

NOT FOR PUBLICATION

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

T.F.H. PUBLICATIONS, INC., :

Plaintiff, :

v. :

Civil Action No. 08-4805 (FLW)

OPINION

DOSKOCIL MANUFACTURING
COMPANY, INC., :

Defendant. :

WOLFSON, United States District Judge:

Plaintiff, T.F.H. Publications Inc., (“Plaintiff” or “TFH”) brings this action alleging infringement of U.S. Patent No. 6,159,516 (the “ ‘516 patent”) by Defendant Dorskocil Manufacturing Company, Inc. (“Defendant” or “Dorskocil”). The ‘516 patent describes, in relevant part, a process for molding starch and water into a pet chew toy. Central to the ‘516 patent is its description of a “vented barrel extruder” and key to the instant dispute is whether Defendant utilizes such a device in its production and manufacture of a line of dog bones called Booda Bones®.

Presently before the Court is the parties’ request that the Court construe the following terms in dispute within the claims of the ‘516 patent: (1) “vented barrel extruder”; (2) “the water content of said beads upon discharge from said extruder”; (3) “by weight”; (4) “attractant”; (5) “about”; (6) “said extruded mixture”; (7) “injection molding and cooling”; (8) “vented barrel injection molding machine”; (9) “vented mold”; and (10) “hopper feed section.” A Markman

hearing was held on January 9, 2012. The Court has also considered the written submissions of the parties, along with the certifications and testimony of Plaintiff's expert, Dr. Robert Malloy ("Dr. Malloy"), the inventor, Glen S. Axelrod ("Axelrod"), and Defendant's expert, Greg Kuppler ("Kuppler").¹ The Court shall construe the terms in the context of the asserted claims as set forth herein.

I. OVERVIEW OF THE '516 PATENT

The '516 patent, entitled "Method of Molding Edible Starch," claims a process for forming starch into a molded article for use as an edible animal product or a pet chew toy. Specifically, and in relevant part, the '516 patent calls for the combination of starch and water in one of several ratios, and the introduction of this mixture into a vented barrel extruder where the temperature of the mixture is raised and the water content reduced through venting. After the water content is reduced, the mixture is extruded in the form of beads which are molded into a desired shape such as a dog bone or other pet chew toy.

II. GENERAL LEGAL CLAIM CONSTRUCTION STANDARD

Claims define the scope of the inventor's right to exclude. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed.Cir.2005). Claim construction is to determine the correct claim scope, a determination exclusively for the Court as a matter of law. Markman v. Westview Instruments,

¹During the Markman hearing, the Court limited the testimony of Axelrod and Kuppler, as set forth in the record.

Inc., 52 F.3d 967, 978–79 (Fed.Cir.1995) (en banc), aff'd, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Indeed, courts can only interpret claims, and “can neither broaden nor narrow claims to give the patentee something different than what it has set forth” in the specification. E.I. Du Pont de Nemours v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed.Cir.1988).

This interpretive analysis begins with the language of the claims, which is to be read and understood as it would be by a person of ordinary skill in the art. Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1372 (Fed.Cir.2001); see also Markman, 52 F.3d at 986 (“The focus [in construing disputed terms in claim language] is on the objective test of what one of ordinary skill in the art at the time of invention would have understood the terms to mean”); see also Phillips, 415 F.3d at 1312–13. In construing the claims, the court may examine both intrinsic evidence (e.g., the patent, its claims, the specification and prosecution history) and extrinsic evidence (e.g., expert reports, testimony and anything else). Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed.Cir.1999). However, claims may not be construed with reference to the accused device, which means that the court may not construe a claim to fit the dimensions of the accused device, and thereby prejudice the claim construction by “excluding or including specific features of the accused device.” Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1330 (Fed.Cir.2006). However, the knowledge of the accused device before or during claim construction is not only permissible, but also necessary to claim construction because it “supplies the parameters and scope of the infringement analysis.” Id. at 1330–31; Lava Trading Inc. v. Sonic Trading Mgmt., 445 F.3d 1348, 1350 (Fed.Cir.2006).

In interpreting the disputed terms, it is well settled that courts should look first to the intrinsic

evidence. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1356, 1362 (Fed.Cir.1996). Generally, words in patent claims are given their ordinary meaning as understood by one of ordinary skill in the art at the priority date of the patent application. Dow Chem., 257 F.3d at 1372; K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1362 (Fed.Cir.1999). The claims must be construed objectively in the context of both the particular claim and the entire patent because “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” and claim terms are normally used consistently throughout the patent. Phillips, 415 F.3d at 1313–14.

Moreover, courts are instructed to look to the specification, which is a written description of the invention. “[C]laims ‘must be read in view of the specification, of which they are a part.’ ” Phillips, 415 F.3d at 1315 (quoting Markman, 52 F.3d at 979). Indeed, the specification is perhaps “the single best guide to the meaning of a claim term” due to its statutory requirements of being in “full, clear, concise, and exact terms.” Phillips, 415 F.3d at 1316; see 35 U.S.C. § 112. “The specification acts as a dictionary when it expressly” or implicitly defines terms used in the claims. Markman, 52 F.3d at 979. Thus, it effectively limits the scope of the claim. On Demand Mach. Corp. v. Ingram Industries, Inc., 442 F.3d.1331, 1340 (Fed.Cir.2006). Due to its nature, “the specification ‘is always highly relevant to the claim construction analysis. Usually it is dispositive....’ ” Id. (quoting Vitronics Corp., 90 F.3d at 1582).

Extrinsic evidence includes all evidence external to the patent and prosecution history, i.e., expert and inventor testimonies, dictionaries, and learned treatises. Markman, 52 F.3d at 980. It is considered only where the intrinsic evidence does not provide a sufficient description to resolve ambiguities in the scope of the claim. See Vitronics, 90 F.3d at 1583; Johnson Worldwide Associations v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999). However, the

Federal Circuit cautioned, in Phillips, that dictionary definitions should not be used to interpret patent claim terms in a manner that is divorced from the context and description of the invention in the specification. Phillips, 415 F.3d at 1321. The Phillips Court reasoned that because of the nature of the patent claims, the dictionary definitions, as extrinsic evidence, are usually less reliable than the patent documents themselves in establishing the ordinary meaning of a claim term. Phillips, 415 F.3d at 1314; Toro Co. v. White Consol. Indus., 199 F.3d 1295, 1299 (Fed.Cir.1999). Ultimately, extrinsic evidence cannot be used to vary or contradict claim terms when their meanings are discernible from intrinsic evidence. C.R. Bird, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed.Cir.2004).

III. DISCUSSION

A. Vented Barrel Extruder

TFH's Proposed Construction	Dorskocil's Proposed Construction
an extruder with a barrel which provides venting of volatiles (water) from a resin (starch) to lower a water level	a barrel extruder having at least one opening along the barrel, not including the entry or exit of the extruder, such that gaseous material or vapor escapes through the opening

The principal claim construction dispute centers on the question of whether the term “vented barrel extruder” as used in Claims 1, 14, 20, 23, 29 and 33 requires an opening or vent along the barrel other than the entry or exit of the extruder or whether the entry or exit of the extruder can also function as an opening or vent. In that regard, TFH argues that the claim language only “calls for an extruder with a barrel that allows for venting” and does not require that the extruder have an additional vent or opening along the barrel other than the entry or exit of the extruder.

Pl's Br. at 9. In support of this argument, Plaintiff points to the patent specification which provides, "in the context of the present invention, where the water level charged in the extruder is preferably lowered during the course of extrusion, a vented barrel extruder is employed, wherein such venting lowers the water level to a desired level." Id. Thus, Plaintiff contends that nothing in the specification should be read to limit the definition of "vented barrel extruder" beyond that of an extruder with a barrel that vents. Further, Plaintiff contends that the patent prosecution history supports its proposed construction of "vented barrel extruder." Specifically, Plaintiff argues that although it filed an amendment that limited the term "extruder" to a "vented barrel extruder," this change was not central to the amendment; rather, Plaintiff argues, the point of the amendment was to advise the examiner that prior art taught a one-step injection molding process while the '516 patent taught a two-step process of extrusion and injection molding.

In addition to the intrinsic evidence, Plaintiff contends that its definition is supported by extrinsic evidence, including the testimony of its expert, Dr. Malloy. Specifically, in his report, Dr. Malloy concluded that a barrel extruder that allows venting at the feed throat, i.e., the entry, and that does not have an additional opening along the barrel, can still be a "vented barrel extruder" because it allows moisture to vent during the extrusion process. Pl's Br. at 14. Indeed, at the Markman hearing, Dr. Malloy testified that any extruder that is capable of being starve fed can become a vented barrel extruder; in other words, Malloy testified that it is the process that determines whether an extruder is a vented barrel extruder and not the placement of openings along the barrel. Tr. 96:21-24; 99:16-18.

In contrast, Defendant argues that the term "vented barrel extruder" requires an extruder with a barrel that contains vents in addition to the entry and exit points. Specifically, Defendant

argues that a “vented barrel extruder” is “a specific type of device known to one of ordinary skill in the art of extrusion or injection molding.” Def’s Br. at 13. Moreover, Defendant argues that TFH’s proposed definition is too broad in light of the patent specification which was limited, during the amendment process, from a simple “extruder” to a “vented barrel extruder.” Indeed, Defendant notes that Plaintiff did not choose to use a generalized description in the patent but utilized the term “vented barrel extruder,” a specific machine that is well known in the art of injection molding. *Id.* at 15. Finally, Defendant argues that contrary to Plaintiff’s argument, the prosecution history supports its definition of “vented barrel extruder” since in order to obtain patentability, Plaintiff filed an amendment to the patent application that limited the use of an “extruder” to the use of a specific type of extruder, a “vented barrel extruder.”

In addition, Defendant argues that Dr. Malloy’s testimony is improper, unnecessary and does not support Plaintiff’s construction. Specifically, Defendant argues that because the intrinsic evidence supports its construction, the Court need not consider any extrinsic evidence including the testimony of Dr. Malloy. However, Defendant contends that to the extent the Court considers Dr. Malloy’s testimony, his testimony contradicts the language of the claim and the patent prosecution history.

Initially, the Court notes that Plaintiff’s proposed construction of “vented barrel extruder” is overbroad. It is axiomatic that an extruder, a device into which things are fed and from which things are extruded, has an entry and an exit. Thus, a definition of “vented barrel extruder” that does not require an opening or vent along the barrel, in addition to the exit or entry, would permit any extruder to become a “vented barrel extruder” – a construction that is contrary to the express language of the ‘516 patent and the other intrinsic evidence. In that regard, the Court notes that

the express language of the term “vented barrel extruder” establishes that the adjective “vented” modifies the verb “barrel”; thus, it is clear from the language that the venting must occur along the barrel. As such, any argument by Plaintiff that the venting may occur along the hopper feed throat, or elsewhere, makes no sense. Moreover, it is clear from the plain language that a “vented barrel extruder” is a subset of a larger group of machines, either “extruders” or “barrel extruders.” Thus, the term “vented” clearly limits the patent to the use of a particular subgroup of devices.

In addition, the Court notes that Plaintiff did not, as Defendant suggests, choose to utilize a generalized description in the patent such as “any barrel extruder which provides some venting.” Def’s Br. at 15. Instead, the patent refers to a specific machine, i.e., a “vented barrel extruder.” Thus, Plaintiff limited the invention to the use of that specific group of devices.

Further, the patent prosecution history makes plain that although Plaintiff used the term “extruder” in its initial patent application, this application was rejected by the USPTO on February 2, 2000. Thereafter, on April 14, 2000, the inventors filed Amendment A which, in relevant part, inserted the words “vented barrel” before the word “extruder” in each independent claim (1, 15, 21, 24, 30 and 34). Thereafter, the USPTO granted the ‘516 patent. Thus, the prosecution history evinces Plaintiffs’ use of, and reliance on, the term “vented barrel” to distinguish this invention from prior art in order to obtain patentability.

Because the Court finds that the intrinsic evidence supports Defendant’s construction, the Court need not consider the extrinsic evidence. However, to the extent the Court were to consider the testimony of Dr. Malloy, the Court finds that his testimony confirms the overbroad

nature of Plaintiff’s construction. Indeed, as noted above, during the Markman hearing, Dr. Malloy testified that any extruder that can be starve fed can be turned into a vented barrel extruder; in other words, Malloy testified that it is the process that determines whether an extruder is a vented barrel extruder and not the placement of openings along the barrel. Dep. 96:21-24; 99:16-18. However, as discussed above, the language of the patent and the prosecution history make clear that the patent requires the use of a particular device, that is not dependent on the process occurring therein. In that regard, the Court notes that Dr. Malloy himself testified that a “conventional” or “traditional vented barrel extruder” has “one or more vent ports . . . located somewhere along the length of the barrel between the feed throat . . . [and] the end of the barrel. . .” Tr. 31:1-7; see also Tr. 71:8-19. Thus, the Court finds that Dr. Malloy’s attempt to define the term “vented barrel extruder” by the process occurring within the extruder is not supported by either the intrinsic or extrinsic evidence.

For all these reasons, the Court rejects Plaintiff’s construction of the term “vented barrel extruder” and will adopt Defendant’s construction of the term which provides, “a barrel extruder having at least one opening along the barrel, not including the entry or exit of the extruder, such that gaseous material or vapor escapes through that opening.”

B. The water content of said beads upon discharge from said extruder

TFH’s Proposed Construction	Dorskocil’s Proposed Construction
The relative weight of the water in the bead to the starch in the bead	Indefinite: The phrase “the water content” renders the phrase indefinite. “Said beads” is capable of being defined as indicated in 4.3(a).

Next, the parties dispute whether the phrase “the water content of said beads upon discharge from said extruder” is capable of definition. In that regard, Plaintiff argues that the meaning of the term is “self-evident and self-defining. Specifically, the claim language refers to a specific water content ratio of the water to starch prior to the mixture’s introduction to the extruder.” Pl’s Br. at 15. In response, Defendant argues that the term is ambiguous because there are two potential ways to define water content, i.e., water content relative to the entire mixture or water content relative to the starch. Def’s Br. at 27. The Court does not agree.

Initially, the Court notes that within the context of the patent, the term “the water content of said beads upon discharge from said extruder” is not ambiguous. For example, Claim 1 recites the following: “(a) combining starch and water to form a mixture....(b) introducing and heating said mixture. . .wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”² Thus, the Court finds that the express language of the patent makes plain that “the water content of said beads” refers to the percentage of water in the beads relative to the starch in the bead since, contrary to Defendant’s assertion, the relevant portion of the patent claim does not reference the addition of any additional ingredients. For these reasons, the Court will adopt TFH’s proposed construction of the term.

C. By weight

²The Court notes that each of the disputed claims in which this term appears – Claims 14, 20, 23 and 33 – uses identical language.

TFH's Proposed Construction	Dorskocil's Proposed Construction
A ratio of the weight of water to the weight of starch	Indefinite: The specification supports two interpretations and the claims are ambiguous as they fail to distinguish whether "by weight" is with respect to just starch, the mixture, or the product

Plaintiff argues that the term "by weight" is self-evident and that the Court should construe the term "by weight" to mean the ratio of the weight of water to the weight of starch in the starch and water mixture. In response, Defendant argues that the term "by weight" has different meanings depending on where it is used in the claims. For example, Defendant contends that "Claims 1(a), 14(a), 20(a), 23(a) and 33(a) determine water content 'with respect to starch' . . . But claims 1(c), 8,9,10,11,12,14(c), 20(c), 23(c) and 33(c) determine water content with respect to the finished molded article, "molded article is at or below X% by weight". . . finally, [sic] claims 5,6,7 and 12. . . provide no guidance at all." Thus, Defendant argues that "a person of ordinary skill would have no way to determine which meaning the inventor intended." The Court does not agree.

Initially, the Court notes that the term "by weight" as used in claims 1(a), 14(a), 20(a), 23(a) and 33(a), clearly refers to the weight of the water to the weight of the starch. For example, Claim 1(a) recites, "[a] process for forming starch into a molded article using melt processing techniques which process (a) comprises combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40% by weight with respect to that of said starch." (emphasis added). Thus, it is clear from the context of the claim that "by weight" refers to the weight of the water relative to that of starch. Similarly, claims 5,6, and 7 each refer to Claim 1(a); thus, it is clear that the term, as used in those claims, similarly refers to the weight of

water relative to that of starch.

Next, with respect to the use of the term “by weight” in claims 1(c), 8, 9, 10, 11, 12, 14(c), 20(c), 23(c) and 33(c), each of these claims define “by weight” to mean the relationship between the water content and the finished molded product. For example, 1(c) recites, “cooling to form said molded article wherein the water content is at or below about 20% by weight.” Similarly, for example, claim 8 recites, “[t]he process of claim 1, wherein the water content of said molded article is about 5-20% by weight.” Thus, as in claim 1(c), “by weight” refers to the relationship between the water content and the finished molded product. Thus, the Court does not agree with Defendant that this term is indefinite since the definition of the term depends on the context within which it is used in the patent. However, the Court also declines to accept Plaintiff’s meaning since Plaintiff’s proposed construction – ratio of the weight of water to the weight of starch – contradicts the plain meaning of the term as used in some of the claims in the patent, i.e., 1(c), 8,9,10,11,12,14(c), 20(c), 23(c) and 33(c). As a result, the Court will not adopt either of the parties’ proposed constructions and will, instead, construe the term “by weight” according to its plain language and in the context of the claim in which it is used. Thus, in claims 1(a), 14(a), 20(a), 23(a) and 33(a), the Court will construe the term “by weight” to mean “a ratio of the weight of water to the weight of starch,” while in claims 1(c), 8,9,10,11,12,14(c), 20(c), 23(c) and 33(c), the Court will construe the term “by weight” to mean “a ratio of the weight of water to the weight of the finished molded article.”

D. Attractant

TFH's Proposed Construction	Dorskocil's Proposed Construction
substance that attracts animals that may include an animal-based derivative	substance that attracts animals that includes an animal-based derivative

Next, Defendant argues that the term “attractant” as used in the ‘516 Patent should be limited to mean an attractant that includes an animal-based derivative. In support of this argument, Defendant points to the patent specification which provides, in relevant part, “it has been found desirable to add attractants such as chicken powder, liver powder, ham, turkey, beef and/or fish in an amount...” ‘516 patent, 8:60-61. Thus, Defendant argues that because the patentee chose to define “attractant” by listing examples of attractants that are all animal-based, the specification is limited to that subset of attractants. In response, Plaintiff contends that the Court should construe the term “attractant” to mean a substance that attracts animals that may include an animal-based derivative. Specifically, Plaintiff contends that the limitation suggested by Defendant, i.e., requiring an animal-based derivative in the attractant, does not appear in the claim language and that the specification only includes a preferred embodiment. The Court agrees. Nothing in the relevant claims requires a particular type of attractant. For example, Claim 13 recites, “[t]he process of claim 1, wherein during step (c), 1-5% of an attractant . . . are added to said extruded mixture.” Moreover, although the specification enumerates a number of animal-based products, the patentee’s use of the words “such as” suggests the patentee listed the animal-based products only as examples of possible attractants. Thus, the Court will adopt Plaintiff’s proposed construction of “attractant.”

E. About

TFH's Proposed Construction	Dorskocil's Proposed Construction
is a reference to a percentage of water that appears, e.g., in claim 1 (“water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch”). The specification makes clear that one of ordinary skill in the art would understand that such measurement may be made to plus or minus 0.1%	Indefinite: This term is indefinite based on <u>WL Gore & Associates, Inc. v. Garlock, Inc.</u> , 721 F.2d 1540 (Fed. Cir. 1981) and <u>Amgen, Inc. v. Chugai Pharm. Co.</u> , 927 F.2d 1200 (Fed. Cir. 1991), because there is nothing in the specification, prosecution history, or prior art to indicate what range is covered by “about”

Plaintiff argues that the Court should construe the term “about” as used in the claims of the ‘516 patent to mean plus or minus 0.1%. In support of this argument, Plaintiff points to the specification which contains a description of a particularly preferred embodiment of the invention, specifically, “the water level of the starch/water mixture entering the extruder is at about 31.2%, 31.1%, 30.2%, 22.5% and 15.2% as shown in Examples I-V in the accompanying Tables 1-6.” ‘516 patent 4:54-57. Moreover, Plaintiff notes that when comparing the preferred embodiment as described above to the accompanying tables, in each instance, the moisture content in the Table example is within plus or minus .1% of the moisture content set forth in the preferred embodiment. Thus, Plaintiff contends, that “one of ordinary skill in the art would understand that the claim term ‘about’ . . . means that such measurement may be made to plus or minus 0.1% of the value given.” Pl’s Br. at 21. In response, Defendant argues that the use of the term “about” is indefinite and that the claims do not provide any guidance in the specification or prosecution history. The Court does not agree.

Initially, the Court notes that as discussed above, claims “must be read in view of the specification, of which they are a part.” Markman, 52 F.3d at 979. Indeed, the specification is “the single best guide to the meaning of a claim term” due to the statutory requirements of being

in “full, clear, concise, and exact terms.” Phillips, 415 F.3d at 1316. Applied here, contrary to Defendant’s assertion that the patent lacks any guidance, it is clear that the specification demonstrates that the term “about” as used in the ‘516 patent should be read in reference to a percentage of water measured to plus or minus 0.1%. Specifically, as Plaintiff argues, the description of the Tables in the preferred embodiment rounds the numbers up or down by 0.1%; thus, the Court agrees with Plaintiff that one of ordinary skill in the art would understand that the measurements may be made to plus or minus 0.1%.

Moreover, to the extent that Defendant argues that Plaintiff has proffered inconsistent evidence to support its proposed construction since 22.63% is rounded to 22.5%, i.e., 0.13% which is .03% more than the definition proposed by Plaintiff, Defendant is wrong. Indeed, during the Markman hearing, Plaintiff elicited testimony from Mr. Axelrod that the above calculation in the preferred embodiment was a typographical error and should, instead, read 22.6, not 22.5%, a percentage that would fall within Plaintiff’s proposed construction of the term “about.” Tr. 144:9-12. Indeed, this is an inherently logical explanation, since it is a general mathematical principal that a number should be rounded to its closest decimal, i.e., 22.63 should be rounded to 22.6, not any other number. For these reasons, the Court declines to find that the term about is indefinite as used in the ‘516 patent and will, instead, adopt the definition of the term “about” proposed by Plaintiff.

F. said extruded mixture

TFH’s Proposed Construction	Doskocil’s Proposed Construction
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a mixture prepared by an extruder	Indefinite: This term has no antecedent basis and no meaning is supported by the specification. The mixture is extruded to form beads. There is no “extruded mixture.”
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Next, Defendant argues that the Court should find that the term “extruded mixture” is indefinite because “it lacks antecedent basis and there is no intrinsic evidence which helps define it, nor is there an understood meaning of ‘extruded mixture’ in the art.” Def’s Br. at 35. Specifically, Defendant argues that it is impossible to tell when, in the process, the “extruded mixture” would exist, thus, the Court should find this term indefinite. In response, Plaintiff contends that each of the relevant claims explicitly refers to the extruded mixture at a particular stage of the process and, therefore, that the patent is not ambiguous. The Court agrees.

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”). It is well-established that a person of ordinary skill in the art reads the claim terms in the context of the particular claim, as well as in the context of the entire patent. Phillips, 415 F.3d at 1313. Indeed, as the Phillips court recognized, “the context in which a term is used in the asserted claim can be highly instructive . . . [and] [d]ifferences among claims can also be a useful guide in understanding the meaning of particular claim terms.” Id. at 1314.

Applied here, the Court notes that the parties dispute the definition of this term as set forth in Claims 13, 22, 24, 28, 32, 34 and 35. In claim 13, the patent provides, “[t]he process of claim 1, wherein during step (c), 1-5% of an attractant and .0-5% of a humectant are added to said extruded mixture.” Thus, with respect to this claim, it is clear that the term “said extruded

mixture” refers to the mixture that exists at step (c) of claim 1. In addition, the Court notes that claims 22, 28 and 35 similarly refer to step (c) of a particular claim. Thus, there is no ambiguity in the use of the term “said extruded mixture” in those claims since the context of each claim renders the meaning of the disputed term clear and unmistakably references the particular stage of the process at which the “extruded mixture” exists.

Moreover, the Court notes that with respect to the alleged indefiniteness of the term “said extruded mixture” as used in claims 24 and 34, the Court notes that, as with the aforementioned claims, both claims 24 and 34 refer to step (b) of a particular claim. For example, Claim 24 provides, “[t] process of claim 23, further comprising the step of introducing the extruded mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder.” Thus, “said extruded mixture” exists after extrusion from the extruder and before introduction into the injection molding machine.

Finally, with respect to claim 32, the term “said extruded mixture” is used as follows: “[t] he process of claim 29 wherein during said injection molding 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.” Thus, unlike the aforementioned use of the term, claim 32 does not refer to a particular step of the process; however, a reading of claim 29 makes plain that “said extruded mixture” refers to the mixture that exists after extrusion from the barrel extruder but prior to or during the introduction of the mixture into the injection molding machine. For these reasons, the Court does not find the term “said extruded mixture” to be indefinite and will, instead, adopt Plaintiff’s definition of “said extruded mixture.”

G. injection molding and cooling

TFH's Proposed Construction	Dorskocil's Proposed Construction
injection molding a resin (starch) and cooling to provide a molded article	The process by which the molded article is formed after exiting the vented barrel extruder, that includes an injection molding machine whose barrel first cools and then subsequently heats the beads prior to their injection in the mold cavity

Next, the parties dispute the definition of the term “injection molding and cooling” as used in claims 1, 14, 20, 23, 29 and 33. Specifically, Plaintiff argues that the term “speak[s] only to the process of injection molding and cooling and do[es] not describe any limitations concerning heating or the necessary sequence in which the molding and cooling is to occur.” Pl’s Br. at 25. Thus, Plaintiff argues that the term is not ambiguous and the Court need not consider the specification in construing the term. Moreover, Plaintiff contends that the doctrine of claim differentiation prohibits Defendant’s proposed construction. In contrast, Defendant argues that the invention requires that the mixture first be cooled and then heated in the injection molding machine. Specifically, Defendant contends that the because the claims themselves do not provide any guidance in the precise injection molding technique utilized in the invention, the Court must turn to the specification to construe the claim.

As discussed above, in interpreting claim terms, courts are instructed to look to the specification, which is a written description of the invention. “[C]laims ‘must be read in view of the specification, of which they are a part.’” Phillips, 415 F.3d at 1315 (quoting Markman, 52 F.3d at 979). Specification is “the single best guide to the meaning of a claim term” due to its

statutory requirements of being in “full, clear, concise and exact terms.” Phillips, 415 F.3d at 1315, 1316. Indeed, as the Phillips court recognized, “our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs . . . In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as dispositive.” Id. at 1316 (citations omitted).

In the instant matter, Claim 1 provides, in relevant part, “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article.” ‘516 patent claim 1(c)(emphasis added). Moreover, the specification notes that

it has been uniquely found in accordance with the present invention that it is important to actually cool the initial zone or zones of the injection molding machine proximate the hopper feed section to thereby significantly improve the quality of the injection molded parts produced herein. This is, of course, contrary to conventional injection molding practices, wherein uniform heating above the resin T_m is generally applied to all zones of the injection molding apparatus. . . Accordingly, unique to the invention herein, it has been appreciated that such over-heating and burning can be regulated by an injection molding heating zone profile that actually cools the barrel of the injection molding machine, thereby minimize [sic] the ability of the starch to thermally degrade.

‘516 patent 8:9-17,49-54 (emphasis added). Initially, the Court notes that the specification refers to “the present invention” in contrast to “conventional injection molding practices.” As the Federal Circuit recognized in Trading Tech. Int’l, Inc. v. eSpeed, Inc., 595 F.3d 1340, 1353-54 (Fed. Cir. 2010), an inventor’s use of the term “present invention” evinces an inventor’s intent to limit the invention. Applied here, the patentee’s use of the word “present invention”

demonstrates the patentee's intent to limit the '516 patent to a device that requires that the material be cooled first in the injection molding machine. Moreover, the Court notes that the specification refers to the invention as "unique" and provides that the over-heating that occurs in traditional conventional injection molding practice can be "regulated" by "cooling" the barrels of the injection molding machine." Id. Thus, the Court finds that the specification does limit the scope of Plaintiff's invention.

Moreover, to the extent that Plaintiff argues that the doctrine of claim differentiation mandates a different result, the Court does not agree. Specifically, Plaintiff argues that in light of Defendant's proposed construction, dependent claim 19 "would be rendered surplusage . . . [s]tated differently, if defendant is correct, and the phrase 'injection molding and cooling to form the molded article' necessarily means that the cooling must occur in the injection molding machine itself, then dependent claim 19 serves no purpose, since it would teach a redundant step of cooling the machine." In that regard, the Court notes that claim 19 simply provides "[t]he process of claim 14 wherein said cooling to form said molded product takes place in a mold cooled to about 35-65°F." Thus, contrary to Plaintiff's suggestion, claim 19 would not be rendered superfluous because it provides a further limitation to the independent claim regarding the specific temperature as well as the stage of the process in which cooling to that temperature is to occur.

For these reasons, the Court finds that the specification in the '516 patent limits the construction of the term "injection molding and cooling" and, as a result, the Court will adopt Defendant's construction of the term.

H. vented barrel injection molding machine

TFH's Proposed Construction	Doskocil's Proposed Construction
an injection molding machine with a barrel providing venting	a barrel injection molding machine having at least one opening along or on the barrel, not including the entry or exit of the injection molding machine, such that gaseous material or vapor escapes through the opening(s).

Next, the parties dispute the term “vented barrel injection molding machine” as used in Claim 2. Specifically, Plaintiff argues that “[f]or the same reasons TFH has detailed with respect to the claim term ‘vented barrel extruder,’ Doskocil’s limiting definition is baseless and should be rejected.” Pl’s Br. at 27. In response, Defendant argues that largely for the same reasons it requested that the Court construe “vented barrel extruder” to require an additional opening along the barrel, not including the entry or exit, the Court should similarly construe the term “vented barrel injection molding machine” to require an additional opening along the barrel not including the entry or exit of the injection molding machine. The Court agrees. For the reasons set forth in section IIIA, the Court will adopt Defendant’s construction of the term “vented barrel injection molding machine.”

I. vented mold

TFH's Proposed Construction	Doskocil's Proposed Construction
a mold that provides venting to allow volatiles (water) to escape	A mold that contains opening(s) such that gaseous material or vapor escapes through the opening(s)

Next, the parties dispute the definition of the term “vented mold” as used in Claim 3.

Specifically, claim 3 provides, “[t]he process of claim 1, wherein the injection molding machine contains a vented mold.” In that regard, Defendant argues that the Court should construe the term to mean a specific object that has openings that provide venting. Def’s Br. at 15. Plaintiff, on the other hand, argues that the Court should not construe the term with that specific limitation; in support of this argument, Plaintiff contends that the relevant specification only refers to a reduction in moisture level during the injection molding step and does not require venting through specific openings as Defendant suggests. The Court does not agree.

Initially, the Court notes that as with the construction of the term “vented barrel extruder,” the patent refers to a specific object, “a vented mold.” Indeed, rather than rely upon a generalized description, such as a mold that provides venting, Plaintiff chose to refer to a specific object and, as a result, Plaintiff is limited to the use of this device. Moreover, although Plaintiff is correct that the specification refers only to a reduction in moisture level during the injection molding step, claim 3 itself provides a further limitation that requires the reduction of moisture to occur in a vented mold. Thus, Plaintiff’s reliance on the specification is inapposite. Finally, the Court notes that the plain language of the term “vented mold” necessitates a construction wherein the term “vented” modifies “mold”; in light of the Court’s construction of the terms “vented barrel extruder” and “vented barrel injection molding machine,” the Court will adopt Defendant’s construction of the term “vented mold” which requires a mold with openings that provide, specifically, for venting and not for any other purpose.

J. hopper feed section

TFH's Proposed Construction	Doskocil's Proposed Construction
an opening in an extruder or injection molding machine where resin (starch) and extruded beads, respectively, may be introduced and/or where venting may occur	A device that facilitates the entry of material, i.e., feed, into the barrel of an injection molding machine.

Finally, the parties dispute the term “hopper feed section” as used in claims 14, 20, 23, and 29. Specifically, and in relevant part, Plaintiff argues that the Court should construe the definition of “hopper feed section” to mean an object that permits venting. The Court does not agree. The term “hopper feed section” makes no reference whatsoever to venting or to the escape of any material; instead, the term itself implies that the object is used to “feed,” i.e., to facilitate the entry of material into another object. Moreover, Plaintiff has provided no intrinsic or extrinsic evidence that would require this Court to construe the term “hopper feed section” with regards to venting. For these reasons, the Court will adopt Defendant’s construction of the term “hopper feed section.”

IV. CONCLUSION

For the foregoing reasons, the following chart summarizes the Court’s constructions of the disputed terms:

Disputed Term	TFH's Proposed Construction	Doskocil's Proposed Construction	Court's Determination
“vented barrel extruder”	an extruder with a barrel which provides venting of volatiles(water) from a resin (starch) to lower a	a barrel extruder having at least one opening along the barrel, not including the entry or exit of	a barrel extruder having at least one opening along the barrel, not including the entry or exit of

	water level	the extruder, such that gaseous material or vapor escapes through that opening	the extruder, such that gaseous material or vapor escapes through that opening.
“the water content of said beads upon discharge from said extruder”	the relative weight of the water in the bead to the starch in the bead	Indefinite	the relative weight of the water in the bead to the starch in the bead
“by weight”	a ration of the weight of water to the weight of starch	Indefinite	The Court will construe the term “by weight” as follows: in claims 1(a), 14(a), 20(a), 23(a) and 33(a), “by weight” means “a ratio of the weight of water to the weight of starch.” In claims 1(c), 8,9,10,11,12,14(c), 20(c), 23(c) and 33(c), the Court will construe the term “by weight” to mean “a ratio of the weight of water to the weight of the finished molded article.”
“attractant”	substance that attracts animals that may include an animal-based derivative	substance that attracts animals that includes an animal-based derivative	substance that attracts animals that may include an animal-based derivative
“about”	in reference to a percentage of water that appears, e.g., in claim 1 (“water content is in the range of about 20.0 to 40.0% by weight	Indefinite	in reference to a percentage of water that appears, e.g., in claim 1 (“water content is in the range of about 20.0 to 40.0% by weight

	with respect to that of said starch”). The specification makes clear that one of ordinary skill in the art would understand that such measurement may be made to plus or minus 0.1%		with respect to that of said starch”). The specification makes clear that one of ordinary skill in the art would understand that such measurement may be made to plus or minus 0.1%.
“said extruded mixture”	a mixture prepared by an extruder	Indefinite	a mixture prepared by an extruder
“injection molding and cooling”	injection molding a reason (starch) and cooling such to provide a molded article	The process by which the molded article is formed after exiting the vented barrel extruder, that includes an injection molding machine whose barrel first cools and then subsequently heats the beads prior to their injection into the mold cavity	The process by which the molded article is formed after exiting the vented barrel extruder, that includes an injection molding machine whose barrel first cools and then subsequently heats the beads prior to their injection into the mold cavity
“vented barrel injection molding machine”	an injection molding machine with a barrel providing venting	a barrel injection molding machine having at least one opening along or on the barrel, not including the entry or exit of the injection molding machine, such that gaseous material or vapor escapes through the opening(s).	a barrel injection molding machine having at least one opening along or on the barrel, not including the entry or exit of the injection molding machine, such that gaseous material or vapor escapes through the opening(s).
“vented mold”	a mold that provides venting to allow	a mold that contains opening(s) such that	a mold that contains opening(s) such that

	volatiles (water) to escape	gaseous material or vapor escapes through the opening(s)	gaseous material or vapor escapes through the opening(s)
“hopper feed section”	an opening in an extruder or injection molding machine where resin (starc) and extruded beads, respectively, may be introduced and/or where venting may occur	A device that facilitates the entry of material, i.e., feed, into the barrel of an injection molding machine.	A device that facilitates the entry of material, i.e., feed, into the barrel of an injection molding machine.

An appropriate Order shall follow.

Dated: March 5, 2012

/s/ Freda L. Wolfson

Freda L. Wolfson, U.S.D.J.