

United States District Court,
N.D. Georgia, Newnan Division.

KLEEN-TEX INDUSTRIES, INC,
Plaintiff.

v.

MOUNTVILLE MILLS, INC,
Defendant.

Civil Case No. 3:03-CV-093-JTC

Oct. 30, 2006.

John L. North, Troy R. Covington, Sutherland Asbill & Brennan, Thomas Edward Reilly, Troutman Sanders, David C. Holloway, Kilpatrick Stockton-Atlanta, Atlanta, GA, for Plaintiff.

James Scott Anderson, Jeffrey Brickman, Lawrence K. Nodine, Robin L. Gentry, William H. Needle, Needle & Rosenberg, Atlanta, GA, for Defendant.

ORDER

JACK T. CAMP, District Judge.

This matter is currently before the Court for construction of the disputed terms in U.S. Patent No. 6,468,622 ("the '622 patent"). In approaching this task, the Court is reminded of the familiar debate on language between Alice and Humpty Dumpty:

"When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean-neither more nor less."

"The question is," said Alice, "whether you can make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master-that's all."

Lewis Carroll, *Through the Looking-Glass* 205 (Charles L. Dodgson ed., 1934) (1872).

I. Background

Plaintiff Kleen-Tex Industries, Inc. ("Kleen-Tex") is the assignee of the '622 patent, which relates to a track control mat and method of making the same. In general terms, the invention claimed in the '622 patent is directed to washable carpet mats placed near building entrances and used to remove dirt and moisture from a person's shoes as he enters. Claim 1, the broadest of the independent claims, is representative of the invention:

1. A process for making a machine washable track control mat, comprising the steps of:

twisting together at least one coarse denier fiber with at least one fine denier fiber to create a yarn;

tufting the yarn through a substrate to form a plurality of tufts in the backing; and

bonding the tufts to the substrate with vulcanized rubber such that the mat is machine washable without substantial degradation of tufts,

the steps of tufting and bonding carried out so that the tufts are structured and arranged in the backing such that the tufts remove and store dirt and moisture in voids between the tufts to control tracking of dirt and moisture.

'622 patent, col. 6, ll. 37-50.

In Claim 1, the parties dispute the meaning of "machine washable," "coarse denier fiber," "fine denier fiber," "a yarn," "plurality," "tufts," "a plurality of tufts," "the backing," "the mat is machine washable without substantial degradation of tufts," and "substantial degradation of tufts." In Claims 3-5, the parties dispute the meaning of "the yarn." In Claim 7, the parties dispute the meaning of "each of the plurality of tufts," in addition to all claim terms disputed in Claim 1, with the exception of "the backing." In Claims 8 and 10, the parties dispute the meaning of "machine washable" and "the yarn." Finally, the parties dispute the meaning of "machine washable" in Claim 11.

On August 2, 2006, the Court held a *Markman* hearing, at which the parties provided argument and evidence in support of their positions. Prior to the hearing, the Court provided the parties with a draft version of the Court's claim construction Order in an effort to streamline the hearing and focus the parties' arguments. This experiment was successful; of the eleven distinct terms identified by the parties to be at issue for construction, at the hearing the parties focused only on four: "coarse denier fiber," "fine denier fiber," "plurality," and "each of the plurality of tufts." This Order provides the Court's final construction of all terms presently at issue in this case.

II. Claim Construction Standard

Claim construction is a question of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). It is 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) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed.Cir.2004)). Generally, the words of a claim are 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" *Id.* at 1312-13 (citations omitted).

In some instances, the meaning of a claim term as understood by someone with skill in the art "may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. In most instances, however, the Court must go further than the readily understood meaning. In such cases, sources available to

the public aid the Court in determining the meaning of claim language. *Id.* These 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.* (quoting *Innova*, 381 F.3d at 1116).

"[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* Both "the context in which a term is used in the asserted claim" and the "[o]ther claims of the patent in question" are useful for understanding the ordinary meaning. *Id.*

"[T]he 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.'" *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic*, 90 F.3d 1576, 1582 (Fed.Cir.1996)). In short, the claims "must be read in view of the specification, of which they are a part." *Markman*, 52 F.3d at 979. Thus, "[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." *Phillips*, 415 F.3d at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998)). On occasion, "the specification may reveal a special definition given to a claim term ... that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Id.* (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed.Cir.2002)). In other instances, the specification may "reveal an intentional disclaimer, or disavowal, of claim scope by the inventor.... In that instance as well, ... the inventor's intention, as expressed in the specification, is regarded as dispositive." *Id.* (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 (Fed.Cir.2001)).

The Court should also consider the patent's prosecution history. *Id.* at 1317. "Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent." *Id.* (citing *Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1206 (Fed.Cir.1992)). However, unlike the specification, the prosecution history "represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation" *Id.* For that reason, the prosecution history "often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.*

Finally, the Court may also rely on extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Id.* (quoting *Markman*, 52 F.3d at 980.) For example, because they "endeavor to collect the accepted meanings of terms used in various fields of science and technology," "dictionaries, and especially technical dictionaries, ... have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology" *Id.* at 1318 (citing *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed.Cir.2002)). However, for many reasons, external evidence is generally less reliable than the intrinsic record. *Id.* For instance, "extrinsic evidence by definition is not part of the patent and does not have the specification's virtue of being created at the time of patent prosecution for explaining the patent's scope and meaning." *Id.* In addition, "extrinsic evidence consisting of expert reports and testimony is 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.*; *see also id.* at 1318-19 (providing more reasons why extrinsic evidence is less reliable than intrinsic evidence).

During claim construction, "[t]he sequence of steps used by the judge in consulting various sources is not important; what matters is for the court to attach the appropriate weight to be assigned to those sources in light of the statutes and policies that inform patent law." *Id.* at 1324.

III. Analysis

The parties dispute the construction of eleven distinct terms, some of which appear in more than one claim. Generally, a "claim term should be construed consistently with its appearance in other places in the same claim or in other claims of the same patent." *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed.Cir.2001); *see also* *Phonometrics, Inc. v. Northern Telecom, Inc.*, 133 F.3d 1459, 1465 (Fed.Cir.1998) ("A word or phrase used consistently throughout a claim should be interpreted consistently.") The parties have provided no reason to depart from the general rule in this case. Accordingly, the Court will construe a disputed term once, with the understanding that its construction will apply throughout the various claims.

Only the following terms are currently at issue:

"machine washable"

"Machine washable" appears in the preamble and body of all independent claims, although when it appears in the body it is coupled with the phrase "without substantial degradation of the tufts." The Court is here concerned with the term as it appears in the preamble. *See, e.g.*, '622 patent, col. 6, ll. 36-38 ("We claim ... [a] process for making a machine washable track control mat, comprising the steps of ..."). Kleen-*Tex* argues that "machine washable" as used in the preamble is not limiting and therefore needs no construction. Mountville argues that "machine washable" should mean "subject to commercial washing without degradation of tufts."

A claim's preamble does not generally serve to limit the claim. *Allen Eng. Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed.Cir.2002) (citation omitted). In order to determine whether it is limiting, "the preamble is analyzed to ascertain whether it states a necessary and defining aspect of the invention, or is simply an introduction to the general field of the claim." *On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1343 (Fed.Cir.2006). The inquiry has also been described as whether the preamble is "necessary to give life, meaning and vitality to the claims" *Id.* (quoting *Kropa v. Robie*, 38 C.C.P.A. 858, 187 F.2d 150, 152 (C.C.P.A.1951)).

The general purpose of track control mats is to remove dirt and moisture from the bottom of a person's shoes as he enters a house or building. '622 patent, col. 1, ll. 23-30. Mats located at high traffic commercial or public buildings must be able to remove and store a corresponding high volume of dirt and moisture. *Id.*, col. 1, l. 66-col. 2, l. 2. In order to remain effective at removing these unwanted substances, track control mats must be cleaned periodically, which is most effectively accomplished through washing. *Id.*, col. 2, ll. 2-9. Accordingly, the specification represents that track control mats "should be manufactured in a manner that will withstand continued exposure to washing and drying." *Id.*, col. 2, ll. 15-17.

It is evident from the specification that being "machine washable" is not a defining feature of the invention. The defining feature is instead that the method in which the mat is manufactured gives it added or superior resilience to repeated washings. *See, e.g.*, '622 patent, col. 2, ll. 23-25 ("Many commercially available track control mats at present exhibit poor tuft lock and, as a result, are ineffective for reuse after washing."); *id.*, col. 2, ll. 61-65 ("[W]hen the mat [made according to U.S. Pat. No. 4,820,566] is used and washed, many of the coarse fibers become dislodged from the backing. This renders the mat less effective in dirt and moisture removal and storage after a short period of time.") This virtue is discussed more thoroughly in a comparison between a first mat manufactured in accordance with the '622 patent and a second mat made in accordance with U.S. Pat. Nos. 4,820,566 ("the '566 patent") and 5,055,333 ("the '333 patent"). According to the

specification, both mats were washed twenty times and compared:

The mat made in accordance with the ['622 patent] showed no significant loss of coarse or fine fiber. However, the mat made in accordance with the '566 and '333 patents showed significant loss of coarse fiber. This test demonstrates the capability of the present invention to achieve effective tuft-lock and maintain such tuft-lock *after many washings*.

Id., col. 6, ll. 3-9 (emphasis added).

Thus, the words "machine washable" merely state an introduction to the general field of the claim, and are not necessary to give it "life, meaning, and vitality." Accordingly, to the extent it appears in the preamble, the term "machine washable" is not limiting and need not be construed.

"coarse denier fiber"

Kleen-Tex argues that "coarse denier fiber" should be construed to mean a "fiber that ranges in denier from 100 to 2,000 denier per filament." Mountville asserts that this term should be limited to an "uncrimped fiber having a denier of 300-600 and used to increase the abrasiveness of a carpet."

The first issue with respect to this term is the appropriate denier range. The specification teaches that "[t]he degree of coarseness or fineness of a fiber is measured by its denier. The term 'denier' refers to the weight in grams for a 9,000 meter fiber. A coarse fiber or filament for use in track control mats typically ranges in denier from 100 to 2,000 denier per filament" '622 patent, col. 1, ll. 60-64. Thus, the specification defines the denier range for "coarse denier fiber" as "100 to 2,000 denier per filament." *Cf. Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1478 (Fed.Cir.1998) ("The best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history.")

In an attempt to rebut this definition, Mountville points to a portion of the specification stating that "the denier range for the coarse fibers [] is 300-600." *Id.*, col. 5, ll. 3-4. However, the denier range cited by Mountville is clearly disclosed in the context of explaining a preferred embodiment of the invention. Generally, examples set forth in the specification may not be used to narrow the scope of the claims, unless the patentee intends the claims and the preferred embodiment to be "strictly coextensive." *Phillips*, 415 F.3d at 1323; *see also Vulcan Eng'g Co., Inc. v. Fata Aluminium, Inc.*, 278 F.3d 1366, 1376 (Fed.Cir.2002) ("This court has often explained that the claims are construed in light of the specification, and are not limited to a designated 'preferred embodiment' unless that embodiment is in fact the entire invention presented by the patentee."). It is apparent that the specification's later recitation of a coarse denier fiber with denier between 300 and 600 is merely an example of a preferred embodiment, and was not intended to limit or redefine the term. *See Phillips*, 415 F.3d at 1323 ("Much of the time, upon reading the specification in that context, it will become clear whether the patentee is setting out specific examples of the invention ..., or whether the patentee intends for the claims and the embodiments to be strictly coextensive.") Moreover, to the extent that the specification's definition would conflict with how the term is understood by one with ordinary skill in the art, the lexicography set forth in the specification prevails. *See id.* at 1316. Because the specification makes plain that coarse fibers have a denier range between 100 and 2,000, the Court construes them as such.

The second, and more difficult, issue is whether "coarse denier fiber" should be construed to include both crimped and uncrimped fibers, or whether it includes only fibers that are uncrimped. Put another way, the

issue is whether Kleen-Text somehow disclaimed crimped fibers in the specification or during the '622 patent's prosecution.

The Court looks first to the words of the claims themselves, *cf.* Phillips, 415 F.3d at 1314, which do not support limiting "coarse denier fiber" to crimped fibers. For example, Claim 1 describes a process for making a track control mat, one step of which is "twisting together at least one coarse denier fiber with at least one fine denier fiber to create a yarn" '622 patent, col. 6, ll. 39-40. Although the patent could have claimed an "uncrimped coarse denier fiber," it does not make a distinction between crimped and uncrimped coarse denier fibers in the relevant claims. Moreover, Claim 6, a claim dependent on Claim 1, describes "[t]he process of claim 1 wherein the coarse denier fiber is an uncrimped fiber capable of scraping action." Under the doctrine of claim differentiation, "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 1315. In this case, the presence of the limitation in Claim 6 that the coarse denier fiber be uncrimped gives rise to the presumption that Claim 1 does not contain that limitation.

Mountville makes two arguments why the presumption should be rebutted in this case. First, it argues that the specification disclaims crimped fibers through its discussion of the disadvantages of prior art track control mats using them. In this regard, Mountville points to a discussion of the '566 patent:

The '566 patent also describes a mat made with at least some crimped coarse fibers. Mats manufactured in accordance with the '566 patent are extremely difficult to manufacture because the crimped fibers kink up as they are fed through the tufting needles which causes the fibers to eventually break.... The frequent breakage of the crimped coarse fibers results in a significant decrease in productivity. In addition, mats using crimped fibers are also more expensive to manufacture due to the added process cost of crimping the fiber.

'622 patent, col. 2, l. 66-col. 3, l. 14. Consequently, it argues that Kleen-Text overcame the difficulties associated with crimped coarse fibers by using uncrimped coarse fibers.

Disclaimer, via the specification or prosecution history, requires "expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Teleflex, Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1325, 1326 (Fed.Cir.2002); *see also* *Gemstar-TV Guide Int'l, Inc. v. ITC*, 383 F.3d 1352, 1366 (Fed.Cir.2004). Merely discussing the disadvantages of a particular feature in the prior art does not operate as a disclaimer of that feature. *See* *Gemstar-TV*, 383 F.3d at 1366 (holding even where specification went so far as stating that "innovative cursor" was "required," such statement did not act as disavowal or disclaimer of prior art conventional cursors). In this case, Kleen-Text's discussion of the problems associated with crimped fibers does not act as an "expression of manifest exclusion or restriction" of all crimped fibers. Indeed, the specification contains discussion of a variety of disadvantages of prior art mats, including mats having uncrimped fibers, *see* '622 patent, col. 3, ll. 15-25, or mats which use both fine and coarse fibers but separate them. *Id.*, col. 2, ll. 47-65.

Defendant Mountville relies primarily on the decision in *Astrazeneca AB, v. Mutual Pharm. Co.*, 384 F.3d 1333 (Fed.Cir.2004), in which the Federal Circuit held that "[w]here the general summary or description of the invention describes a feature of the invention ... and criticizes other products ... that lack that same feature, this operates as a clear disavowal of these other products (and processes using these products)." *Id.* at 1340. Utilizing this standard, the court found disclaimer in *Astrazeneca* where: (1) "the inventors deliberately acted as their own lexicographers" in the specification by stating that "[t]he solubizers suitable according to this invention *are defined below*"; (2) the specification twice described a certain characteristic

of the invention "as a feature of the novel formulation structure conceived by the inventors"; and (3) immediately after reference to that feature criticized products not possessing that characteristic. *See id.* at 1339, 1340 (emphasis added). In this case, the '622 patent does indeed criticize crimped fibers to some extent in discussing the '566 patent. Nowhere, however, does it "define" the types of fibers suitable for use in the invention as uncrimped fibers, nor does it describe uncrimped fibers as a feature of the invention. Simply put, the '622 patent's discussion of the problems associated with crimped fibers does not rise to the level of an "expression of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Teleflex*, 299 F.3d at 1325.

In addition, Mountville argues that Kleen-Tex disclaimed crimped coarse denier fibers during prosecution, when it filed an Information Disclosure Statement ("IDS") and a Preliminary Amendment. The IDS cited five prior art references, including the Alazet reference, *see* Prosecution History FN1 at 66-71, and the Preliminary Amendment cancelled all of the previously presented claims and presented new claims including the limitation that "the coarse denier fiber is an uncrimped fiber capable of scraping action." *See id.* at 72-79. The Preliminary Amendment also included the boilerplate language: "The new claims are believed to distinguish over the art cited" *Id.* at 75. Mountville believes that this amendment, in view of the Alazet reference, which describes the twisting together of two types of bristles to form a yarn, forever disclaimed crimped coarse denier fibers. Were this the only discourse preceding issuance of the '622 patent, Mountville's argument might be more persuasive. But the file history reveals that in the first Office Action from the PTO, all claims were rejected without mention of the Alazet reference, and Kleen-Tex subsequently amended the claims and removed the limitation in question. And as illustrated in the '622 patent, the claims eventually issued without this "uncrimped" limitation.

FN1. Citations to "Prosecution History" track the tabbed and paginated prosecution history of the '622 patent provided by Plaintiff Kleen-Tex at the August 1 *Markman* hearing.

As discussed above, a finding of disclaimer follows only from "expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope." *Teleflex*, 299 F.3d at 1325, 1326. Moreover, the Federal Circuit has held that a disclaimer of subject matter in the prosecution history must be "clear and unmistakable." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed.Cir.2003). The file wrapper excerpt cited by Mountville does not make clear the underlying objectives of either the PTO or the applicants. Mountville argues that a member of the public reading this portion of the prosecution history would understand that the applicants were giving up, or disclaiming, crimped fibers by adding this limitation. (*See Markman* Hr'g Tr. at 13-18.) However, because the prosecution history "represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation," *Phillips*, 415 F.3d at 1317, it is equally plausible that a member of the public could read the remainder of the prosecution history, whereby the applicants removed the "uncrimped" limitation, and perceive that the applicants were declaring their right to coarse fibers crimped and uncrimped alike, and/or were attempting to reclaim any claim scope temporarily surrendered during the course of their negotiation with the PTO. What these two possibilities demonstrate is that the prosecution history does not evince a "clear and unmistakable" disclaimer of crimped coarse denier fibers.

In view of the foregoing, the Court construes "coarse denier fiber" as a "fiber that ranges in denier from 100 to 2,000 denier per filament."

"fine denier fiber"

Kleen-Tex asserts that "fine denier fiber" should be construed to mean a "fiber that ranges in denier from 15 to 100 denier per filament." Mountville seeks a construction that would define the term as a "fiber having a denier of no more than 7 or 8."

The specification defines fine denier fibers for use in track control mats as "typically rang[ing] from 15 to 100 [denier per filament]." '622 patent, col. 1, ll. 64-65. Thus, the specification indicates that the applicants understood the term as such and supports Plaintiff's construction of "fine denier fiber." *See Merck & Co. v. Teva Pharms. USA, Inc.*, 347 F.3d 1367, 1371 (Fed.Cir.2003) ("A fundamental rule of claim construction is that terms in a patent document are construed with the meaning with which they are presented in the patent document.") Defendant Mountville presents two arguments in opposition. First, it asserts, relying upon the testimony of David Hart, President of Mountville, that "[a]s used in this industry, the term 'fine denier fiber' is understood to refer to a fiber which has a denier of no more than 7 or 8 denier." (Hart Decl., para. 7.) Though expert testimony is helpful to provide background on the technology at issue, or to demonstrate how a person with skill in the art would understand a term, the Federal Circuit has cautioned that "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful" Phillips, 415 F.3d at 1318. Moreover, it has instructed district courts to "discount any expert testimony 'that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.'" *Id.* (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed.Cir.1998)). Mr. Hart's testimony is not sufficient to overcome the construction mandated by the specification—that is, that fine denier fibers "typically range from 15 to 100 [denier per filament]." Moreover, to the extent that this definition deviates from how "fine denier fiber" would be understood by a person with ordinary skill in the art, as alleged by Mr. Hart, the patentee is permitted to define the term as he pleases. *See id.* at 1316 ("[T]he 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.") (citation omitted).

Second, Mountville points to the specification's later disclosure of fine denier fibers between 20 and 24, *see* '622 patent, col. 5, ll. 2-3, and argues that this disclosure either redefines "fine denier fiber," or else creates "inherent confusion" requiring the use of extrinsic evidence. These assertions are without merit. The specification clearly discloses these fibers between 20 and 24 in the context of explaining a preferred embodiment of the invention. *See* '622 patent, col. 5, ll. 2-3 ("The denier range for the fine fibers [] is *preferably* between 20 and 24") (emphasis added). Examples set forth in the specification may not be used to narrow the scope of the claims, unless the patentee intends the claims and the preferred embodiment to be "strictly coextensive." Phillips, 415 F.3d at 1323; *see also* *Vulcan Eng'g*, 278 F.3d at 1376 ("This court has often explained that the claims are construed in light of the specification, and are not limited to a designated 'preferred embodiment' unless that embodiment is in fact the entire invention presented by the patentee."). The specification's later recitation of a fine denier fiber with denier between 20 and 24 is merely an example of a preferred embodiment, and was not intended to limit or redefine the term. *See* Phillips, 415 F.3d at 1323 ("Much of the time, upon reading the specification in that context, it will become clear whether the patentee is setting out specific examples of the invention ..., or whether the patentee intends for the claims and the embodiments to be strictly coextensive.")

Finally, it is also worth noting that Mountville's proposed construction would not include the '622 patent's preferred embodiment, which further supports the Court's construction. As frequently noted by the Federal Circuit, "A claim construction that excludes a preferred embodiment ... 'is rarely, if ever, correct.'" *SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1285 (Fed.Cir.2005) (citation omitted).

Accordingly, the Court construes "fine denier fiber" to mean a "fiber that ranges in denier from 15 to 100 denier per filament."

"a yarn"

Kleen-Tex argues that no further words are necessary to construe this term and that "a yarn" should simply be accorded its plain and ordinary meaning. Mountville suggests the term should be construed as "the result of twisting together at least two fibers."

Before moving on to the term's construction, the Court will address Kleen-Tex's argument that no further words are necessary to construe it, a position it takes with respect to several terms. In considering this argument, the Court is mindful of the Federal Circuit's persistent post- *Markman* statements that "the trial judge has the duty and responsibility to interpret the claims at issue." *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1556 (Fed.Cir.1995); *see also* *AFG Indus., Inc. v. Cardinal IG Co., Inc.*, 239 F.3d 1239, 1247 (Fed.Cir.2001) ("It is critical for trial courts to set forth an express construction of the material claim terms in dispute"). The Court has uncovered some cases in which a court declined to construe a term, such as where it would be readily understood in its ordinary, everyday sense. *See* *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1349 (Fed.Cir.2001) (holding district court did not err when it declined to construe "melting" when the meaning of "melting" did not depart from its ordinary meaning or otherwise require construction); *Applera Corp. v. Micromass UK Ltd.*, 186 F.Supp.2d 487, 524, 526 (D.Del.2002) (declining to construe "maintaining," "maintain," and "whereby," where terms were used in their ordinary sense or meaning was "self-evident"); *Zip Dee, Inc. v. Domestic Corp.*, 63 F.Supp.2d 868, 872 (N.D.Ill.1998) (no construction of "tension" required beyond "ordinary English language meaning" and patent's references to "tension" would "go to jury without the interposition of any judicial gloss"). Unlike the words in these cases, however, the ordinary meaning of "a yarn" is not "self-evident." Thus, it is the Court's obligation to construe it.

In all instances that "a yarn" appears in the specification, it reveals that "a yarn" results from the twisting together of at least two fibers. For example, the specification summarizes the invention as "provid[ing] a washable track control mat comprising tufts with at least one tuft being made of a yarn that is made of at least one fine denier fiber and at least one coarse denier fiber." '622 patent, col. 3, ll. 60-63; *see also* *id.*, col. 4, ll. 2-4 ("The method [for manufacturing the present invention] includes twisting together at least one coarse denier fiber with at least one fine denier fiber to create a yarn."). These disclosures indicate that "a yarn" is the result of twisting together two or more fibers. Indeed, common sense would support such a construction because a single fiber, standing alone, would still be a fiber, not a yarn.

Thus, the Court construes "a yarn" as "the result of twisting together at least two fibers."

"plurality"

Plaintiff Kleen-Tex asserts that "plurality" should be construed as "at least two." Defendant Mountville proposes it should be construed to mean "where a first type of tuft is present in an amount or number which is greater than a second but different type of tuft which is present." Though creative, Mountville's argument fails for several reasons.

Generally, the term " 'plurality,' when used in a claim, refers to two or more items, absent some indication to the contrary." *Dayco Prods., Inc. v. Total Containment, Inc.*, 258 F.3d 1317, 1327-28 (Fed.Cir.2001) (citation omitted). There is no indication to the contrary in this case. First, the specification's use of that

term is consistent with a construction of "at least two." Although Mountville points to portions of the specification which it believes to "clearly establish" that Kleen-Tex is using the term according to its construction, its position does not withstand close scrutiny. In this regard, Mountville points to two excerpts:

The tufts 12 each include a yarn 14 made of a plurality of fine fibers 16 and one coarse fiber 18. '622 patent, col. 4, ll. 59-61.

The yarn 14 ... is made of a plurality of fine fibers 16 twisted with one or more coarse fibers 18. *Id.*, col. 4, l. 67-col. 5, l. 2.

Notably, although Mountville attempts to define "plurality" by reference to tufts, it only points to portions of the specification discussing fibers. Even so, while a strained reading of these passages might lead one to conclude that the patentee contemplated a yarn where "the fine fibers are present in an amount or number which is greater than the coarse fibers" (Def.'s Opening Brief at 21), and consequently that any reference to "plurality" means where one thing is present in an amount greater than another thing, the cited portions of the specification certainly do not compel that meaning. For example, a careful look at the second passage cited by Mountville actually betrays its construction, since the plain meaning of "one or more" coarse fibers could equal or exceed the number of fine fibers.

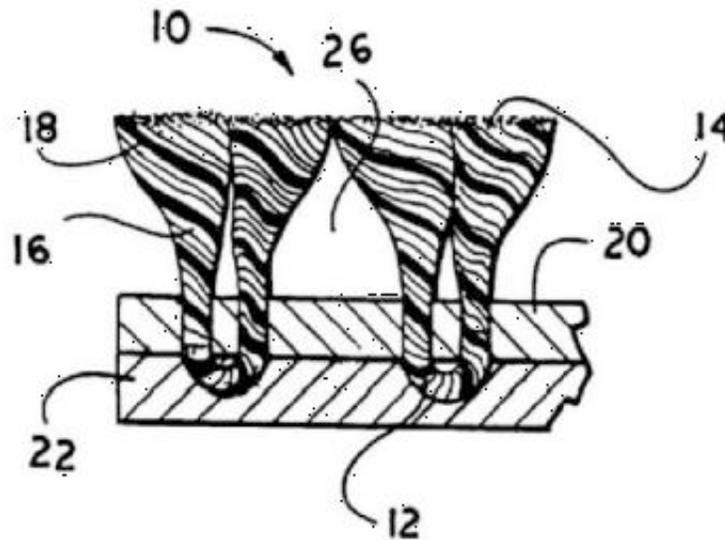
In addition, Mountville offers the testimony of Mr. Hart, who opines that Mountville's construction is consistent with how the term "plurality" is used in this industry. (Hart Decl. para. 8.) However, the Court is obligated to "discount any expert testimony 'that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.' " Phillips, 415 F.3d at 1318 (quoting Key Pharms., 161 F.3d at 716). And there are other reasons to discount Mr. Hart's testimony. Mr. Hart owns a one-third interest in Mountville, and therefore is interested in the outcome of this litigation. In addition, Mr. Hart's deposition testimony reveals that the term "plurality" is not one that is typically used in relation to floor mats (Hart dep. at 18-19, May 3, 2006), and that he had not heard anyone use the term in referring to track control mats outside the context of the instant lawsuit. (*Id.* at 20-21.) As such, his opinion on the meaning of "plurality" in the track control mat industry is not credible.

The Court finds no indication that "plurality" should mean anything other than two or more items. Thus, the term is construed to mean "at least two."

"tufts"

Kleen-Tex argues that no further words are necessary to construe this term. Mountville suggests the term should be construed to mean "any of the projections of yarns drawn through a fabric or making up a fabric so as to produce a surface of raised loops or cut pile."

The specification reveals that "carpets are manufactured generally by feeding yarn from spools through needles into a substrate. This process is known as 'tufting.' " '622 patent, col. 1, ll. 14-17. The patent further discusses "tufts" with regard to the preferred embodiment. It explains that "[a]fter the yarn 14 is twisted and heat treated, if desired, and twisted with another yarn, if desired, the yarn is wound on spools and fed into tufting needles of a tufting machine where the tufts 12 of the mat 10 are formed into the substrate 20" *Id.*, col. 5, ll. 27-31; *see also id.* at Fig. 1 (pictured).



The dictionary definition of "tuft" is consistent with the specification's disclosure and the Court's understanding of the term. In particular, the dictionary defines it as "any of the projections of yarns drawn through a fabric or making up a fabric so as to produce a surface of raised loops or cut pile." Merriam-Webster's Collegiate Dictionary 1346 (11th ed.2004).FN2 In view of these sources, and because the meaning of "tufts" is not "self-evident," the Court construes "tufts" as "any of the projections of yarn drawn through a substrate so as to provide a surface."

FN2. The Federal Circuit's decisions are not consistent regarding whether it is appropriate to look at extrinsic evidence contemporaneous with the filing date or the issue date of the patent to determine the meaning of the claims. *Compare* Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed.Cir.2002) ("Dictionaries, encyclopedias and treatises, publicly available at the time the patent is issued, are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art."), *with* Schering Corp. v. Amgen, Inc., 222 F.3d 1347, 1353 (Fed.Cir.2000) ("In sum, this court must determine what the term meant at the time the patentee filed the ... application."); *see also* Inverness Med. Switzerland GmbH v. Princeton Biomeditech Corp., 309 F.3d 1365, 1370 & n. 1 (Fed.Cir.2002) (looking to dictionary definition of claim term as of date the patents issued but observing inconsistency). In any event, the parties have not suggested, and the Court has no reason to believe, that the definition of "tufts" materially changed between the '622 patent's filing in 1996 and issuance in 2002.

"a plurality of tufts"

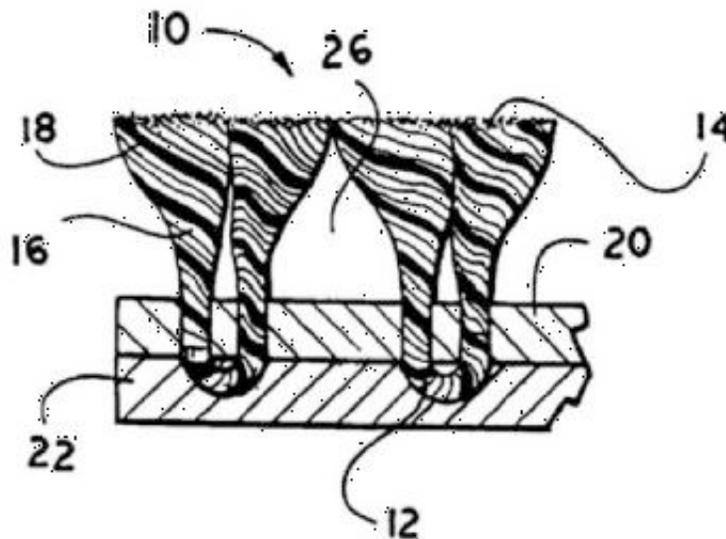
In view of the above constructions of "plurality" and "tufts," the Court construes "a plurality of tufts" as "at least two of any of the projections of yarn drawn through a substrate so as to provide a surface."

"the backing"

Kleen-Tex argues that no further words are necessary to construe this term and that "the backing" should simply be construed as "the backing." Mountville does not propose a construction for this term, arguing instead that "the backing" is vague and indefinite under 35 U.S.C. s. 112 because it has no antecedent basis in Claim 1.FN3

FN3. Mountville's argument goes to the validity, not the construction, of the claim, and is therefore unhelpful to the instant endeavor. As noted in the December 30 Order denying summary judgment, the Court will entertain issues of validity and infringement following claim construction. (Order at 8, Dec. 30, 2005.)

As noted above, as much as Kleen-Tex would like the Court to define "the backing" by reference to itself, the Court is obligated to construe the material terms in dispute. Because neither party has offered a proposed construction or argument therefor, the task is made substantially more difficult. Nevertheless, the specification provides guidance for construction of this term. For example, the specification provides: "Most track control mats are made with a backing that holds the tufts in place relative to the substrate. The backing is typically a plastic or rubber material that is melted or vulcanized and applied to the substrate. In this state, the backing bonds the tufts to the substrate." '622 patent, col. 2, ll. 10-14. In further summarizing the invention, the disclosure provides: "The mat includes a substrate for receiving the tufts. The tufts in the substrate are bonded to the backing." *Id.*, col. 3, ll. 65-67. Finally, the patent's explanation of a preferred embodiment is illustrative, in which it explains that "[t]he tufts 12 are secured to a substrate 20 by means of a backing 22." *Id.*, col. 4, 62-63; *see also id.* at Fig. 1 (pictured).



In view of these disclosures, the Court determines that a person with ordinary skill in the art, viewing the term in the context of the entire patent, would understand "the backing" to mean "a material applied to the substrate that is used to hold the tufts relative to the substrate," and the Court construes it as such.

"the mat is machine washable without substantial degradation of tufts"

Kleen-Tex argues this term should be construed to mean "a substantial amount of fibers do not pull out from the mat when the mat is machine washed." Mountville argues that this term should be construed as "subject to commercial washing without degradation of tufts" and argues that the modifier "substantial" is vague and indefinite under 35 U.S.C. s. 112.FN4

FN4. *See supra* note 3.

With regard to this term, the parties primarily dispute the portion relating to "substantial degradation of tufts." Mountville's position is that the term should be construed to exclude any degradation of tufts whatsoever, while Kleen-Tex argues for a construction which would exclude only a substantial degradation of tufts. As noted in the above-construction of "machine washable," the purpose of track control mats is to remove dirt and moisture from a person's shoes as he enters a building. '622 patent, col. 1, ll. 23-30. In order for these mats to be effective at removing large quantities of dirt and moisture, they "should be manufactured in a manner that will withstand continued exposure to washing and drying." *Id.*, col. 2, ll. 15-17. The specification notes that a disadvantage associated with prior art track control mats is their non-resilience to commercial washing. *See, e.g., id.*, col. 2, ll. 23-25 ("Many commercially available track control mats at present exhibit poor tuft lock and, as a result, are ineffective for reuse after washing."); *id.*, col. 2, ll. 61-65 ("[W]hen the mat [made according to U.S. Pat. No. 4,820,566] is used and washed, many of the coarse fibers become dislodged from the backing. This renders the mat less effective in dirt and moisture removal and storage after a short period of time.")

Thus, the patent expresses the need for "a washable track control mat that exhibits good tuft-lock so that the tufted fibers to not separate from the backing." *Id.*, col. 3, ll. 31-33. One of the objects of the invention is thus "to provide a washable track control mat made of varied denier fibers wherein the coarse, high denier fibers will not separate from the backing after use or when subjected to commercial washing and drying." *Id.*, col. 4, ll. 14-18; see also *id.*, col. 4, ll. 32-36. Defendant Mountville's position rests largely on these phrases-i.e., "do not separate," "will not separate"-and other seemingly definitive statements for its position that "machine washable without substantial degradation of tufts" must be construed to exclude any degradation of tufts whatsoever. For example, the patent also provides that the backing feature "enables the mat 10 to be subjected to commercial washing without degradation of tufts 12." *Id.*, col. 5, 58-60. Mountville also points to an amendment filed by Kleen-Tex during prosecution of the '622 patent, in which the applicants stated, in part:

The mat described in these independent claims as [sic] machine washable because the coarse denier fiber and fine denier fibers are twisted together and bonded to a substrate with vulcanized rubber. The combination of twisting these different yarns together and bonding them to a substrate with vulcanized rubber yields a machine washable track control mat because such a structure is durable and the fibers to not pull out of the backing and the vulcanize [sic] rubber.

Prosecution History at 89.

Mountville's reliance on these excerpts is misplaced. When they are read in context, it is apparent that the specification is not representing that the '622 invention can be machine washed with absolutely no loss of tufts or fibers. Instead, the specification and related prosecution history imply that a track control mat made in accordance with the teachings of the '622 patent is able to endure more washings than prior art track control mats with a corresponding decreased loss of fibers or tufts. That this is the correct understanding of

the specification is confirmed by the inventors' testing and comparison of the mat contemplated in the '622 patent with a mat constructed in accordance with the '566 patent and '333 patents.

According to the specification, in one test both mats were washed twenty times and compared:

The mat made in accordance with the ['622 patent] showed no significant loss of coarse or fine fiber. However, the mat made in accordance with the '566 and '333 patents showed significant loss of coarse fiber. This test demonstrates the capability of the present invention to achieve effective tuft-lock and maintain such tuft-lock after many washings.

Id., col. 6, ll. 3-9. In another test, not directly related to machine washing but illustrative of the contemplated meaning of "substantial degradation,"

[The mats] were bone dried and weighed, then soaked with water, hung and allowed to drip dry for five (5) minutes. Both sets [of mats] were then abraded for 2,500 cycles on a U.S. Testing Abrasion Tester. After being abraded, both sets were bone dried and weighed again. [The set of mats made in accordance with the '622 patent] showed a loss of .555 grams. [The set of mats made in accordance with the '566 and '333 patents] showed a loss of 2.094 grams.

'622 patent, col. 6, ll. 15-20. The specification concludes:

The significant fiber loss of the mats made in accordance with the '566 and '333 patents further demonstrates the effectiveness of the tuft lock achieved with the mats made pursuant to the present invention.

Id., col. 6, ll. 20-24. It would be nonsensical for the patent to assert (and claim) an invention that can withstand machine washing with absolutely no loss of carpet fibers, but then reveal a test in which the invention lost what the patentee considers a non-significant amount of fibers and praise such result.

Viewing the entire patent in context, it is clear that the patentee contemplated some fiber loss when the track control mat is washed, and claimed an invention that was "machine washable without substantial degradation of tufts." Thus, the Court construes "machine washable without substantial degradation of tufts" to mean "the mat is able to be washed by a machine without losing a substantial amount of fibers." The Court does not pass at this juncture on whether "substantial" degradation or fiber loss is vague or indefinite under 35 U.S.C. s. 112.

substantial degradation of tufts

In view of the above-discussion in connection with the construction of "machine washable without substantial degradation of tufts," the Court construes "substantial degradation of tufts" as "the loss of a substantial amount of fibers."

"each of the plurality of tufts"

Kleen-Tex posits that "each of the plurality of tufts" should be construed to mean "each of the at least two tufts." Mountville, on the other hand, argues that this term should be construed to mean "each and every tuft." The Court has construed "a plurality" of tufts" to mean "at least two tufts." But intrinsic evidence does not inform the Court's construction of how "each" affects the construction of "each of the plurality of tufts."

However, "each" appears to be one of those terms that would be readily understood in its ordinary, everyday sense, and the meaning of which is "self-evident." Thus, the Court declines to put a judicial gloss on it. "Each of the plurality of tufts" is construed to mean "each of the at least two tufts."

IV. Scheduling

Either party may move for summary judgment within thirty (30) days of entry of this Order.FN5 If Plaintiff elects to renew and/or augment its previously-filed motion for summary judgment, it is **DIRECTED** to refile the motion in its entirety. Other deadlines shall be calculated by reference to the Federal Rules of Civil Procedure and the Local Rules of this Court. *See, e.g.*, LR 7.1, NDGa. Each party who files a motion, response, or reply is **DIRECTED** to hand-file with the Court a courtesy copy of the document, including attachments, within five (5) days of electronic filing.

FN5. Local Patent Rule 6.7 provides for additional discovery following the Court's claim construction ruling. Although the Local Patent Rules are not directly applicable to this case due to its filing date, see Patent L.R. 1.3, the Court has previously ordered that the parties comply with deadlines similar to those found in the Local Patent Rules. (Order at 8-9, Dec. 30, 2005.) The Court notes that the parties engaged in extensive discovery prior to claim construction proceedings and that motions for summary judgment were filed. Thus, it appears that no further discovery is necessary in this case. However, the Court will consider a motion for additional discovery filed within ten (10) days of entry of this Order. If either party so moves, it is **DIRECTED** to provide a proposed discovery schedule and to advise the Court in detail of the nature and purpose of the discovery sought.

V. Conclusion

In view of the foregoing discussion, the Court construes the disputed claim terms as follows:

claim term	Kleen-Tex's construction	Mountville's construction	Court's construction
"machine washable" (in preamble)	not limiting	"subject to commercial washing without degradation of tufts"	not limiting
"coarse denier fiber"	"fiber that ranges in denier from 100 to 2,000 denier per filament"	"uncrimped fiber having a denier of 300-600 and used to increase the abrasiveness of a carpet"	"fiber that ranges in denier from 100 to 2,000 denier per filament"
"fine denier fiber"	"fiber that ranges in denier from 15 to 100 denier per filament"	"fiber having a denier of no more than 7 or 8"	"fiber that ranges in denier from 15 to 100 denier per filament"
"a yarn"	"a yarn"	"the result of twisting together at least two fibers"	"the result of twisting together at least two fibers"
"plurality"	"at least two"	"where a first type of tuft is present in an amount or number which is greater than a	"at least two"

		second but different type of tuft which is present"	
"tufts"	"tufts"	"any of the projections of yarns drawn through a fabric or making up a fabric so as to produce a surface of raised loops or cut pile"	"any of the projections of yarn drawn through a substrate so as to provide a surface"
"a plurality of tufts"	"at least two tufts"	"in a mat having different types of tufts, a first type of tuft made from a yarn created by twisting together at least one coarse denier fiber and at least one fine denier fiber is present in an amount or number which is greater than a second but different type of tuft which is present"	"at least two of any of the projections of yarn drawn through a substrate so as to provide a surface"
"the backing"	"the backing"	_____	"a material applied to the substrate that is used to hold the tufts relative to the substrate"
"the mat is machine washable without substantial degradation of tufts"	"a substantial amount of fibers do not pull out from the mat when the mat is machine washed"	"subject to commercial washing without degradation of tufts"	"the mat is able to be washed by a machine without losing a substantial amount of fibers"
"substantial degradation of tufts"	"a substantial amount of fibers pulling out from the mat"	_____	"the loss of a substantial amount of fibers"
"each of the plurality of tufts"	"each of the at least two tufts"	"each and every tuft"	"each of the at least two tufts"-or-"each of the at least two of any of the projections of yarn drawn through a substrate so as to provide a surface"

SO ORDERED, this 27th day of October, 2006.

N.D.Ga.,2006.

Kleen-Tex Industries, Inc. v. Mountville Mills, Inc.

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