United States Court of Appeals for the Federal Circuit

03-1203

3M INNOVATIVE PROPERTIES COMPANY
and MINNESOTA MINING AND MANUFACTURING COMPANY,

Plaintiffs-Appellants,

v.

AVERY DENNISON CORPORATION,

Defendant-Appellee.

Frank P. Porcelli, Fish & Richardson, P.C., of Boston Massachusetts, argued for plaintiffs-appellants. With him on the brief were Frank E. Scherkenbach, Robert E. Hillman, Gregory A. Madera, and Kurt L. Glitzenstein; and John C. Adkisson, Fish & Richardson, P.C., of Minneapolis, Minnesota. Of counsel on the brief was Kevin H. Rhodes, 3M Innovative Properties Company, of St. Paul, Minnesota.

Roderick G. Dorman, Hennigan, Bennett & Dorman LLP, of Los Angeles, California, argued for defendant-appellee. With him on the brief were Lawrence M. Hadley and Armand F. Ayazi. Of counsel on the brief was Jay R. Campbell, Renner Otto Boisselle & Sklar, of Cleveland, Ohio.

Appealed from: United States District Court for the District of Minnesota

Senior Judge David S. Doty

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DECIDED: December 2, 2003

Before MICHEL, CLEVENGER and LINN, Circuit Judges.

Opinion for the court filed by Circuit Judge CLEVENGER. Dissenting opinion filed by Circuit Judge MICHEL.

CLEVENGER, Circuit Judge.

Plaintiffs-Appellants 3M Innovative Properties Company and Minnesota Mining and Manufacturing Company (collectively "3M") sued Defendant-Appellee Avery Dennison ("Avery") for infringement of claim 1 of U.S. Patent No. 5,897,930 ("the '930 patent") in the United States District

Court for the District of Minnesota. After construing disputed claim terms, the district court entered summary judgment in favor of Avery, concluding that Avery did not infringe, as a matter of law, the '930 patent either literally or under the doctrine of equivalents. We reverse the district court's claim construction, vacate its summary judgment and remand for further proceedings not inconsistent with this opinion.

I

3M and Avery compete in the market for adhesive-based products for the commercial graphics industry. In our increasingly image-suffused world, this industry seems to have targeted all available surfaces in public places, including the exterior of busses, trucks and other vehicles, as appropriate locations for advertising images. So that these advertisements may be efficiently and pervasively placed on such diverse surfaces, images are pre-printed onto sheets of adhesive-backed film. These films, like bumper stickers, have release liners that can be stripped off to reveal a pressure sensitive adhesive just prior to affixation of the image.

Even one of skill in the art of sticking films on surfaces can experience difficulties. Correct positioning of a large image may require repeated adjustments, and if the film is not initially placed in precisely the desired position, removing the film and repositioning it is likely to damage the film and mar the sought-after image. Additionally, pockets of air, in the form of bubbles or blisters, may become entrapped between the film and the surface if the two are not mated perfectly.

The '930 patent describes a release liner that, according to 3M, avoids these positioning and air-entrapment difficulties. Also according to 3M, Avery's EZ Film liner infringes the claims of the '930 patent in the features it uses to provide these benefits.

II

As implicated in the current litigation, the '930 patent "relates to embossed webs useful as liners for pressure sensitive adhesives." '930 patent, col. 1, ll. 5-7. When used as a "release liner," the

"embossed web" is the adhesive-protective layer that is removed from the back of the film to expose the adhesive. More specifically, the '930 patent addresses embossed webs that are manufactured with a particular type of three-dimensional configuration or "topography" that are useful insofar as they fashion an obverse topography in the exposed adhesive.

Only independent product claim 1 of the '930 patent is at issue in this appeal, and it reads as follows:

> 1. A carrier web, comprising: at least one surface that has a multiple embossed pattern having a first embossed pattern and a second embossed pattern, wherein the first embossed pattern forms an array of depressions, wherein the depressions of the first embossed pattern are in the second embossed pattern, wherein the second embossed pattern comprises lands and ridges between the lands, and wherein the height of the ridges over the lands ranges from about 3 to about 45 µm.

(emphasis added).

In the preferred embodiment, the first and second embossed patterns each serves a different function. The "depressions" of the first embossed pattern in the web enhance the film's positionability. They result in protruding bumps in the exposed adhesive, minimizing the surface area of the initial points of contact between the adhesive and the substrate and increasing the ease with which the image-imprinted film can be positioned after initial contact but before complete adhesion. Additionally, if nonadhesive granules, such as glass beads, are placed in the depressions prior to the web being coated with adhesive, the granules stick to the adhesive when the liner is removed, creating nonadhesive bumps and further increasing positionability. In contrast, the "ridges" in between the "lands" of the second embossed pattern in the web result in a network of valleys in the exposed adhesive. Because these valleys create channels through which air can flow even after the film has adhered to the substrate, air that would otherwise become trapped as air bubbles due to imperfect application of the film can escape.

Independent method claim 6 is also relevant to this appeal, although 3M does not allege that Avery has infringed it. Claim 6 provides:

> A method of embossing, comprising the steps of:
>
> (a) embossing a carrier web having at least one surface with a first pattern, to create a first pattern of depressions;

> (b) embossing the surface with a second pattern, to create a second pattern of depressions comprising lands and ridges;
>
> wherein the depressions created from the first embossing step are substantially preserved during the second embossing step even though the second embossing step superimposes the second pattern on the depressions created by the first embossing step, and wherein the height of the ridges over the land ranges from about 3 to about 45 μm.

The specification provides several definitions for terms used in claim 1, two of which are relevant here:

> "Embossed" means a topography on a web or on tooling having an effective three-dimensional pattern that generates a difference in surface planar dimension in the liner or the tooling.
>
> * * *
>
> "Multiple embossed" means two or more embossing patterns are superimposed on the web to create a complex pattern of differing depths of embossing.

'930 patent, col. 1, ll. 61-64, col. 2, ll.1-3.

III

Avery's accused product is its EZ Film, an adhesive-backed graphics film with both positionability and air-egress features. The EZ Film liner is created by first depositing or printing polyurethane "ink" dots (the "PU dots") on top of the liner's outer polyethylene layer (the "PE layer") and then embossing a pattern of hexagonal ridges and lands in the liner when the PU/PE combination passes over an embossing roll. This hexagonal pattern in the liner creates air-egress-enabling channels in the adhesive layer when the liner is removed. At some point (or points) in the manufacturing process, the PU dots are pressed into the PE layer of the liner.[1] When the liner is removed from the adhesive layer, the PU dots remain affixed to the adhesive, creating less-adhesive, positionability-enhancing bumps.

IV

3M alleges that the Avery EZ Film liner infringes the '930 patent because the dents in the PE layer of the liner (created when the PU dots are embedded) constitute a "first embossed pattern," the hexagonal pattern constitutes a "second embossed pattern," and because all remaining claim limitations are satisfied.

In its first order, the district court construed claim 1 of the '930 patent and denied 3M's plea for a

preliminary injunction on the ground, among other things, that 3M had not demonstrated a likelihood of success on the merits of its infringement claim. See 3M Innovative Props. Co. v. Avery Dennison Corp., 185 F. Supp. 2d 1031, 1037-41 (D. Minn. 2002) ("3M I"). In a second order ruling on Avery's motion for summary judgment of noninfringement, the district court adopted the claim construction from 3M I, see 3M Innovative Props. Co. v. Avery Dennison Corp., No. Civ.01-1781 (DSD/FLN), 2002 WL 31628395, at *3 & n.2 (D. Minn. Oct. 19, 2002) ("3M II"), and granted Avery's motion, id. at *7.

In 3M I, the district court construed two terms from claim 1. First, construing the term "multiple embossed pattern," the district court held that "[w]hile the language of the claim does not mention the word 'sequential,' it nevertheless illustrates that the term 'multiple embossed pattern' requires sequential embossments." 185 F. Supp. 2d at 1038. To arrive at this conclusion, the district court relied on its view of the plain meaning of "first" and "second" and characterized the definition of "multiple embossed" in the specification as evidence of the claim's product-by-process nature. Id. at 1038-39. Second, the court relied on the specification's express definition of the term "embossed," as well as a source that the district court treated as a technical dictionary,[2] to construe it to mean "a topography created on material by impressing a corresponding inverse topography on its surface." Id. at 1040-41.

In 3M II, the district court concluded that the Avery EZ Film liner did not, as a matter of law, literally infringe claim 1 because the accused product was manufactured using an "embedding" process and the product resulting from such an embedding process was not "embossed" as per the definition given to that term during claim construction. 3M II, 2002 WL 31628395, at *4. Moreover, the PU dots printed onto the liner were softened during the embedding process, so the PE layer of the liner was "not the inverse topography of the hardened PU ink dot earlier flexographically printed on

the liner." Id. at *5. The district court also concluded that the Avery EZ Film liner did not, as a matter of law, infringe under the doctrine of equivalents because "[t]he doctrine of equivalents cannot be employed in a manner that vitiates a claim limitation," id. at *6 (citing Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., 242 F.3d 1337, 1347 (Fed. Cir. 2001); K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1367 (Fed. Cir. 1999)), and Avery had removed "one of the steps of the '930 patent—the 'first embossed pattern' forming an array of depressions," id.

V

In entering a summary judgment of noninfringement, the district court resolved both steps of the infringement inquiry as a matter of law; on appeal, we therefore review both de novo: (1) the scope of the patent claims and (2) the lack of a genuine issue of material fact in the conclusion that the device does not contain all of the limitations, either literally or by equivalents, that are present in the claims. See Karlin Tech., Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 970-71, 974 (Fed. Cir. 1999). In a case such as this one, however, where the district court's claim construction is reversed and a new one is given, we frequently remand for the district court to reconsider the components of the second step—namely, whether a genuine issue of material fact exists and whether either party is entitled to summary judgment—using the new claim construction. See, e.g., Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1338 (Fed. Cir. 2001).

Claim construction begins with the language of the claims. See Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999). In construing patent claims, there is "a 'heavy presumption' that a claim term carries its ordinary and customary meaning," CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002) (quoting Johnson Worldwide Assocs., 175 F.3d at 989), namely its meaning "amongst artisans of ordinary skill in the relevant art at the time of the invention," ResQNet.com, Inc. v. Lansa, Inc., 347 F.3d 1347, 1378 (Fed. Cir. 2003) (citing Rexnord, 274 F.3d at 1342). "[D]ictionaries and treatises may also assist the courts." Id. (citing Tex. Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed. Cir. 2002)); see also Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1584 n.6 (Fed. Cir. 1996) (noting that "[j]udges . . . may . . . rely on

dictionary definitions" to construe claim terms).

A term's ordinary meaning, however, must be considered in the context of all intrinsic evidence, namely the claims, the specification, and the prosecution history. See Rexnord, 274 F.3d at 1342-43 (explaining that claim terms must be examined in light of the specification and the prosecution history); cf. Gart v. Logitech, Inc., 254 F.3d 1334, 1339-40 (Fed. Cir. 2001) (defining intrinsic evidence). While limitations in the specification must not be routinely imported into the claims because a patentee need not describe all embodiments of his invention, see Rexnord, 274 F.3d at 1344, a definition of a claim term in the specification will prevail over a term's ordinary meaning if the patentee has acted as his own lexicographer and clearly set forth a different definition, see Tex. Digital Sys., 308 F.3d at 1204 (noting that "the inconsistent dictionary definition must be rejected" if the specification rebuts the presumption of ordinary and customary meaning); Rexnord, 274 F.3d at 1342. "This court also considers the prosecution history . . . to determine whether the applicant clearly and unambiguously 'disclaimed or disavowed [any interpretation] during prosecution in order to obtain claim allowance.'" Middleton, Inc. v. Minn. Mining & Mfg. Co., 311 F.3d 1384, 1388 (Fed. Cir. 2002) (quoting Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985)) (alteration in original); see also Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1324 (Fed. Cir. 2003) (noting that "the doctrine of prosecution disclaimer" does not apply "where the alleged disavowal of claim scope is ambiguous").

A

The district court erred when it defined the term "multiple embossed patterns" to include a limitation that the patterns be created sequentially. The use of the terms "first" and "second" is a common patent-law convention to distinguish between repeated instances of an element or limitation. See, e.g., Anchor Wall Sys., Inc. v. Rockwood Retaining Walls, Inc., 340 F.3d 1298, 1304 (Fed. Cir. 2003) ("first and second sidewall surfaces"); Springs Window Fashions LP v. Novo Indus., L.P., 323 F.3d 989, 992 (Fed. Cir. 2003) ("first and second opposed ends"). In the context of claim 1, the use of the terms "first . . . pattern" and "second . . . pattern" is equivalent to a reference to "pattern A" and "pattern B," and should not in and of itself impose a serial or temporal limitation onto claim 1.

In the specification, 3M clearly acted as its own lexicographer, and the definition provided requires only that the "two or more embossing patterns" be "superimposed." '930 patent, col. 2, ll. 1-2. Despite Avery's arguments to the contrary, the use of "superimposed" in this definition neither transforms claim 1 into a product-by-process claim nor even limits the scope of the claim to a serial method of manufacture; it describes only the structural relationship between the embossing patterns. See Webster's Third New International Dictionary 2294 (1993) (defining "superimposed" as "layered"). Furthermore, even words of limitation that can connote with equal force a structural characteristic of the product or a process of manufacture are commonly and by default interpreted in their structural sense, unless the patentee has demonstrated otherwise. See Hanzai v. United States Int'l Trade Comm'n, 126 F.3d 1473, 1479 (Fed. Cir. 1997) (concluding that "chemically engraved" was not a process term); Vanguard Prods. Co. v. Parker Hannifin Corp., 234 F.3d 1370, 1372 (Fed. Cir. 2000) (holding that the claim term "integral" describes a structural relation, not the particular manufacturing process related in the specification); cf. id. ("A novel product that meets the criteria of patentability is not limited to the process by which it was made." (citing 3 Donald S. Chisum, Chisum on Patents § 8.05, at 8-79 (2000))).

Nothing in the intrinsic evidence of the patent requires that a limitation of sequential creation of the "multiple embossed pattern" should be included in claim 1. The limitation of serial embossing clearly present in method claim 6 cannot be read into claim 1; furthermore, method claim 6 creates new terms—"the first embossing step" and "the second embossing step"—to carry the serial-embossing limitation. It is true that language in the specification of the '930 patent recurrently recites serial application of the two patterns. See, e.g., '930 patent, col. 3, ll. 16-17 ("An advantage of the present invention is to create a means of sequential manufacturing of articles using different depths of depressions and same or different materials."); id., col. 6, ll. 66-67 ("Because the multiple embossings of the web occur sequentially . . . ."). Limitations from the specification, however, cannot be imported into the claims, and this rule must be strictly enforced in light of the clear definition of "multiple embossed" provided in the specification—a definition devoid of sequential limitation. Furthermore, the specification also discloses the option, albeit not the preferred option, of creating multiple embossed patterns in a single step. See id., col. 2, ll. 11-15 ("Although the multiple embossing steps could be combined into a single

step with the design of a suitable tool or mold, the advantage of multiple steps is that the depressions formed by the prior step(s) can be filled with material prior to the subsequent embossing step(s).").

A broadening claim amendment made during the prosecution history of the '930 patent supports a plain-meaning construction of claim 1 without a sequential-embossment limitation. As filed in the original patent application, claim 1 was expressly limited to a "multiple sequentially embossed" web.[3] In response to the examiner's § 112, ¶ 2 indefiniteness rejection, 3M amended claim 1 to claim a carrier web "that has a multiple embossed pattern having a first embossed pattern and a second embossed pattern," referring to definitions of "multiple embossed" and "embossed" that were in the specification at the time of the original patent application. The fact that 3M broadened its claims in response to an indefiniteness rejection and dropped the sequential limitation is perhaps unusual, but it is entirely permissible, and the plain language of the claim as issued must control. Cf. Smith v. Snow, 294 U.S. 1, 16 (1935) ("It is of no moment that in the course of the proceedings in the Patent Office the rejection of narrow claims was followed by the allowance of the broader claim 1."); United States v. Telectronics, Inc., 857 F.2d 778, 782-83 (Fed Cir. 1988) (concluding that adding a limitation to a claim during prosecution and then removing it when the limitation failed to result in allowance of the claim over the prior art does not permit reading of limitation into claim when the claim issued without it).

Avery also argues that claim 1 contains a sequential-embossment limitation because of the arguments that 3M made during prosecution to overcome section 102(b) anticipation and section 103(a) obviousness rejections by the examiner. To traverse an anticipation rejection of both product claim 1 and method claim 8 (which eventually issued as method claim 6) based on references that taught that "two or more adhesives having different properties may be coated into the same recesses" on the web, 3M stated that:

> Applicants here are claiming two different embossed patterns where the first embossed pattern survives the embossing of the second pattern. See Fig. 2, for an illustration of this patentable point. In [the prior art reference], there is only one embossed pattern, that can be filled with the same or different adhesives. There are not two embossed patterns as Applicants require in Claims 1 and 8.

The examiner withdrew his objection in response to 3M's argument.[4]

Avery argues that 3M thus expressly disclaimed any patent scope beyond sequential embossment of patterns when it used language pregnant with temporal implications—the first pattern "survives" the embossing of the second—to traverse the examiner's rejections. 3M's use of the term "survives" in the prosecution history, however, does not constitute the clear and unambiguous disavowal of claim scope that is required to read a limitation into an expressly defined term. See Middleton, 311 F.3d at 1388. To distinguish the prior art in question, 3M needed only to argue, as it did in

the last two sentences of the quotation above, that the '930 patent claimed "two embossed patterns" rather than "one embossed pattern." When the patentee has expressly defined a term in the specification and remarks made to distinguish claims from the prior art are broader than necessary to distinguish the prior art, the full breadth of the remark is not "a clear and unambiguous disavowal of claim scope as required to depart from the meaning of the term provided in the written description." Storage Tech. Corp. v. Cisco Sys., Inc., 329 F.3d 823, 833 (Fed. Cir. 2003). Furthermore, Figure 2 of the '930 patent, to which 3M directed the examiner, illustrates only the coexistence of two distinct patterns in the final product, not the sequential embossing of the patterns.

Finally, in explaining a subsequent anticipation rejection under section 102(b) on the basis of other prior art, the examiner stated that claim 1 was "drafted in the product-by-process format." 3M never responded to this statement during the remainder of the prosecution because the objection was overcome without any need to address whether claim 1 was or was not a product-by-process claim. In this context, the examiner's statement does not constitute a clear and unmistakable surrender of claim scope. See Middleton, 311 F.3d at 1388. "[P]rosecution history . . . cannot be used to limit the scope of a claim unless the applicant took a position before the PTO." Schwing GmbH v. Putzmeister Aktiengesellschaft, 305 F.3d 1318, 1324-25 (Fed. Cir. 2002) (emphasis added). An applicant's silence in response to an examiner's characterization of a claim does not reflect the applicant's clear and unmistakable acquiescence to that characterization if the claim is eventually allowed on grounds unrelated to the examiner's unrebutted characterization.

B

The district court also erred when it defined the term "embossed" by imposing a limitation related to the process by which the embossed surface is made. See 3M I, 185 F. Supp. 2d at 1040-41 (defining embossed as "a topography created on material by impressing a corresponding inverse topography on its surface"). Because 3M expressly acted as its own lexicographer by providing a definition of embossed in the specification, the definition in the specification controls the meaning of embossed, regardless of any potential conflict with the term's ordinary meaning as reflected in technical dictionaries. See Tex. Digital Sys., 308 F.3d at 1204; Rexnord, 274 F.3d at 1342.

The specification expressly states that "'[e]mbossed' means a topography on a web or on tooling having an effective three-dimensional pattern that generates a difference in surface planar dimension in the liner or the tooling." '930 patent, col. 1, ll. 61-64. This definition defines "embossed" materials to include both the web and the tooling (a device that can be used to impress a pattern into a web), provided each has a "topography" that has "an effective three-dimensional pattern that generates a difference in surface planar dimension."[5] This definition is entirely structural. 3M defines an "embossed" material as one that has particular surface characteristics: a "topography" with an "effective three-dimensional pattern," the pattern creating "a difference in surface planar dimension."

The district court erred when it introduced a process limitation of embossed by requiring the topography to be created by impression of a corresponding inverse topography. The patent does not limit how the embossed pattern, as defined in the specification, is created.

VI

Because the district court erred in its claim construction, the reasoning underpinning its grant of summary judgment of noninfringement to Avery is no longer relevant. We do not reach the question of infringement under its now-vacated claim construction. Furthermore, because the parties have not briefed infringement under our claim construction, and because we cannot determine whether sufficient discovery has occurred to rule on infringement-related summary judgment motions using this court's claim construction, we remand to the district court for further proceedings not inconsistent with this

opinion.

COSTS

No costs.

REVERSED-IN-PART, VACATED-IN-PART AND REMANDED

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MICHEL, Circuit Judge, dissenting.

I respectfully dissent, because I disagree with the majority's construction of claim 1 as a pure product claim. The majority's construction runs counter to the definition of claim terms chosen by the patentee as well as the analyses of the district court and the patent examiner, both of whom expressly interpreted claim 1 as a product-by-process claim. The majority incorrectly reads the definition of "multiple embossed" as purely structural, when in my view it requires process. Moreover, the majority's claim construction may weaken the notice function of this claim: I believe a reasonable competitor would read claim 1 as a product claim with a process limitation.

Claim 1 reads as follows:

> 1. A carrier web, comprising:
> at least one surface that has a multiple embossed pattern having a first embossed pattern and a second embossed pattern, wherein the first embossed pattern forms an array of depressions, wherein the depressions of the first embossed pattern are in the second embossed pattern, wherein the second embossed pattern comprises lands and ridges between the lands, and wherein the height of the ridges over the lands ranges from about 3 to about 45 μm.

'930 patent, col. 9, ll. 32-41 (emphasis added). Defendant argues that the use of the claim term "multiple embossed pattern" requires that the carrier web have undergone embossing, in much the same way that a claim term "welded joint" would mean a joint that results from the process of welding. (Red Br. at 28.) Defendant further contends that the required embossing must be sequential, i.e., multiple embossing tools sequentially emboss different patterns onto the carrier web. Although the district court accepted both of these arguments, the majority now rejects both.

> The written description states:
>
> "Embossed" means a topography on a web or on tooling having an effective three-dimensional pattern that generates a difference in surface planar dimension in the liner or the tooling.
> . . .
> "Multiple embossed" means two or more embossing patterns are superimposed on the web to create a complex pattern of differing depths of embossing.

'930 patent, col. 1, ll. 61-64, col. 2, ll. 1-3. The majority interprets the definition of "multiple embossed" as "neither transform[ing] claim 1 into a product-by-process claim nor even limit[ing] the scope of the claim to a serial method of manufacture; it describes only the structural relationship between the embossing patterns." (Maj. Op. at 9.) The majority interprets the definition of "embossed" to be "entirely structural." (Id. at 14.) Based on its interpretations of the two definitions -- and its correct conclusion that the patentee nowhere clearly disavowed these definitions -- the majority construes claim 1 as purely structural.

I do not think the definition of "multiple embossed" describes only the structural relationship between the embossing patterns. To the contrary, the definition expressly requires that an action have taken place: "'[m]ultiple embossed' means two or more embossing patterns are superimposed on the web to create a complex pattern of differing depths of embossing." '930 patent, col. 2, ll. 1-3 (emphasis added). The highlighted text is a verb clause -- "are superimposed . . . to create" -- and its inclusion in the definition must be recognized as meaningful.

Having concluded that the definition of "multiple embossed" requires process, the next issue is

what is the meaning of the definitional language "two or more embossing patterns are superimposed on the web to create . . . ." Here, I turn to the written description's definition of "embossed": "a topography on a web or on tooling having an effective three-dimensional pattern that generates a difference in surface planar dimension in the liner or the tooling." '930 patent, col. 1, ll. 61-64 (emphasis added). Applying this definition, I conclude that the "two or more embossing patterns superimposed on the web" result from two or more topographies, each on a web or on tooling. In the context of embossing of a liner, the relevant topographies initially are only on tooling -- that is, the liner is embossed by tools. Thus, I interpret the process in the definition of "multiple embossed" as the superimposition of two or more topographies -- each on a tool -- onto the web. This process is incorporated as a limitation into claim 1 through the claim's use of the term "multiple embossed."

Unlike the district court, however, I do not view claim 1's process limitation as necessarily sequential. Nothing in the definition of "multiple embossed" compels the conclusion that the tools are applied to the web serially, as opposed to simultaneously. Moreover, I agree with the majority that the prosecution history and the remainder of the written description do not contain a clear disavowal of a simultaneous application of the embossing tools. Indeed, although a sequential process is repeatedly discussed, one sentence of the written description clearly contemplates a simultaneous process. '930 patent, col. 2, ll. 11-12 ("Although the multiple embossing steps could be combined into a single step . . .."). I therefore do not construe the term "multiple embossed" in claim 1 as requiring the sequential application of embossing tools.

Nevertheless, because the accused product's pattern results from only one embossing tool, it is not "multiple embossed." As it therefore cannot infringe, I would affirm the summary judgment of non-infringement, even though several of the district court's constructions -- including the sequential requirement -- were incorrect. The judgment may stand regardless of these errors, because under the correct claim construction infringement by defendant's product cannot be shown.

[1] Avery alleges that, during the manufacture of its EZ Film liner, the PU dots are imbedded only at the embossing roll, the same point in the process at which the hexagonal pattern is created. The district court noted that "3M present[ed] expert testimony to support its contention that embossing occurs at the squeegee roll," a point in the process earlier than the embossing roll, but it concluded that "that testimony does not create a genuine issue of material fact." See 3M Innovative Props. Co. v. Avery Dennison Corp., No. Civ.01-1781 (DSD/FLN), 2002 WL 31628395, at *5 n.5 (D. Minn. Oct. 19, 2002). Because we reverse the district court's claim construction, we need not review the district court's conclusion that no genuine issue of material fact existed.

[2] "The TAPPI 1993-1994 Technical Information Sheets define 'embossing' as 'creating a finish or design imparted by compressing a material between matched rigid surfaces or rigid and ductile surface having the desired raised or depressed surface pattern.'" 3M I, 185 F. Supp. 2d at 1041.

[3] As initially filed, claim 1 read: "A carrier web, comprising: at least one surface that is multiple, sequentially embossed with a pattern, wherein depressions created from the prior embossing pattern(s) are substantially preserved during the subsequent embossing pattern(s) even though the subsequent embossing pattern(s) are superimposed on the depressions from the prior embossing patterns (s)."

[4] 3M made similar arguments to traverse another anticipation and an obviousness rejection as well.

[5] If the district court's definition were correct, then the definition provided in the specification (which of course cannot be ignored) would create a problem of infinite recursion: the

tooling itself would have to be created "by impressing a corresponding inverse topography on [the tooling's] surface"; the "corresponding inverse topography" that creates the tooling, itself a meta-tooling, would have to be created "by impressing a corresponding inverse topography on [the meta-tooling's] surface," etc. At oral argument, Avery argued that the definition in the specification must be ignored because it is nonsensical. Cf. CCS Fitness, 288 F.3d at 1367 (noting that a claim term will not be given its ordinary meaning if the term deprives the claim of all clarity). The only interpretation under which the definition of embossed provided in the specification is nonsensical is Avery's.