United States District Court,
W.D. Kentucky, at Louisiville.

S'dcD-CHEMIE, INC,
Plaintiff.
v.
MULTISORB TECHNOLOGIES, INC,
Defendant.

Civil Action No. 3:03CV-29-S

Oct. 20, 2006.

Brian P. McGraw, James R. Higgins, Jr., Steve A. Witters, Augustus S. Herbert, Middleton Reutlinger, Louisville, KY, James J. Dries, Thomas A. Doyle, Baker & McKenzie LLP, Chicago, IL, for Plaintiff.

Jennifer L. Friedman, Laura A. Colca, Michael R. McGee, McGee and Gelman, Buffalo, NY, Stephen B. Salai, Harter Secrest & Emery LLP, Rochester, NY, for Defendant.

MEMORANDUM OPINION AND ORDER

CHARLES R. SIMPSON III**, District Judge.**

This matter is before the court for construction of Claim 1 of United States Patent No. 5,743,942 to Shelley and Rix. The court conducted a hearing on the matter on March 29 and June 23, 2006. The parties filed post-hearing briefs. The matter stands submitted to the court for decision pursuant to Phillips v. AWH Corp., 415 F.3d 1303, 1317 (Fed.Cir.2005) and Markman v. Westview Instruments, Inc., 52 F.3d 967, 986 (Fed.Cir.1995)(*en banc*), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

The United States Court of Appeals for the Federal Circuit in *Phillips, supra.,* restated and further clarified the well-established principle of patent claim construction:

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." *Innova,* 381 F.3d at 1115; *see also Vitronics,* 90 F.3d at 1582 ("we look to the words of the claims themselves ... to define the scope of the patented invention"); Markman, 52 F.3d at 980 ("The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims."). [T]the Supreme Court made clear that the claims are "of primary importance, in the effort to ascertain precisely what it is that is patented."... We have frequently stated that the words of a claim "are generally given their ordinary and customary meaning." *Vitronics,* 90 F.3d at 1582; *see also* Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295, 1299 (Fed.Cir.1999) ... [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 ... Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification ... Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean." *Innova,* 381 F.3d at 1116. Those sources include "the words of the claims themselves, the remainder of the

specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id.* ... "[T]he best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history." *Multiform Desiccants,* 133 F.3d at 1478 ... [W]hile extrinsic evidence "can shed useful light on the relevant art," we have explained that it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.' " C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed.Cir.2004) ... Within the class of extrinsic evidence, the court has observed that dictionaries and treatises can be useful in claim construction. *Renishaw,* 158 F.3d at 1250 ... [J]udges are free to consult dictionaries and technical treatises "at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." [*Vitronics*], at 1584 n. 6.

Phillips, 415 F.3d at 1312-1323.

Claim 1 of the "2 patent **states**

We claim:

1. A desiccant container comprising

a desiccant material surrounded by a laminated, water vapor permeable desiccant packaging material, wherein said packaging material comprises an uncoated microporous film having an inner and outer surface heat sealed to an uncoated laminate film having an inner and outer surface, wherein the uncoated microporous film comprises a different composition from the uncoated laminate film, wherein edges of the inner surface of the uncoated microporous film are sealed to edges of the inner surface of the uncoated laminate film, and wherein the inner surface of the uncoated microporous film and the inner surface of the uncoated laminate film are comprised of compatible polymeric materials.

The "2 patent teaches a new desiccant container for absorbing water vapor without releasing water from the container. The invention of this desiccant container is the packaging material which surrounds the desiccant material. The patent abstract notes that this packaging material is less expensive to form and produces a stronger bond than conventional coated materials used for desiccant packaging. The packaging material claimed is a laminated, water vapor permeable desiccant packaging material made of an uncoated microporous film secured to an uncoated laminate film wherein the inner surface of both the microporous film and the laminate film are of compatible polymeric materials.

The parties dispute the meaning of the terms claiming certain elements which comprise the packaging material. The parties disagree on the proper construction of the terms "microporous film," "uncoated," "laminated," "laminate," "water vapor permeable," and "surrounded by." We will address these terms in turn.

A. "microporous film"

One of the two films of Claim 1 is an "uncoated microporous film ." The proposed Claim 1 recited a "a microporous or nonwoven film" which was amended by agreement to "microporous film." FN1 The patent examiner noted in his interview summary that Mr. Cox, counsel for the applicant inventors, "agreed to the deletion of the phrase 'or nonwoven' within the claims as it was being used with respect to a film, which is recognized within the art as a single sheet structure, which may or may not be laminated, but is definitely not of a structure incompassing [sic] woven or nonwoven properties, which are indicative of a web, batt, mat, mesh, or pad, for example, but not a film."

FN1. The Examiner's Interview Summary and the Examiner's Amendment both indicate that "or nonwoven" was to be deleted from Claims 1, 2, 3, 5, 6, 9, and 10. Claim 1 is the only independent claim of the "2 patent. The "2 patent issued without the deletion of "or nonwoven" from Claim 10. The court assumes that

this was a typographical error.

The defendant, Multisorb Technologies, Inc., contends that the deletion of the phrase "or nonwoven" constituted a disclaimer of all woven and nonwoven materials from Claim 1's "film." We do not find Multisorb's argument for the narrowing of "film" availing.

Claim 1 does not define "film." We find, however, that when read together, the specification and prosecution history support the conclusion that there was no narrowing of the scope of "film" by amendment. In order to find a narrowing of the claim, there must be evidence of a clear and unambiguous disavowal of claim scope. Salazar v. Proctor & Gamble, Co., 414 F.3d 1342, 1347 (Fed.Cir.2005). We do not find such evidence in this case.

The inventors agreed to the deletion of the phrase "or nonwoven" on the basis that "film" is not a structure encompassing woven or nonwoven properties. The statement of reasoning offered by the patent examiner does not evidence Multisorb'c contention that "nonwoven film," as a subset of "film" was excluded from the definition of the term "film" in order to obtain allowance of the claim. Rather the examiner indicated that "woven" and "nonwoven" were not properties of film and therefore "nonwoven" was not to be used with respect to "film." The examiner's notation concerning the agreement indicates that, in his view, woven or nonwoven properties indicate or are descriptive of a web, batt, mat, mesh, or pad, but not a film. The agreement of the inventors was not acquiescence to a narrowing of the scope of films in issue, however. There was no discussion of a prior art preclusion to be overcome by the proposed amendment. Rather, the examiner's focus was on the descriptive terminology employed relative to "film," concluding that woven and nonwoven properties are not indicative of a film. This is not the same, however, as disclaiming nonwoven materials from Claim 1, as urged by Multisorb. Rather, the claim as amended recites "microporous film," which is to be given its common and ordinary meaning. There is no dispute concerning the ordinary definitions of "microporous" and "film." We leave for another day the question of whether any given material is a "microporous film" of Claim 1. We conclude only that the examiner's amendment did not narrow the scope of the term.

The court's reading of the prosecution history is in harmony with the Background of the Invention in the "2 patent in which the inventors described desiccant containers in the prior art as generally "comprised of a water or water vapor permeable packaging material formed from fibrous or film products." Additionally, reference is made therein to two prior art patents to Inoue which recite "nonwoven cloth laminated onto several layers of a plastic film," and "nonwoven fabric or microporous film laminated to various plastic films." The inventors' description of the art within which they were inventing suggests that the property of wovenness was not associated with films. Indeed, the '175 patent to Inoue recited "nonwoven" with respect to fabric and "microporous" with respect to film.FN2

FN2. This reference to prior art is illustrative only. The comment is not to be construed as determining the applicability of "nonwoven" in any other context than with respect to the conclusion that "film" did not have properties of wovenness, in the patent examiner's view. As noted herein, we leave to another day whether any given material is a "microporous film" of Claim 1 of the "2 patent.

Because of the patent examiner's comment that in the art, "film" did not encompass the property of wovenness, the court cannot find a clear and unmistakable disclaimer. Therefore, we conclude that the claim as amended recites a "microporous film" not narrowed in scope by the amendment deleting "or nonwoven."

The Preferred Embodiment states that the microporous film "comprises a film having a plurality of fine openings, which film is gas permeable, but water impermeable when there is no difference between the air pressure outside of the film and inside of the film." It states that it may constitute a single layer or may

comprise a laminate of separate microporous film layers, and may be prepared by any conventional film forming process.

B. "uncoated"

The plaintiff, Sud-Chemie, Inc. urges that "uncoated," as that term is used in the "2 patent, means uncoated with an adhesive. Multisorb contends that the term should be given its common dictionary definition of "not being covered with a layer;" that is, uncoated with anything.

We first refer to the words of the claim itself as informed by the patent specification. Claim 1 does not refer to adhesive. It does not specifically define the term "uncoated." Rather, the claim states that two films which comprise the packaging material are "uncoated" and are heat sealed together by sealing the edges of the inner surfaces of the films together. The heat seal is accomplished, according to Claim 1, by utilization of an uncoated microporous film and an uncoated laminate film whose inner surfaces are comprised of compatible polymeric materials.

While the claim does not define "uncoated" as uncoated with an adhesive, the patent specification makes clear that that is how the term is used in claiming this invention. The court noted in the *Phillips* case that "judges are free to consult dictionaries ... so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." Phillips, 415 F.3d at 1323, *quoting, Vitronics,* at 1584, n. 6. Thus the more general dictionary definition of "uncoated" must be abandoned in favor of the inventor's own lexicography, where it exists. The patent as a whole dictates a particular or specialized use of the term "uncoated."

In the Background of the Invention, the inventors stated:

While these [prior art] references disclose multilayered packaging materials, some of which are used with desiccant materials, there are still some significant problems in the production of a packaging material for desiccant containers and their use with specific types of desiccant materials. During the production of conventional laminated packaging materials, at least one side of the packaging material is generally coated with an adhesive. This adhesive is heated to bind the two layers together. because of this adhesive, it is difficult for the equipment utilized to form the desiccant packaging to work at peak capacity. Weak seals, which are frequently formed using this equipment often result in significant down time for the equipment. In addition, films laminated with adhesives do not form strong bonds between the layers, which is desirable for desiccant packaging. In addition, because coated films are more expensive than uncoated films, packaging material formed using coated films tends to be more expensive than laminated films formed from uncoated films. Therefore, it is an object of the invention to disclose a desiccant container containing a desiccant material encapsulated by a laminated, water vapor permeable desiccant packaging material formed using conventional form-fill sealing equipment ...

In the Preferred Embodiment the inventors stated:

Conventional ... films used for the manufacture of a laminated packaging material have been formed into a composite film bonded to another layer of material. Conventionally, the bonding of the two layers is accomplished by the use of an adhesive which coats one or both of the inside surfaces of the layers. It has been surprisingly discovered that strong, laminated desiccant packaging materials can be produced from uncoated ... films ... By having the two inner surfaces formed from compatible materials, a strong bond is formed between those layers when they are heat sealed together ... In addition, it is also critical that the inner surface of both ... be uncoated with an adhesive. Coated film, when sealed to other coated or uncoated films, frequently form poor quality, weak seals ... One of the advantages of the product formed from the instant invention ins that the bond formed from the two compatible, uncoated materials has a significantly greater strength than conventional bonds utilizing an adhesive coating. By utilizing the capability of compatible

materials to form a strong seal without adhesive, the strength of the desiccant packaging material is significantly increased over conventional packaging materials.

The Background of the Invention describes a problem in the art of desiccant containers comprised of multilayered packaging materials. Conventionally, one or both of the films used in the production of a laminated packaging material for desiccant containers was coated with an adhesive. That adhesive was used to bind the two layers. Binding with adhesive was problematic for the heat sealing machines and resulted in weak seals. The Preferred Embodiment of the "2 patent described the advantage of the invention as "utilizing the capability of compatible materials to form a strong seal without adhesive," noting that "[i]t has been surprisingly discovered that strong, laminated desiccant packaging materials can be produced from uncoated ... films." The inventors also noted that it is "critical that the inner surface of both ... be uncoated with an adhesive." Reading the "2 patent as a whole, the term "uncoated" as used in Claim 1 means uncoated with an adhesive.

C. "laminated" and "laminate"

Sud-Chemie contends that the terms "laminated" and "laminate" must be given their ordinary meaning in the context of the "2 patent. Mulitsorb urges that these terms should be construed to mean formed from two or more layers attached by an adhesive.

The court must again start with the claim in which the term appears. Claim 1 recites a desiccant container comprising a dessicant material "surrounded by a laminated, water vapor permeable desiccant packaging material." This packaging material comprises "an uncoated microporous film having an inner and outer surface heat sealed to an uncoated laminate film ..." The term "laminated" describes the "water vapor permeable packaging material" which is comprised of the laminate film heat sealed on its inner uncoated surface to the uncoated microporous film of Claim 1. The term "laminated" is not defined in Claim 1. The term "laminate" also lacks a particular definition in Claim 1. It merely modifies one "film" of the invention.

The parties agree that "laminated" and "laminate" mean "two or more bonded layers" when that term is applied to films. They diverge on the question of whether the patent defines the terms to more particularly require adhesive lamination of the films comprising this invention.

The inventors described adhesive lamination in the prior art in the Background of the Invention. In describing the prior art patent to Nawata, they stated that "[t]he lamination process utilizes a low melting temperature adhesive secured to the inside surface of a microporous material to laminate the microporous film to the gas permeable layer. *Alternatively, a portion of the gas permeable sheet can be melted to secure it to the microporous layer*. " [emphasis added]. The inventors thus noted that lamination was the securing together of layers via various methods. Similarly, in referencing the prior art patent to Inoue, they described "[t]he plastic films that are laminated to the paper may comprise a laminate themselves comprised of a plastic film with a high softening point *secured to* a plastic film with a low softening point." [emphasis added]. This description noted that one plastic film was "secured to" another plastic film through a softening process. The inventors also stated that films laminated with adhesives do not form a strong bond between the layers, a problem that their invention addressed. In the Preferred Embodiment, they stated that the uncoated laminate film of the invention "can be comprised of different layers of the same or different materials *laminated together*. " [emphasis added]. The patent specification does not contain a specialized definition of "laminated" or "laminate." Therefore, the ordinary meaning controls. As utilized in the "2 patent, "laminated" or "laminate" means "two or more bonded layers."

D. "water vapor permeable"

Claim 1 recites a "laminated, water vapor permeable desiccant packaging material." The claim does not define "water vapor permeable." The parties agree that the term "microporous" is to be given its ordinary

meaning in relation to the "microporous film" of Claim 1. Thus the "microporous film" is a film having extremely small pores, or, in the terminology of the Preferred Embodiment, "having a plurality of fine openings, which film is gas permeable, but water impermeable when there is no difference between the air pressure outside of the film and inside of the film." The ordinary meaning of "water vapor permeable," that the laminated desiccant packaging material allows water vapor to pass through, is consistent with the description of the microporous film in the Preferred Embodiment which is gas permeable but water impermeable.

Multisorb would define water vapor permeability of the invention in the context of cargo shipping uses of the desiccant packages. It urges that in practicing the invention, the employment of certain microporous films with extremely low permeability would render the invention unable to accomplish its intended purpose; ie. the invention would not be efficacious in the standard 20-foot shipping containers used on overseas cargo vessels. Multisorb urges, therefore, that one skilled in the art would define "water vapor permeable" as sufficiently permeable in the practice of the patent, and would therefore exclude materials with extremely low permeability.

The preferred range of permeability expressed in the specification should not be read to limit the term "water vapor permeable" to a specified range. Intel Corp. v. U.S. International Trade Commission, 946 F.2d 821, 836 (Fed.Cir.1991)("Where a specification does not *require* a limitation, that limitation should not be read from the specification into the claims."), *quoting,* Specialty Composites v. Cabot Corp., 845 F.2d 981, 987 (Fed.Cir.1988); Lemelson v. United States, 752 F.2d 1538, 1551-52 (Fed.Cir.1985). Further, Claim 2 claims "the desiccant container of Claim 1 wherein the uncoated laminate film has a lower moisture vapor transmission rate than the microporous film." Claim 3 claims "the desiccant container of Claim 1 wherein the microporous film has an air permeability of less than about 400 Gurley seconds/100 ml." Under the doctrine of claim differentiation, the presence of limitations on permeability in dependent Claims 2 and 3 implies that such a limitation is not inherent in independent Claim 1. Phillips, 415 F.3d at 1314-15 ("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"), *citing,* Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed.Cir.2004). We conclude, therefore, that as used in the "2 patent, the term "water vapor permeable" has the ordinary meaning of "allowing water vapor to pass through."

E. "surrounded by"

Claim 1 recites "[a] desiccant container comprising a desiccant material surrounded by a laminated, water vapor permeable desiccant packaging material." Multisorb contends that as written, the claim teaches that a container formed from the laminated packaging material surrounds the desiccant material. It urges, essentially, that the packaging material must be wrapped around the desiccant material, rather than encapsulating the desiccant material between the layers of the packaging material. The court does not agree.

The term "surrounded by" is not specially defined in Claim 1. Claim 1 teaches a desiccant container. The desiccant container comprises the desiccant material surrounded by the packaging material taught in the claim. The packaging material is multilayered. Multisorb urges that because it is multilayered, it cannot "surround" the desiccant material unless all layers wrap around it. There is, however, no concept of "wrapping around" suggested in the patent Further, the ordinary meaning of "surrounded by" does not exclude disposition between the layers of the packaging material. Surround is ordinarily defined as "encircle on all sides simultaneously; To confine on all sides so as to prevent escape ..." Webster's II New Riverside University Dictionary. The desiccant material is surrounded by the packaging material as it is "secured within" or "encapsulated by" the packaging material, as described in the Background of the Invention and the Summary of the Invention. The specification is consistent with the ordinary meaning of "surround" as the desiccant material is confined on all sides or encircled on all sides by the packaging material when it is encapsulated between the layers of the packaging material.

The definition offered by Multisorb that all layers of the packaging material must be wrapped around the desiccant material is nonsensical. It reads into the claim a limitation as to the method by which the packaging material must be utilized to surround the desiccant. Nothing in the patent suggests this meaning of "surrounded by." Further, the result renders the patent inoperative as there would be no permeability. Therefore, we reject Multisorb's construction. Talbert Fuel Systems Patents Co. v. Unocal Corporation, 275 F.3d 1371 (Fed.Cir.2002)(patent claim construction rendering invention inoperable viewed with extreme skepticism). The ordinary meaning of the term "surrounded by" controls. "Surrounded by" means "encircle on all sides" or "confined on all sides," for purposes of the "2 patent.

In summary, the court concludes that the terms "microporous film," "laminated," "laminate," "water vapor permeable," and "surrounded by" are to be given their common, ordinary meanings as set forth herein. The term "uncoated" means uncoated with an adhesive, for purposes of Claim 1 of the "2 patent.

IT IS SO ORDERED.

W.D.Ky.,2006.
Sud-Chemie, Inc. v. Multisorb Technologies, Inc.

Produced by Sans Paper, LLC.