

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

PHIL-INSUL CORP. d/b/a)
 INTEGRASPEC,)
)
 Plaintiff,)
)
 v.)
)
 REWARD WALL SYSTEMS, INC.,)
 BUILDBLOCK BUILDING SYSTEMS,)
 LLC, NUDURA CORPORATION,)
 POLYFORM, A.G.P., INC., and AMVIC)
 CORPORATION,)
)
 Defendants,)

CASE NO. 8:12CV91

MEMORANDUM AND ORDER
RE: CLAIM CONSTRUCTION

The matter before the court is the parties' Joint Motion for Early Claim Construction (Filing No. 79). Plaintiff Phil-Insul Corp. d/b/a IntegraSpec ("IntegraSpec") has sued the Defendants alleging they infringed United States Patent No. 5,428,933 (the "'933 Patent"). The '933 Patent originally issued on or about July 4, 1995. (Filing No. 92-1.) An ex parte reexamination certificate issued on or about September 21, 2010. (Filing No. 92-2.) The '933 Patent relates to bidirectional and reversible insulating concrete forms ("ICFs"). It will expire on February 14, 2014.

ICFs are used to build concrete walls for various types of buildings. They are composed of two Styrofoam panels, spaced apart and held together by "ties or webs." They are stacked to erect a hollow wall into which concrete is poured and allowed to set. The bidirectionality and reversibility of the ICFs relates to their ability to interconnect with each other regardless of how the ICFs are rotated (horizontally or vertically). The ICFs remain in place after the concrete sets, to serve as insulation for the building. For the ICFs

to work, they must be securely interconnected when stacked. The parties' dispute concerns the interconnecting means on the ICFs disclosed in the '933 Patent.

The reexamination certificate contains Claim 1, as amended, and Claim 19, which was added during the reexamination of the '933 Patent. (Filing No. 92-2.) Claim 1 states:

1. In **[an]** a *bi-directional and reversible* insulating construction member having *substantially planar ends and* top and bottom edges and interconnecting means on said top and *on said* bottom edges, the improvement wherein *each said top* interconnecting means **[comprise]** *and each said bottom interconnecting means has a pattern, each pattern comprising* at least two *longitudinally extending* rows of alternating, *continuous, immediately adjacent* projections and recesses, *extending continuously along the entire length of said top and bottom edges, the end projection in one row flush with at least a portion of one of said end planes, within each said pattern each of said projections and recesses in each one of said at least two rows within said pattern* being of substantially the same dimension, wherein *within each said pattern* said recess of one row is adjacent said projection of the other row, and wherein said interconnecting means *patterns* on said top and bottom edges are *the same and are* offset arranged such that said recess of one row *in said pattern* on said top edge is opposed to said projection of an opposite row **[of]** *in said pattern on* said bottom edge; whereby said insulating construction member can be interconnected with a like member in a bi-directional **[or]** and reversible manner.

(Filing No. 92-2, at CM/ECF p. 3 (emphasis in original).)¹ Claim 19 states:

19. A *bi-directional and reversible insulating construction block comprising:*

a pair of substantially parallel side members having top and bottom edges and substantially planar ends;

joining means interconnecting said side members;

interconnecting means on said top and bottom edges, each said interconnecting means including substantially identical patterns including at least two longitudinal rows of alternating rectangular projections and recesses in each of said patterns, each row in each said pattern comprising

¹Words added during the reexamination are in italics. Words deleted during the reexamination process are in bold brackets. (Filing No. 92-2, column 1, lines 8-11.)

more than one projection and more than one recess, with such alternating projections and recesses being continuous along the entire length of said rows and contiguous one with another, the end projection in one row flush with at least a portion of one of said end planes, wherein said recess of one row in each said pattern is adjacent said projection of the other row in the same said pattern, within each said pattern, each of said projections and recesses in each one of said at least two rows having substantially the same dimensions;

wherein the interconnecting means patterns on said top and bottom edges are substantially offset arranged such that said recess of one row in said pattern on said top edge is opposed to said projection of an opposite row on said bottom edge; whereby said construction block can be interlocked with a like block in a bi-directional and reversible manner.

(Filing No. 92-2, at CM/ECF p. 4 (emphasis in original).)

On November 22, 2011, the parties filed their Joint Motion for Early Claim Construction.² They requested an early construction of three claim terms found in both Claim 1 and Claim 19 of the '933 Patent. The parties have agreed that those limitations should be construed the same way in both claims. The claim limitations the parties would like the Court to construe are: (1) "adjacent"³; (2) "substantially the same dimension"⁴; and

²This action was initiated in the United States District Court for the Eastern District of Texas. On February 10, 2012, the Texas court directed that the action be transferred to this Court. (Filing No. 106.) The action was placed on this Court's docket on March 6, 2012. (See Docket entry for Filing No. 1.)

³Claim 1: "wherein within each said pattern said recess of one row is *adjacent* said projection of the other row."

Claim 19: "wherein said recess of one in each said pattern is *adjacent* said projection of the other row in the same said pattern."

⁴Claim 1: "within each said pattern each of said projections and recesses in each one of said at least two rows within said pattern being of *substantially the same dimension*."

Claim 19: "within each said pattern, each of said projections and recesses in each one of said at least two rows having *substantially the same dimensions*."

(3) “substantially planar ends.” A *Markman*⁵ hearing was held before the undersigned on June 29, 2012.

CLAIM CONSTRUCTION STANDARD OF REVIEW

To determine whether a patent has been infringed, the Court must undertake a two-step analysis. “First, the [C]ourt determines the scope and meaning of the patent claims asserted.” *Cordis Corp. v. Boston Scientific Corp.*, 658 F.3d 1347, 1354 (Fed. Cir. 2011) (quoting *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc)). Second, “the properly construed claims are compared to the allegedly infringing device.” *Id.* Claim construction is a way “of elaborating the normally terse claim language in order to understand and explain, but not change, the scope of the claims.” *Terlep v. Brinkmann Corp.*, 418 F.3d 1379, 1382 (Fed. Cir. 2005) (quoting *Embrex, Inc. v. Serv. Eng’g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000)). It is also “a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.” *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). “[A] sound claim construction need not always purge every shred of ambiguity. The resolution of some line-drawing problems . . . is properly left to the trier of fact.” *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (citing *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir.1998); *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1554 (Fed. Cir. 1996); *Abbott Labs. v. Baxter Pharm. Prods., Inc.*, 471 F.3d 1363, 1368 (Fed. Cir. 2006)).

⁵See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) aff’d, 517 U.S. 370, 116 S. Ct. 1384 (1996).

“The 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.’” *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc)). To determine “the meaning of a claim term, ‘the court looks to those sources available to the public that show what a person of ordinary skill in the art would have understood disputed claim language to mean.’” *Id.* (quoting *Phillips*, 415 F.3d at 1314). Such “sources include the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.*

The Court’s “primary focus in determining the ordinary and customary meaning of a claim limitation is . . . the intrinsic evidence of record.” *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 996 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312-17). The analysis begins “with the language of the claims” themselves. *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1341-42 (Fed. Cir. 2001); see also *Phillips*, 415 F.3d at 1314 (“Quite apart from the written description and the prosecution history, the claims themselves provide substantial guidance as to the meaning of particular claim terms.”) However, “[t]he claims . . . do not stand alone.” *Phillips*, 415 F.3d at 1315. Instead, “they are part of ‘a fully integrated written instrument,’” and must be read in view of that fully integrated written instrument. *Id.* (quoting *Markman*, 52 F.3d at 979).

After looking to the language of the claim itself, “[t]he most relevant source [for ascertaining the meaning of a claim] is the patent's specification, which is ‘the single best

guide to the meaning of a disputed term.” *MBO Labs. Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1329 (Fed. Cir. 2007) (quoting *Phillips*, 415 F.3d at 1315). The next most relevant source “is the prosecution history, which . . . directly reflects how the patentee has characterized the invention.” *Id.* (citing *Phillips*, 415 F.3d at 1317). “[T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Terlep*, 418 F.3d at 1382 (quoting *Phillips*, 415 F.3d at 1314). However, “the 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.* (quoting *Phillips*, 415 F.3d at 1317); see also *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374-75 (Fed. Cir. 2008) (citing *Rexnord*, 274 F.3d at 1343) (“Statements made during prosecution may . . . affect the scope of the claims.”).

Under the “doctrine of prosecution disclaimer,” “a patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution,”⁶ such as by “clearly characterizing the invention in a way to try to overcome rejections based on prior art.” *Computer Docking Station*, 519 F.3d at 1374 (quoting *Purdue Pharma L.P. v. Endo Pharms., Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006)) (citing *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004)). When the patentee limits the scope of a patent during its prosecution, “[t]he doctrine of prosecution

⁶Although the doctrine of “prosecution history estoppel” is not applicable at this stage of the litigation, the same “clear and unmistakable” standard applies to both the doctrine of “prosecution disclaimer” and the doctrine of prosecution history estoppel, which applies “in the context of the doctrine of equivalents.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 & n.1 (Fed. Cir. 2003).

disclaimer . . . preclud[es] [the] patentee[] from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng'g*, 334 F.3d at 1323 (citing *Crawford v. Heysinger*, 123 U.S. 589, 602-04 (1887); *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227; *Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966); *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U.S. 211, 220-21 (1940)). “Such a use of the prosecution history ensures that claims are not construed one way in order to obtain their allowance and in a different way against accused infringers.” *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (citing *Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995)). Courts tend not to “to impose a precise numeric constraint” on terms of degree, such as “substantially,” but will do so if “something in the prosecution history impose[s] [a] ‘clear and unmistakable disclaimer’” that narrows the meaning of the term beyond its “plain-language interpretation.” *Playtex Products, Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 907 (Fed. Cir. 2005).

An “incorrect statement in the prosecution history does not govern the meaning of the claims,” *Rambus Inc. v. Infineon Techs. Ag*, 318 F.3d 1081, 1090 (Fed. Cir. 2003), when “[a] person of reasonable intelligence would not be misled into relying on the erroneous statement.” *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1348 (Fed. Cir. 2001). For example, an incorrect statement in the prosecution history will not govern the meaning of a claim when the statement “is contrary not only to the plain language of the claims and the specification, but also to other statements in the same prosecution document.” *Id.* In other words, if it “would . . . have been apparent to [an] interested reader that an error was made, . . . it would be unfair to

enforce the error.” *Id.* On the other hand, if it would not have been apparent to an interested reader that an error was made—a person of reasonable intelligence would be misled into relying on the erroneous statement—then an incorrect statement made during the prosecution of a patent may govern the meaning of a claim term. *See id.*

“Extrinsic evidence . . . may be helpful [to ascertain the meaning of a claim term,] but is ‘less significant than the intrinsic record in determining the legally operative meaning of claim language.’” *MBO Labs*, 474 F.3d at 1329 (quoting *Phillips*, 415 F.3d at 1317). Extrinsic evidence is very broad, and includes basically all evidence but intrinsic evidence. Common forms of extrinsic evidence include dictionaries, reference books on the topic of the art, expert testimony, and “other material not part of the public record associated with the patent.” *Id.* Although a court may rely on extrinsic evidence, extrinsic evidence “cannot be used to alter a claim construction dictated by a proper analysis of the intrinsic evidence.” *On-Line Tech. v. Bodenseewerk Perkin-Elmer*, 386 F.3d 1133, 1139 (Fed. Cir. 2004); *see also Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003) (emphasis in original) (“When an analysis of *intrinsic* evidence resolves any ambiguity in a disputed claim term, it is improper to rely on extrinsic evidence to contradict the meaning so ascertained”).

“[C]laims should be construed, if possible, as to sustain their validity.” *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999) (quoting *Carman Indus., Inc. v. Wahl*, 724 F.2d 932, 937 n.5 (Fed. Cir. 1983)) (citing *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984)); *see also Phillips*, 415 F.3d at 1327 (quoting *Rhine*, 183 F.3d at 1345). “The applicability of th[is] doctrine in a particular case . . . depends on

the strength of the inference that the [patent office] would have recognized that one claim interpretation would render the claim invalid, and that the [patent office] would not have issued the patent assuming that to be the proper construction of the term.” *Phillips*, 415 F.3d at 1328. Claims, however, will be construed to sustain their validity only if they are susceptible to more than one reasonable interpretation. See *Elekta Instruments, S.A. v. O.U.R. Scientific Int’l., Inc.*, 214 F.3d 1302, 1309 (Fed. Cir. 2000) (citing *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357 (Fed. Cir. 1999)) (“having concluded that the amended claim is susceptible of only one reasonable construction, we cannot construe them differently from its plain meaning in order to preserve its validity (upon which we do not opine).”).

Furthermore, “[b]ecause claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Phillips*, 415 F.3d at 1314 (citing *Rexnord*, 274 F.3d at 1342; *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1159 (Fed. Cir. 1997)). Therefore, “a claim term should be construed consistently with its appearance in other places in the same claim or in other claims of the same patent.” *Rexnord*, 274 F.3d at 1342. A claim term should be construed consistently throughout a claim or patent, however, only if the term is used in a consistent way throughout the patent. *Epcos Gas Sys., Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1030-31 (Fed. Cir. 2002). For example, a consistent construction of the same claim term is not required when the term is used in a different manner or context within the same patent. See *id.* (interpreting “substantially” in two different ways where term was used in two different manners within the patent).

CONSTRUCTION OF DISPUTED TERMS

I. “adjacent”

The Plaintiff contends that “adjacent” should be construed to mean “having X and Y axes, the recess in one row along the Y axis alternates with (a) a projection in the same row along the Y axis and (b) a projection in the other row along the x-axis.” The Defendants propose two alternate constructions that they contend are appropriate for the “adjacent” claim limitation. First, the Defendants contend that “adjacent” could be construed to mean “next to . . . on the same panel or sidewall.” Second, the Defendants contend that “adjacent” could be construed to mean “lies within a distance equal to two times the transverse dimension of a projection or recess from.”

The Plaintiff acknowledges that “adjacent” is susceptible to more than one interpretation and asserts that the inventor gave the term his own meaning. The Plaintiff contends that the inventor gave “adjacent” a positional-not a spatial-meaning. That is, the Plaintiff asserts that the term “adjacent” does not limit where two rows of interconnecting means are located; two rows may be on one ICF panel or, in the context of a construction block, one row may be on one panel and the second row on another panel. (See Filing No. 96, at CM/ECF p.7, illustration 4.) The Plaintiff contends that so long as a projection on one row is opposite or across from a recess on another row, the projection and recess are “adjacent” to each other. The Plaintiff contends that it is irrelevant how near a projection is to an “adjacent” recess.

To support its proposed construction, the Plaintiff points to lines 62 through 67 of column 4 of the ‘933 Patent’s specification, which state:

When two or more rows of projections **18** and recesses **20** are utilized the projections **18** and recesses **20** must alternate in both the x and y axis, i.e. a projection **18** of one row must be adjacent to a recess **20** of the other row as well as being adjacent to a recess **20** of the same row.

(Filing No. 92-1, Column 4, lines 62-67 (emphasis in original).)⁷ The Plaintiff also points to lines 21 through 24 of column 2, which state: “Where two rows of alternating projections and recesses are provided, preferably the adjacent pairs of each row are opposites, i.e. a recess of one row is preferably adjacent a projection of the other row.” (Filing No. 92-1, column 2, lines 21-24.) Lines 25 and 26 of column 2 add: “[s]uch an arrangement provides for a stronger interconnection between like insulating members.” (Filing No. 92-1, column 2, lines 24-26.)

The Plaintiff argues that the inventor chose to use the abbreviation for the Latin phrase *id est* (i.e.) to signal that he defined “adjacent” to mean only that projections and recesses have to alternate in both the x and y axes, not to mean that the two rows of projections and recesses must be next to each other. See *Tidel Eng’g L.P. v. Fire King Int’l, Inc.*, 613 F. Supp. 2d 823, 829 (E.D. Tex. 2009) (quoting *Abott Labs v. Novopharm Ltd.*, 323 F.3d 1324, 1330 (Fed. Cir. 2003)) (citing *Pfizer, Inc. v. Teva Pharm, USA, Inc.*, 429 F.3d 1364, 1373 (Fed. Cir. 2005)) (“Only when the intrinsic evidence supports an alternate definition of the term preceding ‘i.e.’ has the Federal Circuit found that the definition following ‘i.e.’ does not control.”). The Plaintiff contends that the most important feature of the invention covered by the ‘933 Patent is its bidirectional and reversible

⁷This portion of the specification makes reference to “FIG. 1,” which depicts a construction block with two rows of projections and recesses on each of its panels. (Filing No. 92-1, column 4, lines 57-67 & Fig. 1.) The Court notes that no figure in the ‘933 Patent depicts a panel, whether it is part of a construction block or by itself, with less than two rows of projections and recesses. (See *id.* Figs. 1-7.)

capabilities, and the alternation of recesses and projections along the x and y axes is required for an ICF to be bidirectional and reversible.

The Defendants contend that “adjacent” is used to indicate a spatial relationship; that it is used to mean “near to.” The Defendants assert that lines 21 through 26 of column 2 in the specification indicate that “adjacent” was meant to describe a spatial relationship. That is, those lines of the specification indicate that the greater the separation between a recess in one row from a projection in another, the weaker the “interconnection between [the] like insulating members.” (Filing No. 92-1, column 2, lines 21-26.) The Defendants also contend that the language of Claim 1 itself indicates “adjacent” was used to indicate a spatial relationship. The Defendants point to lines 29 through 35 of column 1 of the reexamination certificate, which state: “wherein *each said top interconnecting means . . . and each said bottom interconnecting means has a pattern, each pattern comprising at least two longitudinally extending rows of alternating, continuous, immediately adjacent projections and recesses.*” (Filing No. 92-2, column 1, lines 29-35 (emphasis in original).) The Defendants argue that construing “adjacent” to mean “alternating” would render the term “alternating” superfluous because the claim already contains the term “alternating” and the parties do not dispute that term’s meaning. Finally, the Defendants contend that construing the term “adjacent” to indicate a positional relationship would be inconsistent with the logic of the ‘933 Patent’s prosecution history.

The Court finds that “adjacent” should be construed to mean “*next to . . . on the same panel or sidewall.*” The intrinsic evidence supports construing “adjacent” to mean something different from “alternates.” Construing “adjacent” to mean “alternates” in both the x and y axes would render the term “alternating,” which Claims 1 and 19 already

contain, superfluous. In contrast, construing “adjacent” to have a spatial meaning would give meaning to both “adjacent” and “alternating”: “alternating” would describe the positional relationship of the projections and recesses; “adjacent” would describe their spatial relationship. “A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.” See *Merck & Co., Inc. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). Therefore, the claim language itself supports construing “adjacent” to describe the spatial relationship between the at least two rows of projections and recesses.⁸

Although the ‘933 Patent’s specification suggests that a construction block may have only one row of projections and recesses per panel, it indicates that “adjacent” was intended to have a spatial meaning, and the prosecution history creates a strong inference that the patent office would have rejected Claims 1 and 19 if it assumed “adjacent” had a positional meaning. The specification states one embodiment of the invention described in the ‘933 Patent is an “insulating construction block comprising . . . interconnecting means on the top and bottom edges, the interconnecting means including at least one row of alternating projections and recesses.” (Filing No. 92-1, column 1, lines 63-65, through column 2, lines 1-2.) However, it also states:

⁸The Court also notes that to describe the relationship between the projections and recesses on the top of a construction member and the projections and recesses on the bottom of the same construction member, the ‘933 Patent states: “wherein said interconnecting means patterns on said top and bottom edges are the same and are offset arranged such that said recess of one row in said pattern on said top edge is *opposed* to said projection of an opposite row in said pattern on said bottom edge.” (Filing No. 92-2, at column 1, lines 41-45 (emphasis added).) While the ‘933 Patent uses “opposed,” a word that clearly indicates a positional relationship, to describe the relationship between the projections and recesses on the top side of an ICF and the projections and recesses on the bottom side of the ICF, it uses the word “adjacent” to describe the at least two rows of projections and recesses on one side (top or bottom) of an ICF.

The interconnecting means on the top and bottom edges are substantially symmetrical whereby the insulating construction block can be interlocked with a like block in a bi-directional and/or reversible manner.

...
Preferably, the interconnection means on the top and bottom edges of the insulating construction panel or block includes two rows of alternating projections and recesses. Where two rows of alternating projections and recesses are provided, preferably the adjacent pairs of each row are opposites, i.e. a recess of one row is preferably adjacent a projection of the other row. Such an arrangement provides for a stronger interconnection between like insulating members.

(Filing No. 92-1, column 2, lines 3-7, 18-26.) Thus, the specification suggests that while the relationship between the projections and recesses on the top and bottom of the same construction member is key to the construction member's bidirectionality and reversibility, the purpose of having a "recess of one row . . . adjacent [to] a projection of the other row" is to "provide[] . . . a stronger interconnection" between ICFs. Without the strong interconnection created by "adjacent" rows of projections and recesses, the ICFs would be prone to concrete leaking out from within the cavity of the construction block.⁹

⁹See also Filing No. 92-6, at INT001496-1500 (emphasis added):

Thus, a form like Guarriello that has longitudinally *spaced apart, rather than immediately adjacent*, projections and recesses in between adjoining sections will not resist the shear forces as effectively as the claimed form.

...
Leakage problems are extremely serious in building an ICF wall. . . . The claimed form overcomes this problem by using *closely spaced, i.e. immediately adjacent*, projections and recesses to create greater total frictional force and seal between an upper and lower course of forms thereby resisting form lift and preventing concrete leakage.

...
It is also important that projections and recesses be *immediately adjacent* to one another *thereby eliminating any space* and further assuring the largest number of projections and recesses within a row given their size. This advantage is particularly apparent when comparing the '933 claimed form to the Guarriello '222 form embodiments. As can be seen, *the projections and recesses in Guarriello come in pairs, with a space between the pairs*, thus not maximizing the number of projections and recesses that are accommodated within one row. *In other words, the Guarriello '222 form has projections and recesses that are not immediately adjacent* nor continuously extending along the entire length of the form upper and lower edges.

...
The spaces between adjacent pairs of projections and recesses in Guarriello is far inferior

The '933 Patent's prosecution history also makes clear that "adjacent" should be construed to have a spacial meaning. The prosecution history clearly reflects that the patentee used "adjacent" to indicate the "spacial closeness," and not the positional relationship, of a projection in one row and a recess in another.

On or about February 14, 1994, Claim 1 was submitted to the patent office. At that time it did not indicate the minimum number of rows of projections and recesses that needed to be on an ICF under the '933 Patent. At the same time, Claim 4, which became Claim 11 through claim amendment, was submitted and referred to "at least one row" of interconnecting means as the minimum number of rows on a construction block. (Filing No. 92-3, at INT000034, INT000048.) On or about October 7, 1994, the patent office rejected Claims 1 and 4, indicating that Patent No. 4,894,969 ("Hrobin '969") covered the invention described in those claims. (*Id.* at INT000103-04; *see also* Filing No. 93-3.) The patent office explained that Hrobin '969 disclosed "an insulating construction block comprising a pair of parallel insulation side members (12, 14) having top an[d] bottom edges and both having interconnecting means, said interconnecting means at the top and bottom edges comprising a row of alternating projections (38, 45) and recesses (40, 46)." (*Id.* at INT000103-04.) In response to the patent office's rejection of Claims 1 and 4, the patentee amended Claim 1 and 4 so that the ICFs covered would have "at least two rows of alternating projections and recesses being of substantially the same dimension, wherein

to the arrangement in the claimed form with respect to the strength and integrity of interlocking elements.

[said] recess of one row is adjacent [said] projection of the other row.” (*Id.* at INT000116-17 (emphasis in original).)¹⁰

When it was originally submitted, Claim 1 also did not disclose that the rows of projections and recesses were “longitudinally extending,” or that the recesses and projections on those rows were “continuous, [and] immediately adjacent.” (See *id.* at INT000048.) When Claim 1 was amended so that it would include the terms “continuous, immediately adjacent” to describe the “at least two longitudinally extending rows of alternating . . . projections and recesses” (Filing No. 92-6, at INT001435 (emphasis in original)), the patentee explained that those terms were inserted to make “clear that there [we]re **no spaces** between the projections and recesses” in the ‘933 Patent, thereby “distinguish[ing] [it from] the Guarriello and Hrobin combination.” (*Id.* at INT001445 (emphasis in original).) The patent office accepted the claims as amended. (Filing No. 92-1.)

On or about November 4, 2003, Claim 19 was added to the ‘933 Patent. (Filing No. 92-7, at INT001879.) Claim 19 originally stated:

interconnecting means on said top and bottom edges, said interconnecting means including at least two rows of alternating projections and recesses, each row comprising more than one projection and more than one recess, with such alternating projections and recesses being continuous and contiguous, wherein said recesses of one row is adjacent said projection on the other row.

(*Id.* at INT001880.) The reexamination office rejected Claim 19. Thereafter, the patentee deleted the term “adjacent” from Claim 19 and inserted the words “transversely aligned.” (Filing No. 92-5, at INT001367 (emphasis in original).) The patentee explained:

¹⁰Claim 4 became Claim 11 at this time.

Claim 19 includes the limitations set forth in Claim 1 but additionally includes the limitation that the recess of one row is “transversely aligned with” the projection of the other row. The prior language used the word “adjacent.” The claim is intended to cover a block in which the top or bottom two edges of the panels have only one row of projections and recesses and thus the language “at least two rows” covers two rows on one panel, or one row on each of two panels. While the word “adjacent,” according to the Board, may include a space between two objects that are next to one another, in this case, the cavity, Patentee believes that another way of expressing the alteration in projections and recesses in a transverse direction is the term “transversely aligned.”

(*Id.* at INT001405.) When attempting to distinguish the ‘933 Patent from the prior art found in Patent No. 5,123,222 (“Guarriello ‘222”) (Filing No. 93-2), the patentee also explained that “[t]he Guarriello projections and recesses do not constitute a row, as that term is properly defined, because the projections and recesses are arranged in pairs, the pairs are not adjacent and thus do not form a ‘row.’” (Filing No. 92-5, at INT001239.) The patentee stated that the projections and recesses found in the ‘933 Patent “are not in spaced apart pairs of adjacent projections and recesses as in Guarriello.” (*Id.* at INT001251.) Amended Claim 19 was rejected again, this time because it did “not have at least all of the limitations of the patented claims. For example, the claim lack[ed] the limitation of ‘said recess of one row is adjacent said projection of the other row.’” (Filing No. 92-4, at INT1045.) The patentee thereafter removed the words “transversely aligned” from Claim 19 and reinserted the term “adjacent” (*Id.* at INT001038).¹¹ On September 21, 2012, the *ex parte* reexamination certificate issued (Filing No. 92-2.)

¹¹“As for last-revised Claim 19, Patentee has removed the words ‘transversely aligned with’ and has substituted therefore ‘adjacent;’ the word ‘adjacent’ appears in the ‘933 [P]atent Claim 1, ‘transversely aligned’ does not.” (*Id.* at INT001038.)

Thus, a review of the prosecution history makes clear that: the patent office rejected Claims 1 and 4 because Hrobin '969 already disclosed a construction block each panel of the block had one row of alternating projections and recesses; the patentee inserted the limitation "at least two rows" into Claim 1 to distinguish it from Hrobin '969 and to convince the patent office to allow the claim; the patentee inserted the limitation "continuous, immediately adjacent" to make clear that there would be "**no spaces**" between projections and recesses in order to distinguish the claim from Hrobin '969 and Guarriello '222;¹² and the patent office accepted Claim 1 as amended. In other words, the prosecution history makes clear that the patentee agreed to limit the scope of Claim 1 to cover construction members with at least two rows of projections and recesses on a panel even if the construction member is a construction block¹³ in order to overcome the patent office's rejection based on Hrobin '969, and inserted "continuous, immediately adjacent" because

¹²See also *supra* n. 9 and accompanying text.

¹³The Court notes that Claim 2 of the '933 Patent states:

An insulating construction member according to claim 1, wherein said member is an insulating construction block *comprising two panels, each of said panels having a pattern on the top and bottom edges, each of said patterns on each of said panels comprising at least one longitudinally extending row of alternating, continuous, immediately adjacent projections and recesses and each of said projections and each of said recesses within each said pattern in said at least one row being of substantially the same dimension.*

(Filing No. 92-2, at column 1, lines 49-57 (emphasis in original).) Although Claim 2 discloses a construction block on which each panel may have only one row of projections and recesses and a dependent claim that "adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim," *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007), it would be inconsistent with the specification and prosecution history to construe "adjacent" in Claim 1 to mean that projections and recesses may be "adjacent" even if they are spaced apart. Furthermore, the prosecution history creates a strong inference that the patent office would not have issued the '933 Patent with Claim 1 or Claim 19 if they encompassed construction blocks where the block's two panels each had only one row of projections and recesses, and "adjacent" is susceptible to being interpreted as "next to . . . on the same panel or sidewall." *Rhine*, 183 F.3d at 1345 (quoting *Carman Indus.*, 724 F.2d at 937 n.5 (Fed. Cir. 1983)) (citing *ACS Hosp. Sys.*, 732 F.2d at 1577) ("[C]laims should be construed, if possible, . . . to sustain their validity."); see also *Phillips*, 415 F.3d at 1327 (quoting *Rhine*, 183 F.3d at 1345).

of its spacial meaning. The prosecution history also makes clear that the patent office did not consider “transversely aligned” to mean “adjacent,” that substituting “transversely aligned” for the word “adjacent” would broaden Claim 19, and thus, that the patent office would have rejected the claim if “adjacent” meant “transversely aligned.” Finally, the prosecution history makes clear that the patentee agreed to, or at least acquiesced in, the patent office’s determination that “transversely aligned” did not mean “adjacent” when the patentee did not appeal the patent office’s determination and instead removed “transversely aligned” from the claims and re-inserted “adjacent.”

If the Court were to construe “adjacent,” to mean “alternates” in the x and y axes, “adjacent” would haven been construed one way to obtain the allowance of Claims 1 and 19 and another way in this suit against the Defendants, which would be improper. *Chimie*, 402 F.3d at 1384 (citing *Southwall Tech.*, 54 F.3d at 1576) (“Such a use of the prosecution history ensures that claims are not construed one way in order to obtain their allowance and in a different way against accused infringers.”); see also *Rhine*, 183 F.3d at 1345 (quoting *Carman Indus.*, 724 F.2d at 937 n.5) (citing *ACS Hosp. Sys.*, 732 F.2d at 1577) (“[C]laims should be construed, if possible, as to sustain their validity.”). In the context of this patent, a person of ordinary skill in the art of concrete construction would understand “adjacent” to have a spatial meaning. The Defendants’ first proposed construction gives “adjacent” a spatial meaning and would be easy for a jury to understand. See *Reedhycalog UK, Ltd. v. Baker Hughes Oilfield Operations Inc.*, No. 6:06CV222, 2007 WL 3001423, *4 (E.D. Tex. Oct. 12, 2007) (“A lay jury will understand what ‘substantially’ means, and therefore the term does not require construction.”); *IPPV Enters., LLC v.*

Echostar Commc'ns Corp., 106 F. Supp. 2d 595, 601 (D. Del. 2000) (“The court will base the jury instructions in this case on the construction of the claims adopted herein.”). Therefore, the Court will construe “adjacent” to mean: *next to . . . on the same panel or sidewall.*

II. “substantially the same dimension”

The Plaintiff contends that the term “dimension” in the limitation “substantially the same dimension,” refers only to the linear dimension measured along a projection’s or a recess’s longitudinal axis. In other words, the Plaintiff argues that the ‘933 Patent only requires each projection and recess within a pattern of interconnecting means to be “substantially the same dimension along the longitudinal axis of an ICF.” The Defendants contend that “substantially the same dimension” should be construed to mean “have the same measurable length, breadth, area and volume with only unintentional variations of 1-2% in dimension implicit in the manufacturing process.” That is, the Defendants argue that “dimension” refers to all three dimensions of a projection and recess, not just the measurement of the recesses and projections taken along their longitudinal axes. They contend that the term “substantially” is used to modify “dimension” because the Styrofoam used to make an ICF tends to shrink when it sets and, therefore, the projections and recesses will tend to differ slightly in their measurements even if the manufacturer tries to make the measurements of the projections and recesses exactly the same.

The parties agree that the claim language and the specification do not make clear which dimension or dimensions are to be considered when the ‘933 Patent states

“substantially the same dimension.”¹⁴ The Defendants contend that the prosecution history supports their proposed construction of “substantially the same dimension.” The Plaintiff contends that the portion of the prosecution history the Defendants rely upon resulted from a mistake the patentee’s attorney made and, therefore, does not affect the scope of the ‘933 Patent. The Defendants argue that the attorney’s statement was not a mistake, but even if it was, that the patentee attempted to correct it, failed, and acquiesced in the patent office’s determination that “same dimension” referred to more than just the linear dimension of the projections and recesses measured along the longitudinal axis of the ICF.

Based on the intrinsic evidence, the Court finds that “substantially the same dimension” should be construed to mean “have the same measurable length, breadth, area and volume, with only minor variations in dimension of up to about 10%.” The prosecution history shows that Claims 1 and 19 were rejected “as being anticipated by Guarriello [‘222],” for various reasons, one of which was that Guarriello ‘222 disclosed an ICF with interconnecting means comprised of “projections and recesses being of **substantially** the same dimension.” (See Filing No. 92-7, at INT001761, 1764, 1767, 1769 (emphasis in original).) When addressing the rejections based on Guarriello ‘222, the patentee maintained that the ‘933 Patent was distinguishable from Guarriello ‘222 because Guarriello ‘222 did not disclose projections and recesses that were “substantially the same dimension.” (*Id.* at INT001806.) The patentee cited to the New Shorter Oxford English

¹⁴The Court notes that the “Summary of the Invention” states: “the projections and recesses of the interconnecting means are of substantially the same shape and dimensions and, in one preferred form, are of a rectangular configuration, although it will be understood that any other configuration can be utilized, such as, for example, circular, square, triangular, polygonal, etc.” (Filing No. 92-1, column 2, lines 40-45.) Thus, the ‘933 Patent’s specification suggests that “dimension” refers to more than just the longitudinal dimension of the projections and recesses.

Dictionary, Clarendon Press, Oxford (1993 ed.), in support of its argument. (*Id.* at INT001807.) The New Shorter Oxford English Dictionary to which the patentee cited defined “dimension” as the “[m]easurable spacial extent of any kind, as length, breadth, area, volume.” (*Id.* at INT001789.) With this definition in mind, the patentee maintained:

Thus, using ordinary dictionary definitions, the phrase “said projections and recesses being of substantially the same dimension” necessarily means that the projections and recesses have, essentially or in substance, the same measurable length, breadth, area *and* volume. There is nothing in the specification that in any way teaches away from this interpretation; indeed the specification is entirely consonant with these definitions.

(*Id.* at INT001807 (emphasis added).)¹⁵ The patentee also asserted that the term “substantially,” when read together with “same dimension,” would allow for minor variations in size, such as variations implicit in manufacturing processes. (*Id.* at INT001809.) The Board of Patent Appeals relied on the patentee’s statements and found that the projections and recesses in Guarriello ‘222 were not “substantially the same dimension,” but rejected Claim 1 on different grounds. (Filing No. 92-6, at INT001539, INT001542-44.) The Board of Patent Appeals, giving the term its broadest reasonable interpretation, also “credit[ed] [the inventor]’s testimony that ‘substantially the same dimensions’ for foamed material forms would be understood by a person of ordinary skill in the art to be about 1 to 2%

¹⁵The Plaintiff contends that the patentee’s counsel mistakenly inserted “and” into the definition of “dimension.” The prosecution history does not support the Plaintiff’s contention. (See Filing No. 92-7, at INT001810 (“It is also clear that the recesses or channels are not ‘the same dimension,’ one compared with the other. Channel **274** is an ordinary rectangular space; channel **276**, which includes slot **286**, is an ‘L’ shaped space. It is axiomatic that different shapes cannot have ‘the same dimension.’”)). The patentee may have attempted to distinguish the projections and recesses in the ‘933 Patent from Guarriello ‘222 based on the projections and recesses in Guarriello ‘222 varying in measurement along their longitudinal axes. However, distinguishing prior art from the ‘933 Patent based on measurements taken along just one axis is not inconsistent with the definition of “dimension” for which the patentee argued before the patent office. The patentee could have successfully distinguished the ‘933 Patent from the prior art using any one of the four components of the definition of “dimension” it set forth.

variation in dimension.” (*Id.* at 00INT1539.) The patent office rejected the patentee’s argument that “‘substantially the same dimensions’ does not encompass ‘intentional’ differences in dimensions.” (*Id.* at INT001539.)¹⁶

Thereafter, the patentee attempted to amend Claim 1 and to add Claim 19 to the ‘933 Patent. (*Id.* at INT001157, INT001160.) The patentee tried to add to Claim 1 “measured along a longitudinal axis” after “substantially the same dimension.” (Filing No. 92-4, at INT001157 (emphasis in original).) The patentee also tried to include the language “substantially the same dimension measured along the longitudinal axis” within Claim 19. (*Id.* at INT001160 (emphasis in original).) At the same time, the patentee sought to clarify that the inventor’s testimony upon which the Board of Patent Appeals relied actually indicated that “the total variation due to manufacturing variability is approximately 10%.” (Filing No. 92-6, at INT001447.) The patentee pointed to paragraph 10 of the inventor’s declaration, which states: “There is also inherent variability in manufacturing processes, which will result in differences of dimension on the order of a few

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Mr. Philippe has extensive experience in the concrete construction industry and declares that his testimony is taken from the vantage point of a person of ordinary skill in the art. Further, Mr. Philippe’s “minor variation” definition is reasonable on its face and is not inconsistent with Webster’s definition. Based upon the evidence presented, we credit Mr. Philippe’s testimony and conclude that the broadest reasonable interpretation for the claim term “substantially” is minor variations, such as those implicit in manufacturing processes. Additionally, we credit Mr. Philippe’s testimony that “substantially the same dimension” for foamed material forms would be understood by a person of ordinary skill in the art to be about 1 to 2% variation in dimension.

Patentee also argues that the term “substantially the same dimensions” does not encompass intentional differences in dimensions. . . . Patentee fails to provide a legal basis for such a subjective approach to claim interpretation. Specifically, Patentee fails to direct our attention to a legal basis for alleging that a prior art article that is identical in every way to a claimed invention fails to anticipate the claimed invention unless the prior art article was intentionally designed to be the same as that claimed.

(*Id.*)

hundredths of an inch up to roughly a tenth of an inch or so for small structures.” (Filing No. 92-7, at INT001874 ¶ 10.) The patentee asserted that “[t]he reference to ‘small structures’ obviously refers to the size of a projection or recess. Such projections and recesses are on the order of one inch or even less. Thus, a tenth of an inch would be a ten percent variation in such ‘small structure.’” (Filing No. 92-6, at INT001451.)

On March 15, 2010, the patent office stated that “examiner notifies applicant of the language of claims 1 [and] 19 to ‘measured along the longitudinal axis’ should be deleted as they appear to broaden the claims[.]” (Filing No. 92-4, at INT000996 (emphasis in original).) The patent office did not make mention of the patentee’s clarification of the inventor’s testimony with respect to variations implicit in the manufacturing process. (See *id.*) On March 16, 2010, the patentee deleted from Claims 1 and 19 the phrase “measured along the longitudinal axis” (*Id.* at INT001013), and stated “[o]ut of an abundance of caution, [that it] wishe[d] to make clear that the statements” the examiner made on March 15, 2010, were “correct in all respects and those changes were incorporated” into the amendments “filed on March 16, 2010.” (*Id.* at INT000991.) The reexamination certificate issued thereafter.

Thus, the prosecution history makes clear that the patentee limited the meaning of “substantially the same dimension” to include more than just the longitudinal axis of an ICF. The prosecution history indicates that the patentee argued intentionally that “dimension” referred to more than just the longitudinal axis of a projection and/or recess to distinguish the ‘933 Patent from the prior art. Even if the patentee made an incorrect statement when distinguishing the ‘933 Patent from the prior art, “[a] person of reasonable intelligence”

would have relied on the statement; it is not contrary to the claim language, the specification, or the prosecution history. Therefore, it would still govern the meaning of “adjacent.” See *Biotec*, 249 F.3d at 1348. Furthermore, a strong inference may be drawn from the prosecution history that the patent office recognized Claims 1 and 19 would be invalid if Claims 1 and 19 were amended to state that “dimension” referred only to the longitudinal axis of an ICF, and the patentee expressly stated that it believed this statement to be correct in all respects and deleted those words from Claims 1 and 19.

The prosecution history also makes clear that, with respect to this limitation, the patentee limited the meaning of “substantially” to the numeric constraint of “minor variations in dimension of up to about 10%.” See *Playtex*, 400 F.3d at 902. The prosecution history shows that the claims encompass more than just projections and recesses with unintentional deviations in dimension. The patentee attempted to distinguish the ‘933 Patent from the prior art by arguing that ‘933 Patent did “not encompass [projections and recesses with] ‘intentional’ differences in dimensions.” (Filing No. 92-6, at INT001539.) The patent office rejected that argument. (*Id.*) Thus, the prosecution history creates a strong inference that the patent office would have rejected the ‘933 Patent if “substantially” imposed a requirement that the variations in the projections’ and recesses’ “dimension” be unintentional.¹⁷ The prosecution history makes clear that although the

¹⁷The prosecution history indicates that “variations implicit in the manufacturing process” was used to describe the magnitude of variations in dimension encompassed by “substantially the same dimension,” but not to indicate that variations had to be unintentional variations. See, e.g., Filing No. 92-6, at INT001542 (emphasis added) (“We have credited Mr. Philippe’s testimony that one of ordinary skill in the art would understand that the terminology substantially the same dimensions refers to variations *on the order of* those implicit in the manufacturing process.”); *Id.* at INT001539 (emphasis added) (“Based upon the evidence presented, we credit Mr. Philippe’s testimony and conclude that the broadest reasonable interpretation for the claim term ‘substantially’ is *minor variations, such as* those implicit in manufacturing processes.”).

patent office considered “variations of about 1 to 2%” to be the broadest reasonable interpretation of “minor variations,” that interpretation was not required for the ‘933 Patent to overcome the prior art. The projections and recesses of the prior art “var[ie]d by significantly more than 2%,” they varied by “approximately 20%.” (*Id.* at INT001542.) Furthermore, after the patent office gave “minor variations, such as those implicit in the manufacturing process” its broadest reasonable interpretation, the patentee clarified that a person or ordinary skill in the art of concrete construction at the time of the invention would consider “substantially the same dimension” to mean that the “dimensions” of projections and/or recesses could vary by up to about 10% and still be considered “substantially the same.”¹⁸ The patent office did not take issue with the patentee’s clarification (see Filing No. 92-4, at INT000996), and the reexamination certificate issued.

Construing “dimension” to mean “the same measurable length, breadth, area and volume,” and “substantially,” when it is used in the phrase “substantially the same dimension,” to mean “with only minor variations in dimension of up to about 10%” will ensure that Claims 1 and 19 “were not construed one way in order to obtain their allowance and in a different way against” the Defendants. *Chimie*, 402 F.3d at 1384 (citing *Southwall Tech.*, 54 F.3d at 1576). Furthermore, the prosecution history makes clear that

¹⁸See *Atl. Thermoplastics Co., Inc. v. Faytex Corp.*, 970 F.2d 834, 846 (Fed. Cir. 1992) (citations omitted) (“This court permits the [patent office] to give claims their broadest reasonable meaning when determining patentability. . . . During litigation determining validity or infringement, however, this approach is inapplicable. . . . Rather the courts must consult the specification, prosecution history, prior art, and other claims to determine the proper construction of the claim language.”); see also *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984)) (citations omitted) (“Giving claims their broadest reasonable construction ‘serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified.’”); see also *In re Yamamoto*, 740 F.2d 1569, 1572 (Fed. Cir. 1984) (“When an application is pending in the [patent office], the applicant has the ability to correct errors in claim language and adjust the scope of claim protection as needed.”).

“substantially” was intended to “impose a precise numeric constraint” on the word “same dimension. See *Platex*, 400 F.3d at 907. Therefore, the Court will construe “substantially the same dimension” to mean: *have the same measurable length, breadth, area and volume, with only minor variations in dimension of up to about 10%.*

III. “substantially planar ends”

The parties do not dispute what the terms “planar” or “ends” mean. They agree that “planar” means “flat,” and that “ends” refers to the surfaces found at reference numerals **10**, **12**, and **34** in Figures 1 and 2. (See Filing No. 92-1, Figs. 1 & 2.)

The Defendants contend that “substantially” should be construed the same way for both the “substantially planar ends” limitation and the “substantially the same dimension” limitation. They contend that the only variations from “flat” that fall within the scope of Claims 1 and 19 are unintentional variations in flatness implicit in the process of manufacturing an ICF. Therefore, the Defendants contend that “substantially planar ends” should be construed to mean “flat ends situated in a plane with only unintentional variations implicit in manufacturing processes.” The Plaintiff argues that the “substantially planar ends” limitation does not need to be construed for the jury. Instead, they maintain that the terms should be given their plain and ordinary meaning.¹⁹

Unlike the “substantially the same dimension” limitation, the intrinsic evidence applicable here does not indicate that “substantially” was intended to “impose a precise numeric constraint” on the “planar ends” limitation, see *Playtex*, 400 F.3d at 907, or that

¹⁹The Plaintiff asserts that, to the extent that the Court decides the limitation must be construed, it should be construed to mean “ICF panel ends that are flat or nearly flat including a low profile tongue and groove joint.” The Plaintiff contends that the ‘933 Patent and its prosecution history make clear that even intentional deviations from completely flat are within the scope of “substantially planar ends.”

the '933 Patent only contemplates unintentional deviations from flat with respect to its "ends." The claims themselves do not reveal the construction that should be given to the limitation "substantially planar ends." The '933 Patent discloses, however, that the "ends" may be "substantially" flat even if they have portions that are slightly raised. Although Figure 1 of the '933 Patent discloses an embodiment of the invention in which the "ends" appear completely flat, Figures 6 and 7 depict construction blocks with distinct patterns of slightly raised sections on their "ends." (Filing No. 92-1, Figs. 6 & 7, INT000012, column 4, lines 30-34). The distinct pattern of raised sections indicates that a person of ordinary skill in the art of concrete construction would believe "substantially planar ends" means slight deviations from "completely flat," even if the deviations are intentional. Thus, the Defendants' proposed construction is inconsistent with the '933 Patent's specification.

The prosecution history also indicates that a person of ordinary skill in the art of concrete construction would have understood "substantially planar" to include variations from "flat" even if they are intentional. The patentee added the phrase "substantially planar ends" to Claims 1 and 19 during the reexamination process to overcome rejections based on Hrobin '969 and Guarriello '222. (Filing No. 92-4, at INT001168.) The patentee pointed only to Figures 1 and 2 of the '933 Patent to support inserting "substantially planar ends" into the '933 Patent. (Filing No. 92-4, at INT001069.) The patentee indicated, however, that using the term "substantially" to modify "planar" was appropriate because "the end[s] of the forms are not completely planar since they have interlocking tongues and grooves and the statement that the end projection was flush [with the end plane of the form] would have to be modified to state that it is flush with 'at least [a] portion' of the end plane." (Filing No. 92-4, at INT001088.) Thus, the patentee indicated during the prosecution of the

'933 Patent that the "ends" are not "completely planar" due to intentionally created "tongues and grooves."

The Defendants' only other argument in support of their proposed construction is that "substantially" should be construed the same way for both the "substantially the same dimension" and the "substantially planar ends" limitation. However, as explained above, nothing in the intrinsic evidence indicates that "substantially" was used consistently between claim limitations, or that it was meant to "impose a precise numeric constraint" on "planar ends." Therefore, the Court will not impose such a constraint. See *Playtex*, 400 F.3d at 907.

The Federal Circuit has "held that . . . 'words of approximation, such as "generally" and "substantially," are descriptive terms "commonly used in patent claims to avoid a strict numerical boundary to [a] specified parameter.'" *Playtex*, 400 F.3d at 907; see also Oxford University Press, *The New Oxford American Dictionary*, 1696 (Elizabeth J. Jewell & Frank Abate eds., 2001) ("**sub•stan•tial•ly** . . . **1** to a great or significant extent . . . **2** for the most part; essentially"); Filing No. 92-7, at INT001785. A jury will understand this non-technical term, and the Court will not attempt to paraphrase it for them. See *Reedhycalog*, 2007 WL 3001423, *4 ("A lay jury will understand what 'substantially' means, and therefore the term does not require construction."); cf. *U.S. Surgical Corp.*, 103 F.3d at 1568 ("Claim construction is a matter . . . to clarify and when necessary to explain what the patentee covered by the claims . . . It is not an obligatory exercise in redundancy."); *IPPV Enters.*, 106 F. Supp. 2d at 601 ("The court will base the jury instructions in this case on the construction of the claims adopted herein."). The term "planar," however, may confuse the

jury, and the parties do not dispute that “planar” means “flat.” Therefore, the Court will construe “planar” to mean “flat.”

CONCLUSION

In summary, the Court adopts the existing wording of the claims, except the following construction shall apply:

In Claim 1, “adjacent” in the phrase “wherein within each said pattern said recess of one row is *adjacent* said projection of the other row” is construed to mean: wherein within each said pattern said recess of one row is *next to* said projection of the other row *on the same panel or sidewall*.

In Claim 19, “adjacent” in the phrase “wherein said recess of one row in each said pattern is *adjacent* said projection of the other row in the same pattern” is construed to mean: wherein said recess of one row in each said pattern is *next to* said projection of the other row *on the same panel or sidewall* in the same pattern.

In Claims 1 and 19, “substantially the same dimension” is construed to mean: *the same measurable length, breadth, area, and volume, with only minor variations in dimension of up to about 10%*.

In Claims 1 and 19, “substantially planar ends” is construed to mean: *substantially flat ends*.

Accordingly,

IT IS ORDERED:

1. The Court construes the term “adjacent” to mean “next to . . . on the same panel or sidewall”;

2. The Court construes the term “substantially the same dimension” to mean “have the same measurable length, breadth, area and volume, with only minor variations in dimension of up to about 10%,” and
3. The Court construes the term “substantially planar ends” to mean “substantially flat ends.”

DATED this 19th day of July, 2012.

BY THE COURT:

s/Laurie Smith Camp
Chief United States District Judge