United States District Court,
N.D. New York.

The DOW CHEMICAL COMPANY,
Plaintiff.
v.
ASTRO-VALCOUR, INC,
Defendant.

April 28, 1999.

Holder of patents for plastic packaging material sued competitor for infringement. On competitor's motion to construe claims, the District Court, McAvoy, Chief Judge, held that: (1) term "foam" was not limited to dimensionally stable foam, and (2) term "perforating" meant creation of channels in foam that allowed for accelerated release of blowing agent.

Claims construed.

4,640,933, 4,663,361, 4,694,027, 5,424,016, 5,585,058. Construed.

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MEMORANDUM-DECISION & ORDER

McAVOY**, Chief Judge.**

Plaintiff The Dow Chemical Company ("Dow") brings this action for patent infringement pursuant to 35 U.S.C. s. 271 against defendant Astro-Valcour, Inc. ("AVI"). Presently before the Court are AVI's motions for the construction of various claim terms in Dow's patents.

I. BACKGROUND

A. Facts

Both Dow and AVI manufacture and sell plastic packaging materials, including plastic foam. Plastic foam is made by mixing a polymer resin with a blowing agent and other additives. The mixture is melted and blended in a pressurized environment before the mixture is pushed through a die into the non-pressurized

atmosphere where it expands. The plastic foam is then allowed to cure such that the hot plastic cools and hardens.

A blowing agent is a chemical that produces a superatmospheric pressure inside the cells of the polymer, causing its individual cells to grow. The principal purpose of the blowing agent is to bring about the formation and inflation of the cells that comprise the plastic foam. For years, manufacturers of plastic foam used chlorofluorocarbon ("CFC") blowing agents. Recently, however, concern over the impact of CFCs on the earth's ozone layer has caused foam manufacturers to replace CFC blowing agents with hydrocarbon and other blowing agents. Although the use of these alternative blowing agents has reduced or eliminated the problems associated with the use of CFCs, they present their own unique problems.

One problem associated with blowing agents is that they diffuse out of the foam too quickly during the aging period, causing the foam to experience unacceptable shrinkage. Specifically, once the foam is formed, the gaseous blowing agent begins to permeate out of the foam, and air begins to permeate in. If the blowing agent permeates out more quickly that the air permeates in, the foam can shrink because the pressure inside the cells of the foam become less than the atmospheric pressure. Thus, manufacturers have attempted to find a blowing agent that can form and inflate the cells of the plastic foam, yet which also exhibits a high degree of dimensional stability with minimal shrinkage during aging. A stability control agent helps to control this shrinkage by slowing the rate of release of the blowing agent from the foam until air can permeate into the foam to balance the pressure inside the foam's cells.

Dow owns five patents related to the manufacture of plastic foam. In the first set of patents, there are three related patents directed to the use of isobutane as a blowing agent in creating foam structures: U.S. Patent No. 4,640,933 ("the "3 patent"), U.S. Patent No. 4,694,027 ("the '027 patent"), and U.S. Patent No. 4,663,361 ("the '361 patent") (collectively, the "isobutane patents"). The isobutane patents derive from the original application filed on December 24, 1985, and each describes an invention comprising three elements: (1) an olefin polymer resin, (2) a stability control agent, and (3) a blowing agent consisting of isobutant or certain mixtures of isobutane and other blowing agents. Specifically, the "3 patent, which issued on February 3, 1987, describes the foam made with those elements; the '361 patent, which issued on May 5, 1987, describes a foamable polymer composition for making foam using those elements; and the '027 patent, which issued on September 15, 1987, describes the process for making foam with those elements.

In the second set of patents, there are two related patents directed to the perforation of plastic foam: U.S. Patent No. 5,424,016 ("the '016 patent"), and U.S. Patent No. 5,585,058 ("the '058 patent") (collectively, the "perforation patents"). The perforation patents cover a method of accelerating the release of a blowing agent from plastic foam. The purpose of perforation is to create channels in the foam to allow the blowing agent to escape more readily to the outside atmosphere than if the blowing agent was forced to permeate only through the cell walls of the plastic foam.

B. Procedural History

On September 21, 1995, Dow commenced this action against AVI, alleging the infringement of its isobutane and perforation patents. AVI now moves for the construction of various claim terms in the patents. Specifically, with respect to the isobutane patents, it seeks the construction of the terms (1) "polyolefin foam," "polymeric composition" and "olefin polymer foam." As to the perforation patents, it seeks the construction of the terms (2) "plastic foam" and "polyethylene foam," (3) "accelerated release," (4) "perforating," and (5) "extruded." On November 9, 1998, a *Markman* Hearing FN1 was held at which the

parties presented oral argument on the construction of the disputed claim terms and background expert testimony relating to the manufacturing process of plastic foam. The following discussion contains the Court's construction of the disputed claim terms.

FN1. A *Markman* Hearing refers to a pre-trial proceeding for determining the construction of disputed claim terms. It traces its origin to the Federal Circuit's *en banc* decision in Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), in which the court held that interpretation of a claim, as the first of a two-step process for determining patent infringement, is a question of law for the court.

II. DISCUSSION

A. Standard for Claim Construction

[1] [2] [3] A patent infringement analysis involves two steps: first, a court determines the scope and meaning of a patent claim; and second, the construed claim is compared to the allegedly infringing product or process. Markman, 517 U.S. at 390, 116 S.Ct. 1384; Cybor Corp. v. FAS Technologies, Inc., 138 F.3d 1448, 1454 (Fed.Cir.1998) (*en banc*). The first step presents a question of law exclusively for the court; the second step a question of fact generally for the jury. Markman, 517 U.S. at 390, 116 S.Ct. 1384; Intervet Am., Inc. v. Kee-Vet Labs., Inc., 887 F.2d 1050, 1053 (Fed.Cir.1989).

B. The Isobutane Patents

[6] With respect to the isobutane patents, AVI seeks the construction of the claim terms "polyolefin foam" in the "3 patent, "polymeric composition" in the '361 patent and "olefin polymer foam" in the '027 patent. As these terms are not meaningfully different for purposes of construction, I will follow the lead of the parties and refer to them collectively as "foam."

According to AVI, foam should be construed to require foam that is "dimensionally stable." As support, AVI relies heavily on the prosecution history, in which it asserts that DOW narrowed its claims before the Patent Trade Office ("PTO") to foam having dimensional stability to distinguish its claims from prior art. AVI asserts that Dow's test data submitted to the PTO emphasized this distinction and that without it, Dow's isobutane patents add nothing to the prior art and thus would be unpatentable. AVI also relies on the specification sections of the patents, which it asserts repeatedly emphasize the criticality of dimensional stability. Further, it cites to the claim language itself, which requires a stability control agent as a component of the claimed foam composition. This is significant, according to AVI, becausethe purpose of the stability control agent is to render the foam stable.

AVI's construction is flawed. The term "dimensional stability" appears in only four dependent claims of the "3 patent and in the preamble of the '027 patent; it does not appear in any of the claim terms that AVI now seeks to add it too. Simply put, while AVI seemingly requests the construction of the term foam, it is not attempting to define this commonly understood term. Rather, it seeks to interject into foam the requirement of dimensional stability. Essentially, AVI endeavors to add words-dimensionally stable-to all of the isobutane patents claims that use the claim terms foam but which do not contain this requirement. Thus properly understood, AVI is not attempting to construe existing claim language; it is attempting to limit the scope of the invention itself by adding a requirement not found there.

AVI's construction is contrary to existing precedent. As explained in Autogiro Co. of Am. v. United States, 181 Ct.Cl. 55, 384 F.2d 391, 395-96 (Ct.Cl.1967):

The claims of the patent provide the concise formal definition of the invention. They are the numbered paragraphs which particularly [point] out and distinctly [claim] the subject matter which the applicant regards as his invention. It is to these wordings that one must look to determine whether there has been infringement. Courts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth. No matter how great the temptations of fairness or policy making, courts do not rework claims. They only interpret them.

See also E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed.Cir.) (citing *Autogiro*), *cert. denied,* 488 U.S. 986, 109 S.Ct. 542, 102 L.Ed.2d 572 (1988); McCarty v. Lehigh Valley R. Co., 160 U.S. 110, 116, 16 S.Ct. 240, 40 L.Ed. 358 (1895) ("[W]e know of no principle of law which would authorize us to read into a claim an element which is not present...."). Here, the plain language of the claims does not require dimensional stability. As such, to read this requirement into them would be error. *See* du Pont, 849 F.2d at 1433 (discussed below); American Standard Inc. v. Pfizer Inc., 722 F.Supp. 86, 93 (D.Del.1989) (refusing to read requirement of "bone growth" into patent); Procter & Gamble Co. v. Nabisco Brands, Inc., 711 F.Supp. 759, 764-65 (D.Del.1989).

Furthermore, the examiner in charge of prosecution of the isobutane patents specifically treated the term "dimensionally stable" numerous times and allowed claims both with and without this language. If the examiner wanted the requirement of dimensionally stable in the claims, he presumably would have ensured that it appeared there. AVI thus, in effect, asks the Court to hold the examiner incompetent to understand this distinction among Dow's claims. Additionally, it seeks to have this Court substitute its judgment for the PTO by having the claims limited by the language dimensionally stable. This is not appropriate. *See* Intervet, 887 F.2d at 1054 ("The presumption of validity under 35 U.S.C. s. 282 carries with it a presumption the examiner did his duty and knew what claims he was allowing. In any event, the claims as allowed are what we have to deal with and it is not for the courts to say that they contain limitations which are not in them.") (citations omitted).

AVI's construction also is at odds with the doctrine of claim differentiation, which presumes that there is a difference in scope among the claims of a patent. *See, e.g.,* United States v. Telectronics, Inc., 857 F.2d 778, 783-84 (Fed.Cir.1988), *cert. denied,* 490 U.S. 1046, 109 S.Ct. 1954, 104 L.Ed.2d 423 (1989). Simply stated, by reading the requirement of dimensionally stable foam from the narrower dependent claims of the isobutane patents into the broader independent claims, AVI renders the dependent claims superfluous.FN2 *See id.;* Beachcombers v. WildeWood Creative Products, Inc., 31 F.3d 1154, 1162 (Fed.Cir.1994) (stating that it is "presumptively unreasonable" to interpret different claims as having the same scope); Specialty Composites v. Cabot Corp., 845 F.2d 981, 987 (Fed.Cir.1988) ("Where some claims are broad and others narrow, the narrow claim limitations cannot be read into the broad whether to avoid invalidity or escape infringement.") (quoting Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 770, (Fed.Cir.1983), *cert. denied,* 465 U.S. 1026, 104 S.Ct. 1284, 79 L.Ed.2d 687 (1984)).

FN2. The distinction between an independent and dependent claim is as follows: "An independent claim does not refer to any other claim of the patent and is read separately to determine its scope. A dependent claim refers to at least one other claim in the patent, includes all of the limitations of the claim to which it refers, and specifies a further limitation on that claim." Jeneric/Pentron, Inc. v. Dillon Co., Inc., 1999 WL

66537, at (D.Conn. Feb.3, 1999).

[7] AVI advances several arguments that merit discussion. First, AVI relies on the specifications of the isobutane patents, which speak of dimensional stabile foam. Its mistake here, however, is that while dimensional stability is undeniably an advantage of the isobutane patents as recited in the specifications, it is improper to read this advantage from the specification sections into the claims as a requirement of the inventions themselves. Comark Communications, Inc., 156 F.3d at 1186 (noting that Federal Circuit has repeatedly held "limitations from the specification are not to be read into the claims"); Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc., 141 F.3d 1084, 1096 (Fed.Cir.1998) (Newman J., dissenting) ("Advantages described in the body of the specification, if not included in the claims, are not per se limitations to the claimed invention."); Hoganas AB v. Dresser Indus., Inc., 9 F.3d 948, 950 (Fed.Cir.1993) (finding that district court erred in interpreting " 'straw-shaped, channel-forming element' limitation to mean 'straw-sized' ... because [the claim] does not impose any requirement as to size."); d u Pont, 849 F.2d at 1433 (Fed.Cir.1988) ("It is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim. But this is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.") (internal citation omitted).

[8] Second, AVI relies on the prosecution history to support its construction. However, the preceding principle applies equally here; that is, while the prosecution history is relevant to interpreting the claim language, see Laitram Corp. v. Morehouse Ind., Inc., 143 F.3d 1456, 1463 (Fed.Cir.1998), it cannot be used to rewrite claims to impose a requirement not found in the claim language. *See* Intervet, 887 F.2d at 1053 (stressing the "impropriety of injecting into claims limitations from the prosecution history"). At bottom, AVI is not using the prosecution history to aid in the interpretation of a term already in the claim-which would be entirely permissible. Rather, it is using the prosecution history to import an additional property into the claim-an entirely inappropriate tactic. *See id*.

The d *u Pont* case is instructive in this regard. In that case, the district court interpreted the claims as including two properties or advantages of the claimed inventions-"superior environmental stress crack resistance and impact strength." 849 F.2d at 1433. The Federal Circuit reversed, holding that "[c]ourts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth. No matter how great the temptations of fairness or policy making, courts do not rework claims. They only interpret them." *Id*. (quoting Autogiro, 384 F.2d at 395-96). Like the d *u Pont* defendants, AVI seeks to add a property to claims that contain no such property. d *u Pont* teaches this would be error.

Third, AVI contends that the claim language itself supports its construction because the claim language includes the term "stability control agent," which has as its basic purpose to allow for dimensional stable foam. The flaw here, however, is that while dimensional stability is obviously an intended advantage or purpose of the patents as expressed by the stability control agent component, it is not a requirement contained in the claims themselves. In other words, the isobutane patent claims in question do not claim dimensionally stable foam. *See, e.g.,* du Pont, 849 F.2d at 1433; American Standard Inc., 722 F.Supp. at 93. This distinction between an advantage and a limitation is illustrated by an example offered by Dow. An engineer invents an electric car that can travel 100 miles per hour. The engineer files a patent application claiming an electric car traveling 100 miles per hour comprising an automobile with four wheels, a battery, an electric motor, and a widget connecting the battery to the electric motor that increases the motor's efficiency. The invention is the car-comprised of a body with four wheels, a battery, an electric motor and a widget-not that the car can travel 100 miles per hour. The speed of the car is an advantage of the invention,

not a limitation to the claim. In this case, the invention is the use of a blowing agent in conjunction with a permeability modifier that allows for dimensionally stable foam; it is not the advantage of dimensionally stable foam.

[9] Fourth, AVI points to the term "dimensional stability" in the preamble of the '027 patent, asserting that the preamble of the claim is a positively stated limitation of the claim. The Federal Circuit has held that:

A claim preamble has the import that the claim as a whole suggests for it. Where a patentee uses the claim preamble to recite structural limitations of his claimed invention, the PTO and courts give effect to that usage. Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.

Rowe v. Dror, 112 F.3d 473, 478-79 (Fed.Cir.1997) (internal quotations and citations omitted); *see also* Kropa v. Robie, 187 F.2d 150, 151-52 (Cust. & Pat.App.1951) (summarizing collection of cases). In this case, dimensional stability is not a structural limitation of the claims, but rather, an advantage or objective of the invention. Moreover, the claim body defines the structurally complete invention. As such, the preamble of the '027 patent does not support AVI's construction.

Finally, AVI suggests that without defining foam as dimensionally stable, the isobutane patents add nothing to the prior art and thus would be invalid. This stage of the proceeding, however, is addressed only to the construction phase of the isobutane patents. *See, e.g.,* Stairmaster Sports/Med. Prods., Inc. v. Groupe Procycle, Inc., 1998 WL 290296, at n. 5 (D.Del. May 20, 1998); Rohm and Haas Co. v. Lonza Inc., 997 F.Supp. 635, 639-40 (E.D.Pa.1998). Inasmuch as AVI relies on the "language in [prior] decisions [that] may have given the perception that claims are to be 'saved' from invalidity by reading extraneous limitations into them, [the Federal Circuit's] consistent approach in interpreting claims, and in rejecting resort to extraneous limitations from the specification, should have negated that perception by now." d u Pont, 849 F.2d at 1434 (internal citations omitted).

It also is significant that aside from being incorrect as a matter of patent interpretation, AVI'S construction is incorrect as a factual matter. As noted by Dow, the isobutane patents do not always result in dimensionally stable foam as defined by AVI. Thus, to say foam *means* dimensionally stable foam is inaccurate, and does not reflect the invention as set forth in the claims.

For all these reasons, I cannot accept AVI's proposed construction that adds the requirement of "dimensionally stable" to the claim terms "polyolefin foam" in the "3 patent, "polymeric composition" in the '361 patent and "olefin polymer foam" in the '027 patent.FN3

FN3. As AVI's papers do not seek the construction of the claim term "dimensional stability" in the dependent claims 11-14 of the 1933 patent, I will not address this issue.

C. The Perforation Patents

Turning now to the perforation patents, AVI seeks the construction of the following terms: (1) "plastic foam" in the '016 patent and "polyethylene foam" in the '058 patent; (2) "accelerated release" in both patents; (3) "perforating" in both patents; and (4) "extruded" in independent claim 1 of the '016 patent and

independent claim 44 of the '058 patent. Each will be addressed in turn.

1. Plastic Foam and Polyethylene Foam

[10] AVI contends that "plastic foam" and "polyethylene foam" means foam product of any thickness, and therefore, encompasses both plank and sheet foam thickness.

Dow, in response, concedes that the terms refer to foam product regardless of thickness. Nonetheless, it asserts that when used in the context of the invention, which accelerates the release of a blowing agent, the terms refer to polyethylene foam containing a permeability modifier and a blowing agent.

I disagree with this last part of Dow's construction. First, limiting plastic foam to polyethylene foam is incorrect, as polyethylene is only one of the potential plastic resins listed in the '016 patent. Second, while admittedly the foam must contain a blowing agent and a permeability modifier, those are additional undisputed limitations already existing in the claim. Thus, they are unnecessary to the construction of the above terms.

2. Accelerated Release

[11] The next term at issue is the preamble term "accelerated release." In this regard, AVI mounts a two-tiered attack. As an initial matter, it argues that construction of the preamble claim term accelerated release is unnecessary because it should not be read to limit the claims as it relates to only the purpose of the patent rather than a structural limitation. Alternatively, it asserts that accelerated release means that the rate of release of the blowing agent occurs more quickly than what the rate of release would be without channels perforating the foam. Oddly, Dow skips over AVI's first tier of argument and proceeds to the second, to which it counters that accelerated release means that the rate or release of the blowing agent over time, after perforating, is increased so that the time required to cure the foam is substantially reduced relative to the time required to cure the foam without perforation.

[12] As to AVI's first point that the preamble term accelerated release is not a claim limitation, I disagree. As previously explained, a preamble is a claim limitation if it is necessary to provide meaning to the claimed invention. Rowe, 112 F.3d at 478-79; In re Paulsen, 30 F.3d 1475, 1479 (Fed.Cir.1994). Conversely, it is not a limitation if the claimed invention is complete and the preamble only states a purpose or intended use of the invention. Rowe, 112 F.3d at 478-79. Here, the preamble states as follows: "A method for providing accelerated release of a blowing agent from an extruded plastic foam...." Accelerated release is thus more than just a mere statement of the purpose of the perforation patents; it is essential to breath life, meaning, and vitality to the claims. *See* In re Paulsen, 30 F.3d at 1479; Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620 (Fed.Cir.1995); Porter v. Farmers Supply Serv., Inc., 790 F.2d 882, 885 (Fed.Cir.1986) (stating that preamble "gives meaning to other elements of the claimed invention"); *see generally* 2 DONALD S. CHISUM, PATENTS s. 8.06[1][d] (1998). Further, in light of the specification and prosecution histories, it is plain that the claims require accelerated release. *See* Rowe, 112 F.3d at 478-80.

Turning to the construction of that term, I agree with AVI that it means that the rate of release of the blowing agent occurs more quickly than what the rate of release would be without channels perforating the foam. Interpretation begins with the words in a claim, which should generally be ascribed their ordinary and customary meaning. *See, e.g.,* Bell Communications Research, Inc., 55 F.3d at 620. The ordinary meaning of the word accelerated is to increase over what would otherwise be the case. This comports with AVI's

construction.

[13] In addition to examining ordinary meaning, "it is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." Vitronics, 90 F.3d at 1582 (citing Markman, 52 F.3d at 979); Hormone Research Found., Inc. v. Genentech, Inc., 904 F.2d 1558, 1563 (Fed.Cir.1990) ("[A] patentee is free to be his or her own lexicographer and thus may use terms in a manner contrary to or inconsistent with one or more of their ordinary meanings.").

In the case at bar, the specification defines the term to mean that "[t]he blowing agent permeates from the foam into channels to accelerate the release of blowing agent *from what the rate would be without channels*." *See* the '016 patent, at 3:20-24 (emphasis added). Again, this comports with AVI's construction. *See* Vitronics, 90 F.3d at 1582 (espousing that specification is generally dispositive and "is the single best guide to the meaning of a disputed claim term"). Conversely, noticeably absent from this specification definition is any adjective like "substantially" to support Dow's construction. Nor is there any rate or quantity of release of blowing agent from the foam after perforation is set forth, other than a rate a release greater than a foam with no channels.

For these reasons, I agree with AVI's construction of accelerated release.

3. Perforating

The next claim term at issue is "perforating." AVI construes perforating to mean using any device that creates "channels" in the foam, which channels may be any cross-sectional shape, including rectangular. Dow does not disagree with that definition insofar as it goes; however, it seeks to add a functional limitation that the channels formed must "allow accelerated release of the blowing agent so that the cure time is substantially reduced."

[14] As I have already noted, accelerated release is to be read into the claim to the extent stated above. Accordingly, I construe "perforating" to mean using any device that creates "channels" in the foam, which channels may be any cross-sectional shape, including rectangular, that allow for the accelerated release of a blowing agent.

4. Extruded

[15] The final claim term in dispute is "extruded." According to AVI, extruded means foam created by using the well-known extruder apparatus that uses a screw-device to continuously force pressurized polymer gel through a die into a lower pressure area. Dow's definition, by contrast, is that of forcing a polymer gel through a die under a compressive force.

Essentially, the point of disagreement between the parties is whether extruded should be limit to any one type of process or to the use of any specific apparatus. As to this construction issue, I side with Dow. The language in the specifications of the perforation patents does not limit the term extruded to a specific type of process and apparatus. *See* du Pont, 849 F.2d at 1433; American Standard Inc., 722 F.Supp. at 93; Hoganas 9 F.3d at 950. Rather, the specifications state, in pertinent part:

Providing the plastic foam comprises blending of various components, including a resinous melt of a

foamable polymer and a blowing agent, under pressure to form a foamable plastic gel and *extruding the foamable gel through a conventional die (not shown) to a region of lower pressure to form the foam*. The blending of various components of the foamable gel may be accomplished according to known techniques in the art. Suitably a mixer, extruder, or other suitable blending device (not shown) may be emphasized to obtain homogeneous gel. *The molten foamable gel is then be [sic] passed through conventional dies to form the foam*.

'016 patent, col. 4, lines 16-27 and '058 patent, col. 4, lines 33-44 (emphasis added). Furthermore, no limitation on the term is provided anywhere in the patents or the prosecution histories. Although the example in the '016 patent utilizes an extruder apparatus that appears to be of a conventional screw-type, it is improper to read this extraneous limitation in the specification into the claims. *See, e.g.,* du Pont, 849 F.2d at 1432; Intervet, 887 F.2d at 1056.

Accordingly, I find that extruded means forcing a polymer gel through a die under a compressive force.

III. CONCLUSION

For the reasons stated above, I hold that: (1) "polyolefin foam" in the "3 patent, "polymeric composition" in the '361 patent and "olefin polymer foam" in the '027 patent do not require dimensional stability, and that the preamble of the '027 patent does not limit the claim to foams that have dimensional stability; (2) "plastic foam" in the '016 patent and "polyethylene foam" in the '058 patent mean foam product of any thickness; (3) "accelerated release" in both perforation patents means that the rate of release of the blowing agent occurs more quickly than what the rate of release would be without channels perforating the foam; (3) "perforating" in both perforation patents means using any device that creates "channels" in the foam, which channels may be any cross-sectional shape, including rectangular, that allow for the accelerated release of the blowing agent; and (5) "extruded" in independent claim 1 of the '016 patent and independent claim 44 of the '058 patent means forcing a polymer gel through a die under a compressive force.

IT IS SO ORDERED.

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