**IN THE UNITED STATES DISTRICT COURT**
**FOR THE DISTRICT OF DELAWARE**

| | | |
|---|---|---|
| AKZO NOBEL COATINGS, INC., | : | |
| | : | |
| Plaintiff, | : | |
| | : | |
| v. | : | C.A. No. 12-1264-LPS |
| | : | |
| DOW CHEMICAL COMPANY, | : | |
| | : | |
| Defendant. | : | |
| | : | |
| | : | |

**MEMORANDUM OPINION**

Michael P. Kelly, Daniel J. Brown, Daniel M. Silver, McCARTER & ENGLISH, LLP, Wilmington, DE

Richard DeLucia, Michael D. Loughnane, Elizabeth Gardner, Merri C. Moken, KENYON & KENYON LLP, New York, NY

Counsel for Plaintiff

Rodger D. Smith II, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE

Harry J. Roper, Aaron A. Barlow, Paul D. Margolis, JENNER & BLOCK, Chicago, IL

Counsel for Defendants

January 26, 2015
Wilmington, Delaware

**STARK, U.S. District Judge:**

Presently before the Court is the issue of claim construction of various disputed terms of U.S. Pat. No. 6,767,956 ("the '956 patent"). Also pending is Defendant Dow Chemical Company's ("Dow" or "Defendant") motion for summary judgment of non-infringement. (D.I. 60) Below the Court provides its constructions for the disputed claim terms and explains why it will grant Dow's motion for summary judgment.

## I. BACKGROUND

Plaintiff Akzo Nobel Coatings, Inc. ("Akzo" or "Plaintiff") filed this patent infringement action against Dow on October 4, 2012, alleging infringement of the '956 patent. (D.I. 1) The '956 patent is entitled "Extrusion Process" and relates to the manufacture of aqueous polymer dispersions. (D.I. 1-1)

On May 15, 2014, Dow filed its motion for summary judgment. (D.I. 60) The parties completed briefing on the motion on June 12, 2014. (D.I. 77, 80)

The parties completed their claim construction briefing on June 11, 2014. (D.I. 53, 55, 69, 72, 75, 76, 78, 79) In addition to the briefs, the parties submitted technology tutorials. (D.I. 51, 52)

On June 13, 2014, the Court heard argument on claim construction and summary judgment. (*See* D.I. 85) ("Tr.")

## II. LEGAL STANDARDS

### A. Claim Construction

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312

(Fed. Cir. 2005) (internal quotation marks omitted). Construing the claims of a patent presents a question of law. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977-78 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 388-90 (1996). "[T]here is no magic formula or catechism for conducting claim construction." *Phillips*, 415 F.3d at 1324. Instead, the court is free to attach the appropriate weight to various sources "in light of the statutes and policies that inform patent law." *Id.*

"[T]he words of a claim are generally 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, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13 (internal citations and quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). The patent 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." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While "the claims themselves provide substantial guidance as to the meaning of particular claim terms," the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, "[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent . . . ." *Id.* (internal citation omitted).

It is likewise true that "[d]ifferences among claims can also be a useful guide . . . . For example, 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 1314-

15 (internal citation omitted). This "presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim." *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible 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." *Phillips*, 415 F.3d at 1316. It bears emphasis that "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (internal quotation marks omitted), *aff'd*, 481 F.3d 1371 (Fed. Cir. 2007).

In addition to the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Markman*, 52 F.3d at 980. The prosecution history, which is "intrinsic evidence," "consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent." *Phillips*, 415 F.3d at 1317. "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

A court also may 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." *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries "endeavor to collect the accepted meanings of terms used in various fields of science and technology." *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful "to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of ordinary skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* Nonetheless, courts must not lose sight of the fact that "expert reports and testimony [are] 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.* Overall, while extrinsic evidence "may be useful" to the court, it is "less reliable" than intrinsic evidence, and its consideration "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318-19.

Finally, "[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." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GmbH v. ITC*, 505 F.3d 1351, 1358 (Fed. Cir. 2007).

**B. Summary Judgment**

"The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *See Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574,

585-86 (1986). An assertion that a fact cannot be – or, alternatively, is – genuinely disputed must be supported either by citing to "particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for purposes of the motion only), admissions, interrogatory answers, or other materials," or by "showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact." Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party carries its burden, the nonmovant must then "come forward with specific facts showing that there is a genuine issue for trial." *Matsushita*, 475 U.S. at 587 (internal quotation marks omitted). The Court will "draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the nonmoving party must "do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita*, 475 U.S. at 586; *see also Podobnik v. U.S. Postal Serv.*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment "must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue") (internal quotation marks omitted). However, the "mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment;" and a factual dispute is genuine only where "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). "If the evidence is merely colorable, or is not significantly probative, summary judgment may be

granted." *Id.* at 249-50 (internal citations omitted); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated "against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial"). Thus, the "mere existence of a scintilla of evidence" in support of the nonmoving party's position is insufficient to defeat a motion for summary judgment; there must be "evidence on which the jury could reasonably find" for the nonmoving party. *Anderson*, 477 U.S. at 252.

## III. CONSTRUCTION OF DISPUTED TERMS

### A. "vessel," "collection vessel," and "pressurized collection vessel"

| | **"vessel"** | **"collection vessel"** | **"pressurized collection vessel"** |
|---|---|---|---|
| **Plaintiff's Proposed Construction** | tubing, piping or other container that receives material under pressure | | |
| **Defendant's Proposed Construction** | A container, used for holding liquids or other contents. | A vessel where a desired material accumulates; does not include a vessel that has the desired material continuously passing through it. | A collection vessel that is closed to the atmosphere so that the head space above any liquid being collected is maintained above atmospheric pressure. |
| **Court's Construction** | Tubing, piping, or other container where a desired material accumulates, which is maintained above atmospheric pressure | | |

The issue here is whether the use of a continuous flow vessel, rather than a vessel which allows for material to accumulate, falls within the scope of the claim terms. Plaintiff proposes that the term "pressurized collection vessel" includes any vessel which receives or channels material (including, for example, a garden hose). Defendant asserts that Plaintiff's proposed

construction obviates the import of the word "collection." The Court agrees with Defendant as to the effect of the word "collection" and construes these terms with this recognition in mind.

The Court further agrees with Defendants that the proper construction of these terms is one that gives meaning to each of the words "pressurized" "collection" and "vessel." While this does not, in the Court's view, require separate constructions of each of these terms, it does mean that Plaintiff's proposed construction is improper because it would cover any "pressurized vessel" regardless of whether it is a collection vessel. (*See* D.I. 69 at 2) To give meaning to the word "collection" in this context, some amount of material must be permitted to accumulate within the vessel, rather than all of the material flowing through the vessel at a constant rate. This is, for instance, how the term "collected" is used in the specification's Examples 2 and 3. (*See* '956 patent, col. 6 l. 40 and col. 7 l. 1)

The Court is not persuaded to adopt Defendant's proposed limitations of "not continuously passing through" or "head space," as these are not supported by the language of the claim. Instead, adopting Defendant's proposals on these limitations would improperly import limitations from the specification's examples.

**B. "maintaining the pressure above atmospheric for the extruder at the outlet with a pressurized collection vessel"**

| | |
|---|---|
| **Plaintiff's Proposed Construction** | This phrase should be given its customary meaning as understood by one of ordinary skill in the art.[1] |

[1]On most of the terms in dispute, Plaintiff's proposed "construction" is nothing more than a conclusory assertion of "ordinary and customary meaning," without providing any content as to what that "ordinary and customary meaning" might be. The Court concludes that each of the disputed terms presented by the parties requires construction. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

| | |
|---|---|
| **Defendant's Proposed Construction** | A valve is not used to maintain pressure.<br>The pressure within the extruder is maintained by use of a pressurized collection vessel placed at the outlet with no intervening pressure maintaining means between the extruder outlet and the pressurized collection vessel.<br>The pressurized collection vessel is located at the outlet to the extruder so that the dispersion exits the extruder to the pressurized collection vessel. |
| **Court's Construction** | Maintaining the pressure at the outlet of the extruder at above atmospheric pressure. |

Dow contends that this claim term must be construed in accordance with a prosecution history disclaimer made by the patentee. Specifically, Dow argues that removing the term "a pressure relief valve or" from the longer phrase "a pressure relief valve or a pressurized collection vessel" during prosecution mandates that the construction of this claim term exclude any device which includes a pressure relief valve. (*See, e.g.*, D.I. 53 at 11) Plaintiff argues that "Dow's proposed construction improperly reads structural limitations into Akzo's process claims that have no foundation in intrinsic evidence." (D.I. 72 at 12)

The Court is not persuaded that the patentee clearly and unambiguously disavowed use of a pressure relief valve in the patented system. The prosecution history is silent regarding the removal of the phrase "a pressure relief valve or." The reasons for and import of the amendment are ambiguous.

The amendment is narrowing, but it does not narrow claim scope to the degree Dow contends. The deletion of the term "a pressure relief valve or" precludes the claim from covering the use of a valve as the sole means of pressure control, but, in the full context of the claim language and specification, it does not preclude using both a valve and a pressurized collection vessel to reach the same result. The Court is not persuaded by Defendant's argument that "or"

evidences a mutually exclusive arrangement, whereby the system must use only either a valve ***or*** a vessel.

### C. "the outlet and pressurized collection vessel at a pressure above atmospheric so that the aqueous medium does not boil"

| | |
|---|---|
| **Plaintiff's Proposed Construction** | This phrase should be given its ordinary and customary meaning as understood by one of ordinary skill in the art. |
| **Defendant's Proposed Construction** | the outlet of the extruder and the pressurized collection vessel are at the same pressure which is above atmospheric and operates to prevent the aqueous medium from boiling |
| **Court's Construction** | The outlet and pressurized collection vessel are kept above atmospheric pressure so that the aqueous medium does not boil, but need not be kept at the same pressure. |

The parties disagree as to whether the extruder and the pressurized collection vessel must be kept at the same pressure. Defendant argues that by referring to "a pressure," the claim language requires that the same single pressure applies to both the outlet and the pressurized collection vessel.

The Court finds that Dow's proposed limitation is not supported in the patent specification. The specification discusses variation in pressure points, which depend on temperature and can be easily calculated. ('956 Patent, col. 3 ll. 5-19) In this way the patent contemplates multiple pressure measurements, all of which might change depending on the temperature of the substance.

Defendant relies on a portion of the international prosecution history to support its proposed construction. However, the statement cited by Defendant was a general statement identifying a benefit of using a pressurized collection vessel when the vessel is connected at the extruder outlet; it was not a limitation on the claim. The patentee's statement was that "a further

advantage of using a pressurised collection vessel in this way [is that] since the collection vessel and the extruder are connected, and therefore at the same pressure, there is no need to let down the pressure at the extruder outlet." (D.I. 54-3 at ANC000071) The patentee never states that the pressure must be the same, nor that the pressure cannot be let down at the extruder outlet. At most, the patentee is stating an advantage to practicing the process in this manner, without stating that it needs always be practiced in this way.

**D. "viscosity below 10 Pa.s"**

| | |
|---|---|
| **Plaintiff's Proposed Construction** | viscosity below 10 Pa.s at room temperature |
| **Defendant's Proposed Construction** | Indefinite under § 112(b) |
| **Court's Construction** | viscosity below 10 Pa.s at room temperature |

Defendant argues that this term is indefinite, which raises the issue of whether the intrinsic evidence informs a person of ordinary skill in the art with reasonable certainty what temperature should be used to determine the viscosity. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). Plaintiff contends that persons skilled in the art know with reasonable certainty that viscosity measurements are taken at room temperature, despite the fact that the claim term appears in a sentence which leaves open the possibility for measurements to be taken at a range of temperatures. That is, the claim states that the dispersion is cooled "to lower the temperature of the aqueous dispersion ***to below 100°C.*** to have an aqueous dispersion with a ***viscosity below 10 Pa.s.***" (Claim 1 (emphasis added))

Plaintiff provided the Court with the expert declaration of Dr. Eldridge Mount to support its contention that one of ordinary skill in the art would be reasonably certain that, in the context

of the patent, viscosity in this claim term means "viscosity at room temperature." (D.I. 55-5 at 6) Plaintiff further points out that the final dispersion product is stored at room temperature, a fact which informs persons in the industry that the relevant temperature at which to measure viscosity is room temperature. (*See* Tr. at 101) Defendant disagrees and instead refers the Court to ASTM2 test protocols which identify a range of temperatures (up to 175°C) and which specify that a temperature should be reported whenever viscosity is reported. (D.I. 69 at 10)

The record now before the Court fails to establish by clear and convincing evidence that a person skilled in the art would not know with reasonable certainty at what temperature to measure viscosity. Therefore, the Court cannot find this claim term to be indefinite. To the contrary, the Court is persuaded that in context one of ordinary skill in the art would know with reasonable certainty that viscosity is to be measured at room temperature.

**E. "aqueous medium"**

| | |
|---|---|
| **Plaintiff's Proposed Construction** | This phrase should be given its ordinary and customary meaning as understood by one of ordinary skill in the art. |
| **Defendant's Proposed Construction** | Indefinite under § 112(b) or "aqueous phase" |
| **Court's Construction** | The aqueous medium is one that comprises largely water. There can be up to 40% by weight of water miscible organic solvents present in the aqueous medium. |

The proper construction of "aqueous medium" is contained in the specification, and this term is not indefinite. The specification states that the "aqueous medium" can be "up to 40% by weight of water miscible organic solvents." ('956 Patent, col. 4 ll. 12-14) Consistent with this, the claim itself indicates that "the aqueous medium has less than 40% by weight of organic solvent." At the hearing, Akzo indicated it had no objection to this construction. (*See* Tr. at 125)

Defendant asserts that "aqueous medium," if not indefinite, should be construed as "aqueous phase," based on the specification. The specification states, "Preferably the dispersion contains greater than 25% by weight of aqueous phase." ('956 Patent, col. 4 ll. 21-22) The Court is not persuaded that construing "aqueous medium" as "aqueous phase" is either correct or helpful.

### F. "the polymer is dispersed in an aqueous medium in an extruder at a temperature above 100°C"

| | |
|---|---|
| **Plaintiff's Proposed Construction** | This phrase should be given its ordinary and customary meaning as understood by one of ordinary skill in the art. |
| **Defendant's Proposed Construction** | Indefinite under § 112(b) or "the polymer is dispersed in an aqueous medium in an extruder where the temperature of the extruder along the entire length is above 100°C" |
| **Court's Construction** | In an extruder, the polymer is dispersed in an aqueous medium at a temperature above 100°C. |

The issue here is determining which phrase in the claim the term "at a temperature above 100°C" modifies. Defendant's position is that either the term is indefinite or it means that the ***extruder*** must be at a temperature above 100°C. The Court disagrees.

Instead, the claim language indicates that what is relevant, and what is being referred to, is the temperature of the dispersion. Claim 1 twice states that the pressure must be maintained above atmospheric "so that the aqueous medium does not boil." ('956 Patent, col. 7 l. 14 and col. 8 l. 1) The concern is that the ***dispersion*** not boil, and therefore the concern is with the temperature of the ***dispersion*** (and not of the extruder in which the dispersion is contained). Other references in the claim to the 100°C measurement also relate to the dispersion, and not the extruder. (*See* '956 Patent, col. 8 ll. 2-3) ("to lower the temperature of the aqueous dispersion to

below 100°C") Dow identifies no intrinsic evidence which contradicts this interpretation of the claim language.

Dow's related contention that the temperature of the extruder must be kept above 100°C along its entire length is also unpersuasive. Defendant's argument is that because the polymer dispersion within the extruder must be above the boiling point, then the extruder itself which contains the dispersion must be kept above 100°C. The claim limitation relates to the temperature of the dispersion from the extruder, not the temperature of the extruder. There is no basis to import into the claim a limitation as to the temperature of the extruder.

### G. "process . . . carried out at a temperature of from 5 to 150° C above the melting point of the polymer"

| | |
|---|---|
| **Plaintiff's Proposed Construction** | This phrase should be given its ordinary and customary meaning as understood by one of ordinary skill in the art. |
| **Defendant's Proposed Construction** | Indefinite under § 112(b) or "the entire process is carried out at a temperature of from 5 to 150° C above the melting point of the polymer" |
| **Court's Construction** | The elevated temperature phases of claim 1 are carried out at a temperature of from 5 to 150° C above the melting point of the polymer. |

Dependent claim 2 limits the temperature at which the method of claim 1 is carried out. The parties dispute whether this limitation applies to the entire process of claim 1, including "the extrusion, collection, and other post-extrusion steps" (possibly including cooling), (D.I. 53 at 20), or whether it only applies to "the dispersing steps [that] take place ***before*** the dispersion exits the extruder" (D.I. 55 at 18) (emphasis in original). Defendant argues that claim 2 does not specify at which point the temperature limitation applies and, therefore, is indefinite. Alternatively, Defendant contends that the entire process must be carried out at from 5 to 150° C above the

melting point of the polymer.

The patent explains that the polymer is heated in the "initial melt zone of the extruder, at a temperature above the melting point of the polymer, preferably from 5 to 150°C., typically 10 to 130°C., above the melting point." ('956 patent, col. 2 at ll. 38-41) The patent specification supports a construction which indicates that the limitation in claim 2 refers to the elevated temperature phases and not to the stages that follow, stages at which no temperature is specified.

Dow has provided no evidence to show that a person of ordinary skill in the art would not know with reasonable certainty the steps to which the limitation in claim 2 applies. Moreover, the claim language and the specification define a process in which there is an elevated temperature phase or a melting period during the extrusion process, and once the polymer is dispersed in the aqueous liquid it is cooled to below the boiling point of water. A person skilled in the art would know with reasonable certainty that temperatures should not be higher than the melting point of the polymer during cooling. It follows that the person skilled in the art would reject Defendant's alternative construction which would nonsensically require "the entire process" to be carried out at elevated temperatures.[2]

## IV. MOTION FOR SUMMARY JUDGMENT

Infringement is a two step inquiry. Step one requires the Court to construe the disputed terms of the patent as a matter of law, which the Court has now done. *See Markman,* 517 U.S. at

---

[2]Dow's reliance on *Chef America, Inc. v. Lamb-Weston, Inc.* 358 F.3d 1371 (Fed. Cir. 2004), is unavailing. There the Court held the patentee to a nonsensical claim meaning because the claim language unambiguously required it, explaining: "Even a nonsensical result does not require the court to redraft the claims of the . . . patent. Rather, where as here, claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated." *Id.* at 1374 (internal citations omitted). Here, the claim language does not unambiguously compel the result Dow proposes.

384; *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). Step two is a factual inquiry that requires the properly construed claims be compared to the accused device. *See Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998). "Summary judgment on the issue of infringement is proper when no reasonable jury could find that every limitation recited in a properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents." *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1364 (Fed. Cir. 2005).

Dow asserts four bases for a grant of summary judgment of non-infringement: (1) Dow's accused process does not use a pressurized collection vessel; (2) Dow's accused process does not use a pressurized collection vessel at the outlet of the extruder without any intervening pressure maintaining means such as a valve; (3) Dow's accused process does not maintain the same amount of pressure at both the pressurized collection vessel and the extruder; and (4) Dow's accused process uses a valve, which has been expressly disclaimed during the prosecution history. (*See* D.I. 80) Each of these grounds for summary judgment relies on the Court adopting Dow's proposed construction of the pertinent disputed claim term.

As explained above, most of Dow's proposed constructions have been rejected. Hence, Dow cannot prevail on the second, third, or fourth grounds it has asserted for summary judgment, as each of these grounds relies on a claim construction which the Court has not adopted. More particularly, with respect to Dow's second asserted ground, because the Court – in construing "maintaining the pressure above atmospheric for the extruder at the outlet with a pressurized collection vessel" – did not find that use of an intervening pressure maintaining means such as a valve was disclaimed during prosecution, the presence in Dow's accused process of a valve does

not defeat Akzo's allegation of infringement. Similarly, with respect to Dow's third asserted ground, because the Court in construing "the outlet and pressurized collection vessel at a pressure above atmospheric so that the aqueous medium does not boil" rejected Dow's construction – that would have required the same pressure to be maintained both in the extruder and in the pressurized collection vessel – the presence in Dow's accused process of different pressures in the extruder and the pressurized collection vessel does not defeat Akzo's allegation of infringement. Likewise, with respect to Dow's fourth asserted ground, because the Court found that use of a valve was not disclaimed by the patentee during prosecution, Dow's use of a valve does not defeat Akzo's allegation of infringement.

This leaves just Dow's first asserted ground for summary judgment, that its accused process does not use a "pressurized collection vessel." The Court has construed "pressurized collection vessel" as "Tubing, piping, or other container where a desired material accumulates, which is maintained above atmospheric pressure." Among other things, this construction requires that "desired material accumulates."

Dow contends that the undisputed evidence demonstrates that its accused process is a continuous flow process, and the polymer dispersion never accumulates in a pressurized vessel. (*See* D.I. 61-2 at DCC00000079) Instead, after the polymer dispersion exits the extruder it passes through a series of heat exchangers which cool the dispersion to below 100° C. (*See* D.I. 77-1 at 18) After the dispersion is cooled to below the boiling point of water, there is no need to keep it under pressure to prevent boiling or "flashing." (*See* D.I. 77-1 at 6) Therefore, Dow's

accused process does not use a "pressurized collection device."[3]

The Court agrees with Dow. On the record created by the parties, taken in the light most favorable to Akzo and drawing all reasonable inferences in Akzo's favor, no reasonable juror could find that Dow's accused process uses a "pressurized collection device" as the Court has construed that term. There is no genuine dispute of material fact on this point. Instead, a reasonable juror could find only that the accused BLUEWAVE process allows for the polymer dispersion to flow continuously. Therefore, summary judgment of no literal infringement is warranted.[4]

Plaintiff contends that there is a genuine issue of material fact at least as to whether Dow's accused process infringements under the doctrine of equivalents. Akzo argues that "Dow's piping and its heat exchangers perform the same function and achieve the same result of maintaining the pressure for the extruder at the outlet above atmospheric pressure so that the aqueous medium does not boil." (D.I. 77 at 19-20) Akzo further contends that the record reveals a genuine dispute of material fact as to whether Dow's accused process collects and cools the extruded material in a confined space, achieving the result in substantially the same way as used by the inventors in Examples 2 and 3 of the '956 patent. (*See, e.g.*, D.I. 77 at 20)

The Court disagrees. Dow's accused process uses a valve and allows the polymer dispersion to flow continuously. It does not accumulate. To allow Akzo to prevail on

---

[3]Dow's process does use a collection device at the end of its extrusion process, which allows the final product to accumulate for collection, but it is not pressurized and, therefore, does not meet the limitations of the claim terms. (*See* D.I. 61 at 4; D.I. 61-2 at DCC00000330)

[4]Plaintiff provided an expert report (Dr. Mount), while Defendant did not. (*See* D.I. 55-5) In light of the Court's claim construction, Plaintiff's expert's opinion does not create a genuine dispute of material fact on the "collection" point. (*See* D.I. 80 at 2-3)

infringement by the doctrine of equivalents would vitiate the claim limitation that the "pressurized collection vessel" be a "container where the desired material accumulates." This would be improper under the law. *See Freedman Seating Co., v. Am. Seating Co.*, 420 F.3d 1350, 1358 (Fed. Cir. 2005).

## V. CONCLUSION

For the foregoing reasons, the Court construes the disputed claim terms of the '956 patent consistent with this Memorandum Opinion. The Court will also grant Dow's motion for summary judgment of non-infringement. An appropriate Order follows.

**IN THE UNITED STATES DISTRICT COURT**
**FOR THE DISTRICT OF DELAWARE**

| | | |
|---|---|---|
| AKZO NOBEL COATINGS, INC., | : | |
| | : | |
| Plaintiff, | : | |
| | : | |
| v. | : | C.A. No. 12-1264-LPS |
| | : | |
| DOW CHEMICAL COMPANY, | : | |
| | : | |
| Defendant. | : | |
| | : | |
| | : | |

---

**ORDER**

At Wilmington this 26th day of January, 2015:

For the reasons set forth in the Memorandum Opinion issued this date, IT IS HEREBY ORDERED that the disputed claim language of U.S. Patent No. 6,767,956 ("the '956 Patent") shall be construed as follows:

A. **"vessel," "collection vessel,"** and **"pressurized collection vessel,"** which appear in all of the claims, is construed to mean: "Tubing, piping, or other container where a desired material accumulates, which is maintained above atmospheric pressure."

B. **"maintaining the pressure above atmospheric for the extruder with a pressurized collection vessel,"** which appears in all of the claims, is construed to mean, "Maintaining the pressure at the outlet of the extruder at above atmospheric pressure."

C. **"the outlet and pressurized collection vessel at a pressure above atmospheric so that the aqueous medium does not boil,"** which appears in all of the claims, is construed to mean, "The outlet and pressurized collection vessel are kept above atmospheric pressure so that

the aqueous medium does not boil, but need not be kept at the same pressure."

D. **"viscosity below 10 Pa.s,"** which appears in all of the claims, is construed to mean, "viscosity below 10 Pa.s at room temperature."

E. **"aqueous medium,"** which appears in all of the claims, is construed to mean, "The aqueous medium is one that comprises largely water. There can be up to 40% by weight of water miscible organic solvents present in the aqueous medium."

F. **"the polymer is dispersed in an aqueous medium in an extruder at above 100°C,"** which appears in all of the claims, is construed to mean, "In an extruder, the polymer is dispersed in an aqueous medium at a temperature above 100°C."

G. **"process . . . carried out at a temperature of from 5 to 150°C above the melting point of the polymer,"** which appears in claim 2, 3, 4, 5, and 6, is construed to mean, "The elevated temperature phases of claim 1 are carried out at a temperature of from 5 to 150°C above the melting point of the polymer."

IT IS FURTHER ORDERED that Defendant's Motion for Summary Judgment of Noninfringement (D.I. 60) is GRANTED.

The parties shall meet and confer and, no later than January 29, 2015, provide the Court with a joint status report, including their proposal(s) for how this case should proceed and any proposed order the Court should enter.

UNITED STATES DISTRICT JUDGE