or layers overlaying the base paper, includes titanium oxide or other white or luminescent pigment that produces a white background, and may include a release coating.”
“release layer” [Claims 1, 19, 29, 57, 64, 70 of the ’200 patent and claim 5 of the ’746 patent]	’200 ’746	“One or more layers that facilitate the transfer of the image from the substrate to the receptor.”
“encapsulating” [Asserted claim 5 of the ’623 patent]	’623	“surrounds”
Order of Steps [Asserted claim 1 of the ’554 patent and claim 16 of the ’042 patent]	’554 ’042	In the ’554 Patent, the “peeling” step may be performed before or after the “contacting” and “applying heat” steps. The method steps cover both “peel first heat second” and “heat first peel second” methods of application. There is a required order to performing the steps in the ’042 Patent. The peeling step must occur before the contacting and applying heat steps.
“elastomeric emulsion” [Claims 1, 11, 29 of the ’200 patent and claims	’200 ’773	“A material dispersed in a medium that provides elastomeric properties such as mechanical stability, flexibility and stretchability.”

1 and 10 of the '773 patent]		
“plasticizer” [Claims 1 and 29 of the '200 patent and claims 1 and 10 of the '773 patent]	'200 '773	“A material or combination of materials that act(s) as a softening agent.”
“film-forming binder” [Claims 1-2, 19-20, 29, 57, 64, and 70 of the '200 patent; claims 10, 12, and 14 of the '773 patent; and claim 5 of the '746 patent]	'200 '773 '746	“A material, or a combination of materials, that facilitates release and/or adhesion of the composition.”
“acrylic dispersion” [Claims 2 and 4 of the '200 patent, and claim 1 of the '773 patent]	'200 '773	“An acrylic material, or a combination of materials including an acrylic material, that is dispersed in a medium and provides release and/or adhesion of the composition.”
“water repellant” [Claims 1 and 29 of the '200 patent and claims 1, 10, and 14 of the '773 patent]	'200 '773	“A material or materials that provide(s) water resistance.”
“retention aid” [Claims 19, 57-58, 64, and 70 of the '200 patent and claim 5 of the '746 patent]	'200 '746	“A material that aids in the binding of an applied colorant.”


 UNITED STATES DISTRICT JUDGE