

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

VIRCO MFG. CORP.,)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 20-906-LPS-CJB
)	
SSI LIQUIDATING, INC. and SCHOOL)	
SPECIALTY, LLC,)	
)	
Defendants.)	

REPORT AND RECOMMENDATION

In this patent action filed by Plaintiff Virco Mfg. Corporation (“Virco” or “Plaintiff”) against Defendants SSI Liquidating, Inc. and School Specialty, LLC (“School Specialty” or “Defendants”), Virco alleges infringement of United States Patent Nos. 7,147,284 (the “284 patent”) and 10,537,180 (the “180 patent” and collectively with the '284 patent, “the asserted patents” or the “patents-in-suit”). Presently before the Court is the matter of claim construction. (D.I. 67; D.I. 70) The Court recommends that the District Court adopt the constructions set forth below.

I. BACKGROUND

Virco commenced this action on July 2, 2020. (D.I. 1) The case was thereafter referred to the Court by then-District Judge Leonard P. Stark to hear and resolve all pretrial matters through the case-dispositive motion deadline. (D.I. 16)

Virco alleges that School Specialty’s furniture products infringe claims 1-2, 6-8 and 12-18 of the '284 patent and claims 1-6, 8 and 10-13 of the '180 patent. (D.I. 110 at ¶¶ 15-16; D.I. 65 at 1) The '284 patent is entitled “Student Desk Chair With Rockers Rails” and it issued on December 12, 2006. (D.I. 69, ex. 2) The '284 patent generally covers cantilevered rocking chairs. (*Id.* at Abstract; D.I. 65 at 1) The '180 patent is entitled “Low Profile Rocking Chair”

and it issued on January 21, 2020. (D.I. 69, ex. 1)¹ The '180 patent generally covers floor rocking chairs. (*Id.*, col. 1:15-18; D.I. 65 at 2) Further details regarding the asserted patents will be provided below in Section III.

On October 1, 2021, the parties filed their joint claim construction brief. (D.I. 65) The Court conducted a *Markman* hearing by videoconference on November 10, 2021. (D.I. 81 (hereinafter, “Tr.”))

II. STANDARD OF REVIEW

It is well-understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using, or selling the protected invention.” *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). Claim construction is generally a question of law, although subsidiary fact finding is sometimes necessary. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 326-27 (2015).

The Court should typically assign claim terms their “ordinary and customary meaning[,]” which is “the meaning that the term[s] would have to a person of ordinary skill in the art [‘POSITA’] in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (internal quotation marks and citations omitted). However, when determining the ordinary meaning of claim terms, the Court should not extract and isolate those terms from the context of the patent; rather, it should endeavor to reflect their “meaning to the ordinary artisan after reading the entire

¹ The asserted patents appear on the docket in this action more than once. Citations to the patents hereafter will simply be to the “284 patent” and “180 patent.”

patent.” *Id.* at 1321; *see also Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1320 (Fed. Cir. 2016).

In proceeding with claim construction, the Court should look first and foremost to the language of the claims themselves, because “[i]t 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*, 415 F.3d at 1312 (internal quotation marks and citations omitted). For example, the context in which a term is used in a claim may be “highly instructive.” *Id.* at 1314. In addition, “[o]ther claims of the patent in question, both asserted and unasserted, can . . . be valuable” in discerning the meaning of a particular claim term. *Id.* This is “[b]ecause claim terms are normally used consistently throughout the patent, [and so] the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Id.* Moreover, “[d]ifferences among claims can also be a useful guide[.]” as when “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.

In addition to the words of the claims, the Court should look to other intrinsic evidence. For example, the Court should analyze the patent specification, which “may reveal a special definition given to a claim term . . . that differs from the meaning [that term] would otherwise possess” or may reveal an intentional disclaimer of claim scope. *Id.* at 1316. Even if the specification does not contain such revelations, it “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Id.* at 1315 (internal quotation marks and citation omitted). That said, however, the specification “is not a substitute for, nor can it be used to rewrite, the chosen claim language.” *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). And

a court should also consider the patent’s prosecution history, if it is in evidence, because it “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[.]” *Phillips*, 415 F.3d at 1317.

Extrinsic evidence, “including expert and inventor testimony, dictionaries, and learned treatises[.]” can also “shed useful light on the relevant art[.]” *Id.* (internal quotation marks and citations omitted). Overall, while extrinsic evidence may be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Id.* (internal quotation marks and citations omitted); *accord Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 981 (Fed. Cir. 1995).

In utilizing these resources during claim construction, courts should keep in mind that “[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).

III. DISCUSSION

The parties set out four disputed terms for the Court’s review. The Court takes up the terms in the order in which they were argued.

A. “side support”

The first disputed term, “side support[.]” appears, *inter alia*, in claims 1 and 13 of the '284 patent. Exemplary claim 1 recites:

1. A rocking chair comprising:
 - (a) a seating surface having a right side, a left side, a forward portion, and a rearward portion, the seating surface being adapted to support a user thereon;
 - (b) a backrest disposed above the seating surface;

(c) a forward flexing support carriage disposed below the seating surface and adapted to support the seating surface above a floor, the support carriage comprising:

- (i) a left side rocker rail having a forward portion and a rearward portion;
- (ii) an opposed right side rocker rail having a forward portion and a rearward portion;
- (iii) a left *side support* extending downward from the rearward portion of the left side of the seating surface to the rearward portion of the left side rocker rail; and
- (iv) a right *side support* extending downward from the rearward portion of the right side of the seating surface to the rearward portion of the right side rocker rail,

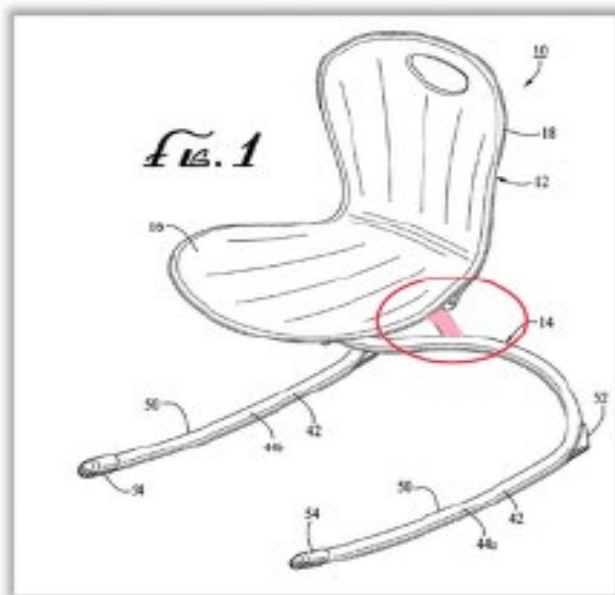
wherein both rocker rails are disposed generally parallel to a longitudinal axis of the seating surface, and wherein the seating surface is cantilevered by the left side support and the right side support of the support carriage, the support carriage providing forward flexure of the rocking chair and allowing the seating surface to tip forwardly.

(’284 patent, col. 5:6-31 (emphasis added)) The parties’ competing proposed constructions for “side support” are set out in the chart below:

Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“side support” (“left side support”; “right side support”)	Plain and ordinary meaning; no claim construction is necessary. In the alternative, the plain and ordinary meaning of “left side support” and “right side support” could respectively be articulated as “a portion of the support carriage on the left side of the chair” and “a portion of the support carriage on the right side of the chair”	“additional tubular support strut, separate from the rocker rails or legs”

(D.I. 65 at 19-20) The parties’ dispute with respect to this term is whether the left and right side supports must include a strut like that depicted in the circle below (as School Specialty argues),

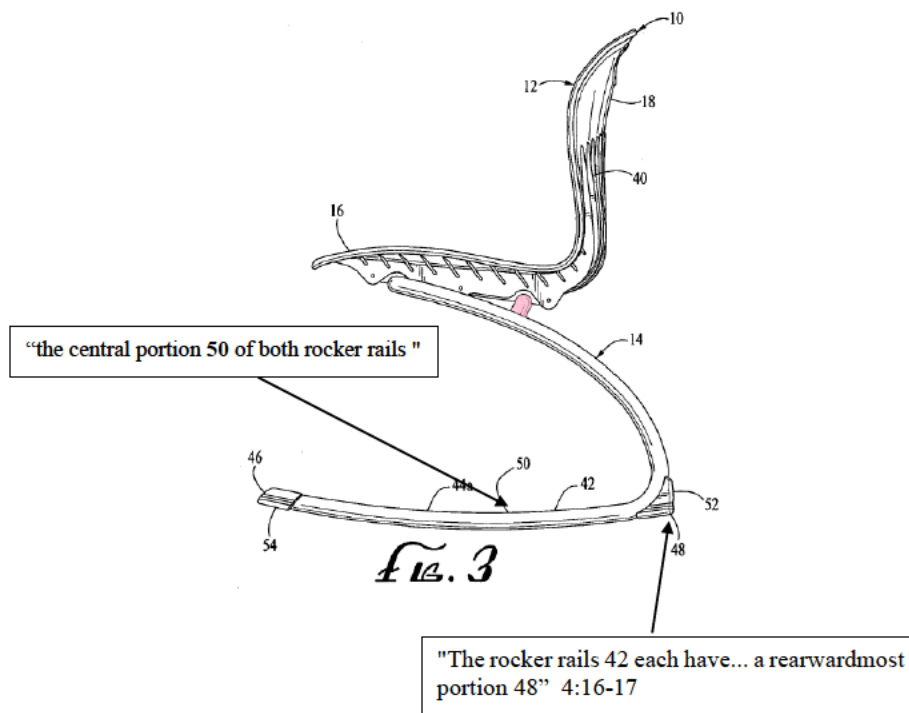
('284 patent, FIG. 1 (annotated)), or whether (as Virco contends) the side supports need not include that kind of strut structure, (D.I. 65 at 21, 24; Tr. at 14, 28).



For the following reasons, the Court concludes that the plain and ordinary meaning of “side support” does not align with School Specialty’s proposed construction.

The Court first looks to the claim language, which is helpful to understanding more about the left and right side supports. School Specialty’s briefing at first suggested that *only* the type of strut structure circled above amounts to a side support. (D.I. 65 at 24-25) However, as Virco rightly retorted, this cannot be true, in light of the plain language of the claims. (*Id.* at 27-28) The claim language tells us that the left and right side supports are components of the support carriage, which is below the seating surface and serves to support the seating surface above the floor. ('284 patent, col. 5:11-24) In addition to the side supports, the support carriage is also comprised of a left side rocker rail and a right side rocker rail, both having a forward portion and a rearward portion. (*Id.*, col. 5:13-16) And importantly, the claims also tell us that the side supports extend downward from the rearward portion of the left/right side of the seating surface, to the rearward portion of the left/right side rocker rail. (*Id.*, col. 5:17-24) We know from the

claims and the specification that the rocker rails are the structures extending along the bottom of the chair, with no. 46 in the figure below representing the “forwardmost portion” of the rocker rails, no. 50 representing the “central portion” and no. 48 representing the “rearwardmost portion[.]” (*Id.*, col. 4:16-18; *see also id.*, col. 5:26-27 (claim 1 reciting that “both rocker rails are disposed generally parallel to a longitudinal axis of the seating surface”))



(*Id.*, FIG. 3 (annotated)) Thus, the patent makes clear that the strut *alone* cannot constitute the claimed side supports, because the strut depicted in the patent’s figures does not extend downward *to the rearward portion of the left/right side rocker rail*. (D.I. 65 at 27-28; Tr. at 12) Indeed, School Specialty ultimately acknowledged that the side support could include more than just the strut structure—but it continues to maintain that the side support has to include the strut as a “necessary part [thereof.]” (D.I. 65 at 32-33 & n.1; *see also* Tr. at 28)

Having set out what the claimed side supports are (and why they cannot simply amount to a strut structure alone), the Court next turns to the key question: Does the intrinsic evidence

dictate that the strut structure must be a required component of the side supports? In asserting that it does, School Specialty makes two arguments, but neither are persuasive.

First, School Specialty points out that all of the '284 patent's figures depict such additional support struts. (D.I. 65 at 24, 32; Tr. at 24, 26, 42, 48) That may be so, but nevertheless, these figures cannot do the work that School Specialty asks of them. (D.I. 65 at 26-27; Tr. at 14-15, 45-46) It is a bedrock principle of claim construction that courts may not limit a patent claim to what is depicted in a patent's figures, unless the patentee has clearly demonstrated an intent to limit the claim scope. *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1254 (Fed. Cir. 2011) (“While the drawings of the adaptor consistently depict an incomplete circle, drawings in a patent need not illustrate the full scope of the invention.”); *MBO Lab 'ys, Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007) (“The patent figures all depict the flange connected mainly to the outside, but patent coverage is not necessarily limited to inventions that look like the ones in the figures [and] [t]o hold otherwise would be to import limitations onto the claim from the specification, which is fraught with ‘danger.’”) (citations omitted). The '284 patent surely does not reflect any such intent on the part of the patentee. Indeed, as School Specialty acknowledges, the specification does not even reference a “strut,” nor is the strut structure at issue here separately numbered or otherwise identified in the patent. (See D.I. 65 at 26, 32) On the other hand, the specification underscores that the single embodiment depicted in the patent is not limiting. ('284 patent, col. 2:37-42 (“This discussion should not be construed, however, as limiting the invention to those particular embodiments. Practitioners skilled in the art will recognize numerous other embodiments as well.”); see also *id.*, col. 5:1-4) Therefore, the mere fact that certain figures of the patent depict a strut does not warrant limiting the claims to *require* the strut as a necessary

component of the claimed side supports. *See, e.g., DuraSys. Barriers Inc. v. Van-Packer Co.*, Consolidated Case No. 1:19-cv-01388-SLD-JEH, 2021 WL 4037826, at *22 (C.D. Ill. Sept. 3, 2021).

Second, School Specialty contends that Virco had to add the side support struts in order to obtain the '284 patent—and that the side support limitations must therefore be construed to require the strut structure. (D.I. 65 at 24-25, 32) Yet the prosecution history simply does not bear this out. The original claims were rejected by the Examiner as being unpatentable over three prior art references (referred to as “Bosman,” “Edelson” and “Gillern”). (*See, e.g.*, D.I. 69, ex. 11 at 2-3; *id.*, ex. 13 at 2-3) The patentee ultimately amended its claims to add limitations including: (1) the “forward flexing support carriage[;]” (2) the left and right side supports; and (3) a clarification that the seating surface of the chair is “cantilevered by the left side support and the right side support of the support carriage” with the support carriage “providing forward flexure of the rocking chair and allowing the seating surface to tip forwardly.” (*Id.*, ex. 15 at 2-5) One of the inventors, Robert J. Mills, also submitted a declaration (the “Mills Declaration”) in which he touted the benefits of the claimed reverse cantilevered design for a rocking chair (which chiefly flow from the ability of the chair’s seat to tilt forward and downward—as opposed to a traditional cantilevered rocking chair, which tilts backward and upward). (*Id.*, ex. 8 at 6-11) The Mills Declaration included some drawings depicting differences between a reverse cantilevered design and a traditional cantilevered design. (*Id.* at 29-31) Importantly, these drawings *did not depict a strut structure like that circled above.* (*Id.*; *see also* Tr. at 19) Ultimately, in allowing the amended claims, the Examiner stressed the importance of the “forward flexure” feature of the amended claims. (D.I. 69, ex. 15 at 6; *see also* Tr. at 41-42) And yet nowhere in the prosecution history is there a suggestion that the side supports absolutely

require an “[a]dditional tubular support strut” in order to promote forward flexure. (D.I. 65 at 11, 21, 28-29; Tr. at 20-21, 46; *see also id.* at 42 (Defendants’ counsel conceding that the current record does not support the conclusion that a strut is required in order for the claimed chair to promote forward flexure, and suggesting that whether this was so might be “a matter of expert testimony”)) Indeed, at the *Markman* hearing, School Specialty was forced to acknowledge that the prosecution history did not “explicitly spell out” that the additional strut is a requirement of the claimed side supports. (Tr. at 32-33)²

In sum, School Specialty is seeking the narrower, more limiting construction for “side support.” But neither of its primary arguments are persuasive. Thus, the Court cannot import School Specialty’s suggested limitation into its construction.

As for Virco’s proposed alternative construction, it is not very helpful. As discussed above, the claims plainly tell us that the side supports are components/portions of the support carriage, and that they extend downward from the side of the seating surface to the rearward portion of the rocker rails. In light of this, the “side support” term would be easily understood by jurors; there is no need for the Court to add any further gloss.

² In the end, School Specialty’s argument seemed to be motivated by its assertion that the claims of the '284 patent are directed to an invention that is very similar in appearance to the invention claimed in the Bosman reference (aside from the strut structure depicted in certain figures of the '284 patent). (D.I. 65 at 32, 33 (“[T]he inclusion of the separate support strut in the construction of this term is a critical limitation[] if the ['284] patent has any chance of surviving a validity challenge over prior art.”); Tr. at 38-39 (referencing Bosman)) However, even assuming that the Bosman reference really is similar in appearance to the claimed invention (and the Court is not so sure that it is), (*see* Tr. at 23), the intrinsic record simply does not make it clear that the patentee intended to narrow the meaning of “side support” by requiring that it include a separate strut structure. The look of the Bosman reference is simply not a reason to import the strut limitation into the claims. *See, e.g., Audionics Sys., Inc. v. AAMP of Fl., Inc.*, No. CV 12-10763 MMM (JEMx), 2013 WL 9602634, at *25 (C.D. Cal. Sept. 12, 2013).

Having resolved the parties' dispute with respect to this term, and being unpersuaded that either of the parties' proposed constructions are helpful at this stage, for now the Court recommends that "side support" simply be afforded its plain and ordinary meaning.

B. "resilient layer"

The next disputed term, "resilient layer" appears, *inter alia*, in claims 1, 2, 3, 10 and 12 of the '180 patent. Exemplary claim 1 recites:

1. A chair comprising:
a seat component comprising a seat portion with a bottom surface and a back support portion, the seat portion and the back support portion comprising a uniform body;
a bottom support component formed having a monolithic platform structure, the monolithic platform structure comprising:
a rigid layer, the rigid layer comprising a rocking section, a flat section, and a transitional section, the rocking section having a defined curvature and extending between a front end of the bottom support component and the transitional section, the flat section having a substantially flat portion extending between a back end of the bottom support component and the transitional section; and
a *resilient layer* covering at least a portion of the rigid layer, the *resilient layer* formed from a compressible material; and
an intermediate support component joined to the seat component and comprising at least one support member, the at least one support member configured to interconnect the intermediate support with the seat component and the bottom support;
wherein the chair is configured to be selectively movable between a rocking position and a stop position, in the rocking position the chair is movable along the defined curvature of the rocking section, in the stop position the chair is configured to limit movement of the chair to the stop position, wherein the chair transitions between the rocking position and stop position by rotating past the transitional section of the bottom support.

('180 patent, cols. 12:39-13:2 (emphasis added)) The parties' competing proposed constructions for "resilient layer" are set out in the chart below:

Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“resilient layer”	<p>Plain and ordinary meaning; no claim construction necessary.</p> <p>In the alternative, the plain and ordinary meaning of “resilient layer” could be articulated as “a layer capable of substantially recovering original shape after deformation”</p>	“non-rigid layer that springs back”

(D.I. 65 at 34) It is undisputed that the “springs back” portion of School Specialty’s proposal would require that the material return to its original shape fairly quickly. (*Id.* at 35, 40; Tr. at 49, 57, 59-60; *see also* D.I. 66 at Osswald Declaration at ¶ 32) And this is the parties’ primary dispute: whether the term requires a layer that “springs back” quickly (as School Specialty argues), or whether adopting such a construction would improperly import a limitation into the claims (as Virco asserts). (D.I. 65 at 39-40; Tr. at 51, 56)³

³ In its opening brief, Virco additionally contested the “non-rigid” portion of School Specialty’s proposal. On that front, Virco asserted that the ordinary meaning of “resilient” does not require the layer to be “non-rigid” and argued that nothing in the intrinsic record indicates an intent to limit the scope of “resilient” in this manner. (D.I. 65 at 35-36) In support of this portion of its construction, School Specialty asserts that the specification describes the resilient layer in contrast to the rigid layer, by noting that “[t]he resilient layer **142 can be formed from a non-rigid compressible material**, such as an open or closed cell foam material, neoprene, or other types of compressible materials.” (*Id.* at 36-37 (quoting '180 patent, col. 6:55-58) (emphasis added)) While Virco did not respond to this particular “non-rigid” dispute in the reply portion of its brief, (*see* D.I. 65 at 38-40), during the *Markman* hearing, Virco’s counsel reiterated Virco’s view that the specification does not dictate that the resilient layer *has* to be non-rigid—instead it only allows that it *can* be, (Tr. at 51-52 (providing examples of how materials can be rigid, but also “resilient”); *see also id.* at 64-65).

The Court agrees with Virco here. School Specialty does not point to anything that requires the resilient layer to be non-rigid (or that suggests that the ordinary meaning of resilient is something that is non-rigid). Indeed, the specification later explains that “[c]onditional language used herein, such as . . . ‘can[.]’ . . . is generally intended to convey that certain embodiments include, while other embodiments do not include, certain features, elements and/or

For the reasons discussed below, the Court again agrees with Virco. The evidence cited by School Specialty in support of its “springs back” position is simply not persuasive.

School Specialty starts by pointing to the intrinsic record—it argues that the specification dictates that the resilient layer must spring back, in the sense that the specification “provides no disclosure of any material that does not spring back, or [that] does so slowly.” (D.I. 65 at 40) But the reality is that the concept of “springing back” is simply not explicitly referenced in the specification one way or the other. (Nor is it so referenced in the prosecution history.). (*Id.* at 35-36) And School Specialty certainly does not point to any portion of the specification that disparages slightly-less-than-“springy” material, either.

If anything, the specification affirmatively helps Virco’s case here. (*Id.* at 38-39; Tr. at 50, 52-53) To that end, the specification identifies a gel-filled bladder as one type of material that could form the resilient layer. (’180 patent, col. 7:7-10) Virco’s expert, Dr. Richard W. Klopp, in turn opined that a POSITA would “readily understand that a gel-filled bladder would exhibit viscous deformation behavior that is not appropriately described as ‘springy.’” (D.I. 66 at Klopp Declaration at ¶ 23)⁴ So when it comes to the intrinsic record, Virco has the better argument.

states. Thus, such conditional language is not generally intended to imply that features, elements, and/or states are in any way required for one or more embodiments or that one or more embodiments necessarily include these features, elements, and/or states.” (’180 patent, cols. 9:66-10:9); *see, e.g., Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1137 (Fed. Cir. 2011) (describing a portion of the specification that set out “[s]ome of the features that *can* be included in the *present invention*” as referencing features that are “*optional*”) (emphasis in original).

⁴ Dr. Klopp also points out that the specification teaches that the resilient layer could be formed from “an open or closed cell foam material[.]” (D.I. 66 at Klopp Declaration at ¶ 24 (quoting ’180 patent, col. 6:55-57)) From there, Dr. Klopp opines that memory foam is such a material, and that a POSITA would not view memory foam as a material that “springs back” (even though its shape does ultimately recover after indentation), citing in support to an article

The remainder of School Specialty’s support for its “springs back” proposal consists of extrinsic evidence. (D.I. 65 at 37; Tr. at 61) None of that evidence is convincing either.

For example, School Specialty’s expert Dr. Tim A. Osswald opined that “the concept of springing back would be included in the understanding a [POSITA] would have of the term ‘resilient.’” (D.I. 66 at Osswald Declaration at ¶ 32) Yet this statement was entirely conclusory: Dr. Osswald does not explain why it is so, and he cites to nothing in support of his position. (*See id.* at Klopp Declaration at ¶ 24) School Specialty next points to *Tech-ni-Fold Ltd. v. F.P. Rosback Co.*, No. 14 C 5737, 2015 WL 5730105 (N.D. Ill. Sept. 29, 2015)—a case in which a court stated that “[r]esilient’ is a commonly used word that the dictionary defines as able to recoil or spring back into shape after bending, stretching, or being compressed.” (D.I. 65 at 37 (quoting *Tech-ni-Fold Ltd.*, 2015 WL 5730105, at *6) (emphasis omitted)) Yet in that case, the United States District Court for the Northern District of Illinois ended up simply construing “resilient” to mean “capable of recovering original shape after deformation[,]” without including any time limitation for how quickly the material at issue must recover. *Tech-ni-Fold*, 2015 WL 5730105, at *6. And finally, School Specialty highlights certain dictionary definitions for “resilient” that reference the concept of springing back. (D.I. 65 at 37 (citing D.I. 66, ex. H))

about memory foam. (*Id.* at ¶ 25; *see also* D.I. 65 at 39; Tr. at 53) In response, School Specialty argues that the patent does not identify memory foam as a suitable material within the scope of the claims, since “[m]emory foam is particularly slow to spring back and thus would be an illogical design choice for the bottom of a chair[.]” (D.I. 65 at 40) But School Specialty cites to nothing in support of this “illogical design choice” argument.

School Specialty also complains that the citation to the above-referenced article in Dr. Klopp’s declaration is to an inaccessible site, or is otherwise incorrect. (*Id.* at 40 n.3 (citing D.I. 66 at Klopp Declaration at ¶ 25)) However, the Court easily accessed the cited webpage. It contains a 2005 article describing memory foam as an “open-cell, polymeric” foam material that “matches any pressure against it and slowly returns to its original form once the pressure is removed.” *Forty-Year-Old Foam Springs Back With New Benefits*, NASA Spinoff, https://spinoff.nasa.gov/Spinoff2005/ch_6.html (last visited April 20, 2022).

Tellingly, however, these dictionary definitions do not *exclusively* define “resilient” to mean only “springing back” or to otherwise require a time limitation. (*Id.* at 39; Tr. at 53-54) For instance, the very first dictionary definition defines resilient as, *inter alia*, “[1] springing back; rebounding. [2] returning to the original form or position after being bent, compressed, or stretched.” (D.I. 66, ex. H at 1; *see also id.* at 4 (defining “resilient” with respect to a “material” as “capable of regaining its original shape or position after . . . compression” and with respect to “a person” as “recovering easily and quickly from shock”), 7) As these definitions suggest that “resilient” may—but also need not—connote the concept of “springing back,” this is further evidence of why School Specialty’s narrow proposal should be rejected. (Tr. at 61-62)

Having determined that School Specialty’s proposed construction is not on point,⁵ the Court now turns to whether Virco’s proposed alternative construction (i.e., “a layer capable of substantially recovering original shape after deformation”) should be adopted. Virco crafted this construction from other opinions where judges construed “resilient,” including the *Tech-ni-Fold* Court’s decision (discussed above) and another case where the court construed the term to mean “substantially returns to the original shape.” (D.I. 65 at 35 (quoting *Nike, Inc. v. Adidas Am. Inc.*, Civil Action No. 9:06-CV-43, 2006 WL 3751181, at *9 (E.D. Tex. Dec. 18, 2006)); Tr. at 54-55) School Specialty countered that this proposal was off base, in part because it includes the word “substantially.” In School Specialty’s view, the material must “get pretty close to full recovery, if not full recovery[.]” (Tr. at 58-59), and “substantially” does not connote that type of recovery.

⁵ The Court further notes that near the end of the discussion on this term at the *Markman* hearing, even School Specialty’s counsel seemed to back off the suggestion that a resilient layer must “spring” back. Instead, counsel suggested that the layer simply must “come back.” (Tr. at 62)

The Court is hesitant to adopt a construction for a term where the proposal is drawn entirely from claim constructions in *other* cases involving *other* patents (as opposed to a construction that is drawn primarily from the intrinsic evidence relating to the patents-in-suit in *this case*). (*See id.* at 54-55) Although Virco’s proposal might not be wrong, for now, the Court will err on the side of caution. Having resolved the parties’ key dispute with respect to this term, the Court recommends that “resilient layer” simply be afforded its plain and ordinary meaning.

C. “compressible material”

The term “compressible material” is found in independent claims 1 and 10 of the '180 patent. This term is related to the term “resilient layer,” as claim 1 requires “a resilient layer covering at least a portion of the rigid layer, the resilient layer formed from a compressible material” and claim 10 requires a “resilient layer formed from a compressible material[.]” ('180 patent, cols. 12:54-56, 14:3-4) The parties’ competing proposed constructions for “compressible material” are set out in the chart below:

Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“compressible material”	<p>Plain and ordinary meaning; no claim construction necessary.</p> <p>In the alternative, the plain and ordinary meaning of “compressible material” could be articulated as “material that can change shape as force is applied”</p>	<p>Indefinite under 35 U.S.C. § 112.</p> <p>“soft material that dampens the force applied to an object under the chair during use by the intended user”</p>

(D.I. 65 at 41) As School Specialty contends that this term is indefinite, the Court will first set out the law as to definiteness. It will then discuss the merits.

Section 112 of the Patent Act requires that a patent claim “particularly point[] out and distinctly claim[] the subject matter which the inventor or a joint inventor regards as the

invention.” 35 U.S.C. § 112(b). If it does not, the claim is indefinite and therefore invalid. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 902 (2014). The primary purpose of the definiteness requirement is to ensure that patent claims are written in such a way that they give notice to the public of what is claimed, thus enabling interested members of the public (e.g., competitors of the patent owner) to determine whether they infringe. *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779-80 (Fed. Cir. 2002). Even so, “absolute precision is unattainable” and is not required. *Nautilus*, 572 U.S. at 910. In the end, “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Id.* at 901. As long as claims satisfy the test for definiteness, “relative terms and words of degree do not render patent claims invalid.” *One-E-Way, Inc. v. Int’l Trade Comm’n*, 859 F.3d 1059, 1063 (Fed. Cir. 2017). Definiteness is to be evaluated from the perspective of a POSITA at the time the patent was filed. *Nautilus*, 572 U.S. at 908.⁶

School Specialty asserts that the '180 patent claims are invalid because the term “compressible material” is indefinite. It argues that this is so because: (1) “every material is compressible if enough force is applied”—even a substance like metal—and thus the term at issue “includes everything and fails to provide objective boundaries to those of skill in the art[;]” and (2) there are multiple ways to evaluate compressibility but the '180 patent fails to discuss

⁶ Like claim construction, definiteness is a question of law for the court. *H-W Tech., L.C. v. Overstock.com, Inc.*, 758 F.3d 1329, 1332 (Fed. Cir. 2014). The United States Court of Appeals for the Federal Circuit has stated that “[a]ny fact critical to a holding on indefiniteness . . . must be proven by the challenger by clear and convincing evidence.” *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1366 (Fed. Cir. 2003); *see also Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1338 (Fed. Cir. 2008).

them. (D.I. 65 at 44-45; *see also* Tr. at 79-81) The Court will address those two arguments in order.

School Specialty’s first argument overlooks how “compressible material” is used in context in the patent, and wrongly assesses the term in a vacuum. (D.I. 65 at 50; Tr. at 67) From the claim language, we know that it is the “resilient layer” of the bottom support component of the claimed chair that is formed from a “compressible material.” (’180 patent, cols. 12:39-56, 13:24-4:4) And the specification helpfully provides examples of compressible materials that the resilient layer can be formed from, “such as an open or closed cell foam material, neoprene . . . or other types of compressible materials. . . . [including a] bladder[] that can be filled with a gas (such as, for example, air, nitrogen, and so forth) or fluid (such as, water, a gel substance, and the like).” (*Id.*, cols. 6:55-7:10) The specification also notes that a compressible foam (or other compressible materials that could be used in the same or similar fashion) for the resilient layer provides “sufficient support and the desired movement while helping to reduce the amount of force applied to objects positioned under the chair during usage when compared to the use of at least some of the alternative structures that can be used.” (*Id.*, col. 6:60-66)

In light of these disclosures, Virco’s expert Dr. Klopp persuasively opines that the patent’s teachings would have informed the POSITA as to “a range of properties” of a compressible material—including that very hard materials such as metals would not fall within the scope of the claim term. (D.I. 66 at Klopp Declaration at ¶ 32) Indeed, even School Specialty’s expert Dr. Osswald acknowledged that: (1) the examples referenced in the specification “would teach a [POSITA] something about the desired amount of hardness of the ’180 patent claims[;]” (2) it would not “make much sense” for materials such as metal to form the resilient layer; and (3) the specification “identifies the reasons for using a compressible

material[.]” (*Id.* at Osswald Declaration at ¶¶ 35, 39-40; *see also id.* at ¶ 42; Tr. at 69)⁷ These experts’ statements underscore that the patent provides real guidance as to what materials do and do not qualify as “compressible.”

School Specialty’s second argument is that the claims are indefinite because there are many ways to evaluate the compressibility of a material (such as taking a Shore A hardness measurement), but the patent does not discuss any of them. (D.I. 65 at 45, 58 (“When a [POSITA] cannot consistently measure the scope of a claim, it is indefinite.”); Tr. at 81-82) The Court is not convinced that this renders the claims indefinite. After all, these claims do not require absolute numerical precision; they do not mandate that the compressibility of the material must be above or below a particular numerical figure, nor even that it fall within a specific range of values. And so the fact that there might be different ways that one can measure a material’s compressibility does not necessarily mean that the term at issue is indefinite. (Tr. at 99); *see also, e.g., Finalrod IP, LLC v. Endurance Lift Sols., Inc.*, Case No. 2:20-cv-00189-JRG-RSP, 2021 WL 2187980, at *12-13 (E.D. Tex. May 28, 2021) (rejecting the defendant’s argument that a limitation directed to “compressive force” was indefinite because it failed to teach any particular method for measuring and comparing such force, because the claim “does not require

⁷ The real problem in School Specialty’s view seems to be that Dr. Klopp “doesn’t know, or doesn’t have an opinion anyway, whether the actual material [used in the accused products, i.e., thermoplastic elastomer] is inside or outside the scope of the claim.” (Tr. at 78; D.I. 65 at 56-57) That criticism misses the mark. Dr. Klopp did not opine one way or the other as to whether a thermoplastic elastomer is within the scope of the claims, nor would he be expected to. His declaration was submitted at the claim construction stage of the case, and is not meant to be an infringement opinion. (D.I. 66 at Klopp Declaration at ¶ 4; *see also* Tr. at 70 (Virco’s counsel noting that “[w]e didn’t ask our expert” whether thermoplastic elastomer would be a compressible material, and contending that a POSITA would know whether a given material is comparable to the examples referenced in the patent))

the measurement of a specific value for the compressive force” and the specification taught how to compare the compressive forces).

In sum, Defendants have not demonstrated by clear and convincing evidence that the claims are indefinite in light of their inclusion of the term “compressible material.” *See, e.g., Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, — F.4th — , 2022 WL 1072909, at *7 (Fed. Cir. Apr. 11, 2022) (reversing a district court’s conclusion that claims directed to “resilient” and “pliable” catheters were indefinite, where the claim language and the specification provided guidance regarding what the terms meant, including a description of exemplary materials and the purpose of such materials, such that the claim terms were not “purely subjective terms . . . [that would] result[] in a variable claim scope depending on the particular eye of any one observer”); *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1379 (Fed. Cir. 2017) (holding that the claim term “visually negligible” was not indefinite, where the written description provided a general exemplary design for a visually-negligible indicator, requirements for the graphical indicators being negligible to human eyes and two specific examples of visually-negligible indicators—all of which allowed the skilled artisan to compare the examples and criteria from the written description and determine whether an indicator is visually negligible); *CFL Techs. LLC v. Osram Sylvania, Inc.*, Civil Action No. 18-1445-RGA, 2022 WL 606329, at *14 (D. Del. Jan. 21, 2022) (rejecting the defendant’s argument that “distinctly shorter” was indefinite, where the specification provided at least two examples allowing for objective boundaries that a POSITA could use to determine the scope of the term).⁸

⁸ The original reply brief that Virco served on School Specialty cited an outdated legal standard for indefiniteness. (*See* D.I. 65 at 54; Tr. at 77, 97) Virco subsequently provided revised language citing the current legal standard, which appears in the parties’ joint claim construction brief that was submitted to the Court. (D.I. 65 at 49, 54-55) School Specialty

That leaves the question: What is the proper construction for “compressible layer”? The Court agrees with Virco that School Specialty’s proposal improperly imports two extraneous limitations into the claims: that the material be “soft” and that it “dampen[] the force applied to an object under the chair during use by the intended user.” (D.I. 65 at 41-42)

In support of its “soft” proposal, School Specialty points first to its expert’s declaration. (*Id.* at 45 (citing D.I. 66 at Osswald Declaration at ¶¶ 39-43, 51-52)) Dr. Osswald opines that the inventors specifically identified exemplary compressible types of foam “because there are rigid foams that are stiff and brittle . . . which would not be considered compressible” and that the POSITA “would at least understand that the inventors intended ‘compressible layer’ to mean a soft material such as a soft open or closed cell foam, and not a hard and brittle foam.” (D.I. 66 at Osswald Declaration at ¶ 42) Furthermore, Dr. Osswald states that the term “soft” in the context of the patent relates to a ““squeezeable”” material (and not to the texture of a surface). (*Id.* at ¶ 52; *see also id.* at ¶ 43; Tr. at 86)⁹

argues that Virco’s original brief demonstrates that Virco and its expert are currently using the wrong legal standard with respect to this dispute. (*Id.* at 56)

The fact that Virco’s original brief used the wrong legal standard was not great. But everybody makes mistakes, and Virco corrected its mistake here. Moreover, School Specialty does not point to any particular portion of Dr. Klopp’s declaration that demonstrates that he in fact is applying the wrong legal standard. (*Id.* at 55-56; Tr. at 78-79) And as the Court has explained, School Specialty has simply not met its burden to show that—under the appropriate *Nautilus* standard—the claims fail to inform, with reasonable certainty, a POSITA regarding the scope of “compressible material.”

⁹ Dr. Osswald explains in his declaration that a POSITA would be familiar with measuring the hardness/softness of materials with a digital Shore A durometer, and notes that such measurements can range from “extra soft” to “extra hard” on the Shore A hardness scale. (D.I. 66 at Osswald Declaration at ¶ 43) He measured certain of the accused products and one of Virco’s products; he then summarized the Shore A hardness of the materials on the bottom layer of these products. (*Id.* at ¶¶ 45-50)

School Specialty also points to the intrinsic record. For example, it notes a line in the specification that describes the “resilient layer” (which is made from compressible material) as “softer” than the “coating layer” (a layer that may cover at least a portion of the resilient layer and “can help protect the resilient layer [] from damage”). (’180 patent, col. 7:27-34 (*cited in* Tr. at 89)) School Specialty additionally asserts that the prosecution history dictates that the term “compressible material” cannot cover “hard” materials. (D.I. 65 at 47-48) To that end, according to School Specialty, the patentee added the limitation “the resilient layer is formed from a compressible material” in order to overcome prior art that disclosed a rocking chair with a return mechanism (i.e., U.S. Patent No. 1,317,518, hereinafter “Kanode”). (*Id.* at 8-9, 47-48; D.I. 69, ex. 3 at 10; D.I. 69, ex. 4 at 3) School Specialty’s expert completes this argument by opining that the Kanode patent disclosed a plate with a coil spring on the bottom of the rocker that would have been made up of only “hard” materials—and so the patentee’s amendment must have served to limit the scope of the claimed “compressible material” to “soft” material. (D.I. 65 at 47-48 (citing D.I. 66 at Osswald Declaration at ¶ 41))

Yet none of these arguments persuade the Court that the plain meaning of the term “compressible,” in the context of the ’180 patent, requires that it be “soft.” (*Id.* at 43, 52; Tr. at 74-75) As an initial matter, Dr. Osswald’s opinion is not grounded in the intrinsic record. Additionally, although the specification does refer to the resilient layer as being “softer” than the coating layer, it never once describes the resilient layer itself as “soft,” nor does it ever refer to the Shore A hardness scale. (D.I. 65 at 52; D.I. 66 at Klopp Declaration at ¶¶ 33-36) Lastly, with respect to the prosecution history, as Virco points out, (D.I. 65 at 53), certain claims were rejected on the basis that “Kanode teaches the concept of a bottom support component comprising a resilient layer 12, 17 covering at least a portion of the rigid layer, *the resilient layer*

formed from a compressible material[,]” (D.I. 69, ex. 3 at 10 (emphasis added)).¹⁰ But it appears that the patentee overcame this rejection by asserting that *other* prior art references utilized by the Examiner (i.e., “Gottfried,” “Kjersem,” “Sheehan” and “Morrow”) did not teach the limitations of the amended claims; in allowing the claims, the Examiner did not mention Kanode, which the Examiner seemed to view as having a resilient layer made of a compressible material. (*Id.*, ex. 4 at 6-7) In the end, School Specialty points to nothing in the prosecution history characterizing any elements in the prior art or the invention claimed in the '180 patent as “hard” or “soft.” For all of these reasons, the Court is not convinced that the prosecution history requires that a “soft” limitation be imported into the term “compressible material.”¹¹

The Court next turns to School Specialty’s proposal that “compressible material” must be required to “dampen[] the force applied to an object under the chair during use by the intended user.” This language is derived from the specification’s teaching that the use of foam (or other compressible materials) “can provide a desired amount of compressibility, which can soften or dampen the force applied to an object positioned under the bottom support **106** during usage of the chair.” (’180 patent, cols. 6:66-7:3; *see also id.*, col. 6:61-66 (explaining that foam can

¹⁰ Virco asserts that the language “layer formed from a compressible material” was present in the original March 3, 2018 set of claims submitted to the United States Patent and Trademark Office (“PTO”), but only in dependent claims. (D.I. 65 at 53) It does not cite to anything in support of this assertion, and it does not appear that the content of those dependent claims are in the record before the Court. From what the Court can tell, though, that language may have been in dependent claims 2 and 13. (*See* D.I. 69, ex. 3 at 9-10 (PTO rejecting claims 2-3 and 13 in view of Kanode et al. because Kanode teaches, *inter alia*, “the resilient layer formed from a compressible material”); *id.*, ex. 4 at 3-4 (showing dependent claims 2 and 13 as cancelled but not showing the language of those claims))

¹¹ At one point in its briefing, School Specialty asserted that it is undisputed that a “compressible material” would be soft. (D.I. 65 at 58) But that issue *is* disputed here. During the *Markman* hearing, Virco pointed to the example of a football as being made up of a material that is compressible but not soft. (Tr. at 74)

provide sufficient support and desired movement, while “helping to reduce the amount of force applied to objects positioned under the chair during usage”); *see also* D.I. 65 at 47, 59) So surely a “compressible material” *can* dampen force in this way. But the Court is not persuaded that it should construe the term to *require* this result in all instances. In the above-cited portion of the specification, the patentee is describing a specific embodiment. And again, the use of “can” in this part of the specification signals that the patentee was not intending to limit the claims to that embodiment. (D.I. 65 at 51-52) As Virco points out, a very young child could be sitting on the chair and, in that case, the child might not weigh enough such that the chair’s compressible material would actually serve to “dampen[] the force applied to an object under the chair[.]” (Tr. at 73-74)

The Court now turns finally to Virco’s proposed alternative construction (i.e., “material that can change shape as force is applied”). School Specialty contends that this language is too broad because it would include “every material” since “every material can change shape if enough force is applied.” (D.I. 65 at 59) That seems to be a reasonable critique. Thus, the Court will not recommend that Virco’s proposed language be adopted. (D.I. 66 at Osswald Declaration at ¶ 35; *id.* at Klopp Declaration at ¶ 29)

That said, a construction for “compressible material” does seem like it could be helpful to the jury. (D.I. 65 at 41, 59) It seems undisputed that “compressible material” must allow for “local indentation of an object into the layer[.]” (D.I. 66 at Klopp Declaration at ¶ 37; D.I. 65 at 53, 59) It is also undisputed that the patent provides examples of types of compressible materials that could be used. (D.I. 66 at Osswald Declaration at ¶ 39; *id.* at Klopp Declaration at ¶¶ 31-32) Thus, the Court recommends that the term “compressible material” be construed to mean “material that allows for local indentation of an object into the material, such as an open or

closed cell foam material, neoprene, a bladder filled with gas or fluid, or materials similar thereto.” (See Tr. at 71-72)

D. “stop position”

The final term “stop position” appears in claims 1 and 10 of the '180 patent. The specification also refers to the stop position as a “flat position” or “float position.” ('180 patent, col. 7:47-48) The patent explains that the bottom support of the chair “is configured to provide controlled movement between a rocking position and a flat position[,]” and that this bottom support in turn consists of a rocker portion, a transitional portion and a flat portion. (*Id.*, cols. 7:46-51, 12:43-56) The flat portion is positioned in the rear of the bottom support and can be substantially flat. (*Id.*, col. 8:4-6)

The parties’ competing proposed constructions for “stop position” are set out in the chart below:

Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“stop position”	<p>Plain and ordinary meaning; no claim construction necessary.</p> <p>In the alternative, the plain and ordinary meaning of “stop position” could be articulated as “position configured to stabilize the movement of the chair”</p>	“a resting position that can be maintained without actively using one’s legs”

(D.I. 65 at 59) The crux of the dispute between the parties appears to be whether the “stop position” is one where the chair is resting on its flat portion in a manner such that “it requires that [a user] can maintain it without using [her] legs” (as School Specialty suggests), or whether a “stop position” is one where a user “might not be able to maintain it without actively using [her] legs” (as Virco suggests). (Tr. at 112) Here, the Court agrees with Virco.

In support of its position, School Specialty points to a portion of the specification that explains:

A person can remain in the float position and rest on the flat portion **142** of the bottom portion with minimal effort. . . . Additionally, the flat portion **142** functions to maintain the position of the person in place. In some configurations, the chair can rest on the flat portion with a person sitting without the person holding the chair in position with his legs. Preferably, when in the float position, the person actively rocks the chair forward in order to transition from the float position to the rocking position.

(180 patent, col. 8:19-31 (*cited in* D.I. 65 at 61)) The specification clearly tells us that “[i]n *some configurations*,” the stop position will be a resting position that can be maintained without active use of one’s legs. It does not say “in all configurations.” (D.I. 65 at 62) And the specification makes clear that a person can remain in the float position and rest on the flat portion “with minimal effort”; this would certainly seem to allow for the possibility that a claimed embodiment could require a bit of effort from the user’s legs in order to maintain the stop position. (Tr. at 102, 104) In short, School Specialty points to nothing that would support limiting “stop position” to a position that can be maintained without actively using one’s legs. *See, e.g., Odyssey Wireless, Inc. v. Apple Inc.*, CASE NOS. 15-CV-1735-H (RBB), 2016 WL 3055900, at *4 (S.D. Cal. Mar. 30, 2016) (rejecting the defendant’s limiting construction where the specification uses permissive rather than mandatory language such as “‘in some embodiments’”) (citation omitted).

That said, the Court agrees with School Specialty that a jury may benefit from some further explanation of what is a “stop position.” (D.I. 65 at 63) The specification explains that “[t]he flat portion [] functions as a stop to stabilize movement and limit further backward and forward rocking movement of the chair [] when in a float position[.]” (180 patent, col. 8:8-11) Virco’s proposed construction reflects this teaching. (D.I. 65 at 60) Therefore, the Court

recommends that “stop position” be construed to mean “position configured to stabilize the movement of the chair.”

IV. CONCLUSION

For the foregoing reasons, the Court recommends that the District Court adopt the following constructions:

1. “side support” should be afforded its plain and ordinary meaning
2. “resilient layer” should be afforded its plain and ordinary meaning
3. “compressible material” should be construed to mean “material that allows for local indentation of an object into the material, such as an open or closed cell foam material, neoprene, a bladder filled with gas or fluid, or materials similar thereto”
4. “stop position” should be construed to mean “position configured to stabilize the movement of the chair”

This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), Fed. R. Civ. P. 72(b)(1), and D. Del. LR 72.1. The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Report and Recommendation. Fed. R. Civ. P. 72(b)(2). The failure of a party to object to legal conclusions may result in the loss of the right to de novo review in the district court. *See Sincavage v. Barnhart*, 171 F. App’x 924, 925 n.1 (3d Cir. 2006); *Henderson v. Carlson*, 812 F.2d 874, 878-79 (3d Cir. 1987).

The parties are directed to the Court’s Standing Order for Objections Filed Under Fed. R. Civ. P. 72, dated March 7, 2022, a copy of which is available on the District Court’s website, located at <http://www.ded.uscourts.gov>.

Dated: April 21, 2022



Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE