

United States District Court,  
C.D. California.

**ELITE ALUMINUM CORPORATION,**  
Plaintiff.

v.

**Kathy TROUT; Squirrel Hollow Enterprises d/b/a Duraform Building Panels; and Outback Patio & Sunrooms, Inc,**  
Defendants.

No. EDCV-06-5664-SGL (OPx)

**Sept. 13, 2007.**

Jennifer E. Simpson, L.A. Perkins, Robert Edward Pershes, Buckingham Doolittle and Burroughs, Boca Raton, CA, Lawrence M. Hadley, Omer Salik, Hennigan Bennett & Dorman, Los Angeles, CA, for Plaintiff.

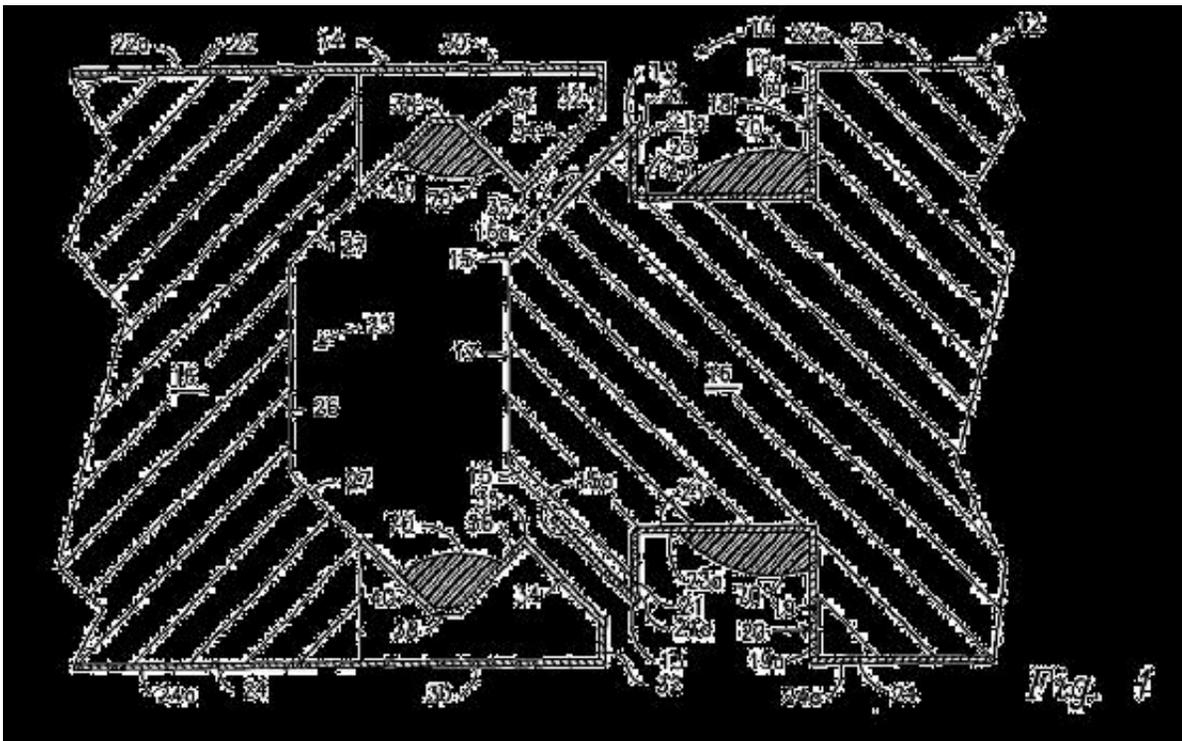
Christina J. Moser, Wade Mitchell, Baker & Hostetler LLP, Cleveland, OH, George L. Baugh, George L. Baugh Law Offices, Fullerton, CA, Michael C. Cesarano, Akerman Senterfitt, Miami, FL, for Defendants.

### **ORDER CONSTRUING CERTAIN CLAIMS IN '939 AND '963 PATENTS**

**STEPHEN G. LARSON, District Judge.**

Both Squirrel Hollow Enterprises d/b/a Duraform Building Panels ("Squirrel Hollow") and Elite Aluminum Corporation ("Elite") are manufacturers of composite, interlocking aluminum panels used in the construction of factory-built housing as well as for patio and room additions. The panels consist of expanded polystyrene foam and an aluminum skin or facing mounted to the front and back of the foam.

Elite is the owner, by assignment, of United State Patent No. 5,502,939 ("the '9 patent"), a patent covering the interlock mechanism for its composite aluminum panels. Elite's patented interlock system allows for two different methods of locking and unlocking aluminum panels, the "straight in" method (wherein the panels are joined by laterally pushing one panel into the other panel that is already installed) and the "rock and lock" method (wherein one panel is pre-positioned in place and the second panel is then inserted into the first at a forty-five degree angle). The manner in which the foam core and metallic skins are shaped to form this combination interlock design is illustrated in Figure 1 of the '9 patent:



The prior art only allowed for use of one or the other of these two interlock methods. Such a limitation was significant as each method suffered from certain drawbacks either in assembly or allowing disassembly of the panels. The invention contained in the '9 patent thus filled a void in the marketplace by providing for a design that combines these two interlock methods, gaining their advantages without suffering from their disadvantages: The panels gain the tightness in the connection between the panels provided by the "straight in" method, while at the same time maintaining the versatility for disassembly provided by the "rock and lock" method.

Elite is also the owner of United States Patent No. 4,769,963 ("the '963 patent"), the patent that was later modified and improved upon by the '9 patent. The '963 patent covers a bonded panel interlock device but, unlike the '9 patent, the locking mechanism for its contiguous panels is limited to the straight-in method. The '963 patent was invented by Steven Meyerson and originally assigned, presumably to his employer, Structural Panels, Inc., then later assigned to Republic Bank, before ownership was transferred to Elite.

Elite has filed a suit against Squirrel Hollow and its distributor alleging that its panels infringe Elite's '9 and '963 patents. The parties filed competing briefs seeking for the Court to construe certain terms contained in the patents at issue.

### **A. Claim Construction Process**

Patents consist of "claims" that "point out ... the subject matter [ (be it, a process, a machine, a manufacture, a composition of matter, or a design) ] which the applicant regards as his invention," 35 U.S.C. s. 112, and the construction of claims is a matter of law for which the Court has sole responsibility. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). By interpreting the words used in a claim, courts explain the scope of the claim, which consequently defines the scope of the patented invention. *See id.* at 373-74 ("The claim defines the scope of a patent grant and functions to forbid

not only exact copies of an invention, but products that go to the heart of an invention but avoids the literal language of the claim by making a noncritical change" (internal citations and quotations omitted)). Claim construction is therefore a critical task, as it not only elucidates what has been patented but, just as significantly, it serves to note what is excluded from the reach of the patent. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005) ("It is a 'bedrock' principle of patent law that 'the claims of a patent define the invention to which the patentee is entitled to exclude' "). In practice, executing the *Markman* mandate means following rules that rank the importance of various sources of evidence for the "true" meaning of claim terms.

"When construing patent claims, the Court must look first to the intrinsic evidence in the record: The claims, the specification, and the prosecution history." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed.Cir.1995). Such intrinsic evidence is the primary source from which to derive a claim term's meaning. *Phillips*, 415 F.3d at 1314, These intrinsic sources are not considered equal; rather, they are a "hierarchy of analytical tools ." *Digital Biometrics, Inc. v. Indentix, Inc.*, 149 F.3d 1335, 1344 (Fed.Cir.1998). "The actual words of the claim are the controlling focus." *Id.*; *see also Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed.Cir.2004) ("[C]laim construction analysis must begin and remain centered on the claim language itself"). While the specification and the prosecution history serve to "place the claim language in its proper technological and temporal context," the claim language as used by "skilled artisans at the time of the invention" controls unless the intrinsic evidence found in the specification or the prosecution history "compels a contrary conclusion." *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1338-39 (Fed.Cir.2005).

The language used in the claim in question is the most important guide in the court's analysis. *See Digital Biometrics*, 149 F.3d at 1344. Towards that end, courts must give the words used in a claim their "ordinary and customary meaning" as defined by how that term is understood "to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. Awh Corp.*, 415 F.3d 1303, 1313 (Fed.Cir.2005). For these purposes, "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specifications." *Id.*

Moreover, the Federal Circuit has recognized that in some instances "the ordinary meaning of claim language as understood by a person of ordinary skill in the art may be readily apparent even to lay judges" such that "claim construction ... involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. Oftentimes, however, claim terms in a patent are so technical or particularized (even idiosyncratic) to the field in which they are being used that determining their meaning requires a more rigorous analysis. Inventors, not surprisingly, "are typically persons skilled in the field of the invention" and, often write the claims in their patents, so as to be understood only by others in the same field. *Phillips*, 415 F.3d at 1313 (observing that inventors' "patents are addressed to and intended to be read by others of skill in the pertinent art"). For this reason, "the inventor's words that are used to describe the invention-the inventor's lexicography-must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology." *Id.* (citations and quotation marks omitted).

The court must read claim language, however, in light of the remainder of the patent's specification, which includes the description of the field and background for the invention, a written description of the invention, and drawings illustrating the invention. *See Phillips*, 415 F.3d at 1316 ("[T]he specification necessarily informs the proper construction of the claims"); *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352

(Fed.Cir.2001) ("The claims are always construed in light of the specification, of which they are a part"); *Cf.* 35 U.S.C. s. 112 (requiring that the inventor include a "specification" in an application for a patent, and that the specification contain "a written description of the invention, ... the manner and process of making and using it, ... set forth the best mode contemplated by the inventor of carrying out his invention" and "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention"). The specification acts as a "concordance" for claim terms delineating "the manner and process" of what the invention does and how it performs, and is thus the best source beyond the claim language for understanding claim terms. *Id.* at 1315. The inventor is free to use the specification to define claim terms as she wishes, and the court must defer to the inventor's definitions. *Id.* at 1316 ("[T]he inventor's lexicography governs"). The court should "rely heavily" on the specification in interpreting claim terms as it is perhaps the best way to understand a technical term because it gives context from which the term itself arose. *Id.* at 1317. The court should not, however, commit the "cardinal sin" of claim construction-reading limitations from the written description of the invention found in the specification into the claims. *Id.* at 1320. Although a court should limit the meaning of a claim where the "specification makes clear that the invention does not include a particular feature," the court must not read "particular embodiments and examples appearing in the specification" into the claims unless the specification requires it. *See Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed.Cir.1988).

Although the patent's prosecution history (termed the patent's file wrapper) is also intrinsic evidence, it is "less useful for claim construction purposes." *Id.* at 1317. A patent's prosecution history contains "all [the] express representations made by or on behalf of the applicant to the examiner to induce a patent grant," which may come in the form of "amendments to the claims and arguments made to convince the examiner that the claimed invention meets the statutory requirements of novelty, utility, and nonobviousness." *Jonsson v. Stanley Works*, 903 F.2d 812, 818 (Fed.Cir.1990). As the prosecution history documents an invention's evolution from application to the issuance of the patent, it usually "lacks the clarity of the specification...." *Constant*, 848 F.2d at 1571. Nonetheless, the prosecution history remains useful, especially when an inventor has expressly disavowed certain interpretations of his or her claim language. *Id.* Furthermore, even without such disavowal, 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." *Phillips*, 415 F.3d at 1317. The statements in the prosecution history, however, must be "clear and unmistakable" in order to limit the scope of a claim. *Resqnet.com, Inc. v. Lansa, Inc.*, 346 F.3d 1374, 1378 (Fed.Cir.2003).

Finally, the court can consider extrinsic evidence, "including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317. For a variety of reasons, extrinsic evidence is usually "less reliable than the patent and its prosecution history" as a source for claim interpretation. *Id.* at 1318. The court thus need not admit extrinsic evidence, but may do so in its discretion. *Id.* at 1319. As the *Phillips* court put it, the "inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." *Id.* at 1314. However, the court can only rely on dictionaries or on expert testimony from a person of skill in the art when no answers are apparent from the intrinsic evidence.

## 1. The '9 Patent

Here, the Court is called upon to construe the following claim language in Elite's '9 patent relating to the shape and construction of the metallic skins to the interlock panels: "[S]aid top and bottom metallic skins

having plural bends formed therein to overlie said channels"; "a second part bent toward one another at a substantially ninety degree angle"; "said second and third parts having a combined extent substantially equal to the depth of said channels"; and "said fifth part extending toward said second core edge by a predetermined distance and forming a flat." FN1

Each parties' claim construction of these terms in the '9 patent is listed as follows:

<b>Disputed Term</b>	<b>Elite's Proposed Claim Construction</b>	<b>Squirrel Hollow's Proposed Claim Construction</b>
"said top and bottom metallic skins having plural bends formed therein to overlie said channels"	To lie over, but does not require continuous contact between metallic skin and foam core	Closely adhering as an outside layer to the two grooves, each formed on opposite sides of the foam protrusion, having flat bottoms parallel to the top and bottom surfaces of the foam core, touching the foam core
"a second part bent toward one another at a substantially ninety degree angle"	An approximately ninety degree angle is formed by bending the second parts of the top and bottom metallic skins toward each other, when measured from the apex of the angle on the top metallic skin to the apex of the angle of the bottom metallic skin in relationship to the top and bottom surfaces of the metallic skin	An angle formed by the bending of two planar parts of the cantilevered end of the metallic skin that is between eighty-eight and ninety-two degrees
"said second and third parts having a combined extent substantially equal to the depth of said channels"	The distance from the transversely extending peak created by the third and fourth parts to the outer metallic skin of the inwardly extending second edge is approximately the same distance as the distance from the bottom wall of the channel with the overlying metallic skin to the outer metallic skin on the protruding first edge of the foam core	When engaged, the combined distance of the second and third parts from the first unbent part is such that the bent metallic parts extend into the channels formed on opposite sides of the foam core protrusion so that the bent metallic parts touch, making contact with, or nearly touch the flat bottom of said channels
"said fifth part extending toward said second core edge by a predetermined distance and forming a flat"	A surface that allows lateral movement within the interlock connection in a parallel relationship to the top and bottom surfaces of the metallic skin surface	Essentially planar, within a thousandth of an inch

**a. Overlie said channels**

Elite rightfully observes that the term "overlie" as used in the '9 patent was meant "to describe the relationship of the aluminum skin and the foam core." (Pl's Memo. in Supp. at 10). The principal difference between the parties' proposed construction of this term is over whether or not the aluminum skin must continuously, physically *touch* the foam along the channels routed in the foam core that are utilized in

interlocking the panels together.

Resolving this difference turns in part on the ordinary meaning of the term "overlie." Although Squirrel Hollow's expert (Mr. Robert Walz) asserts that the term is used in the metal fabrication industry to mean "direct contact" (Decl. Lawrence Hadley, Ex. 8 at 29), nowhere does Mr. Walz expound upon how or why the industry uses the term in that manner. For its part the dictionary simply defines "overlie" to mean "to lie over or on top of, to cover." Oxford English Dictionary (draft revision Dec. 2004); *see also* MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 829 (10th ed.1999) (defining term "overlie" to mean "to lie over or upon"). Such a meaning would seem to leave unaddressed (and perhaps that was the purpose for employing the term by the inventor) the critical question at issue in this case; namely, how or in what way one object (the metal skin) lies over or upon another (the channels routed in the foam core). Does the metal skin have to not only cover the routed out foam core channels, but also continuously physically touch those foam core channels as well? The claim language immediately preceding the one in question also speaks in general terms of the relation between the metal skin and the foam core, stating that "said top and bottom surfaces of said foam core being *covered* by a top and bottom metallic skin, respectively." (emphasis added). Again, the dictionary's definition is unhelpful as it defines the term "cover" as simply "to lie over: ENVELOP; to lay or spread something over: OVERLAY; to spread over." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 268. The term "cover" simply does not seem to address how or the manner in which the skin is affixed on top of the routed out foam core.

Squirrel Hollow presses the point that the description of the invention's preferred embodiment in the patent (that is, a drawing of the invention in its exemplary form) demonstrates continuous physical contact between the aluminum skin and the foam core, and that such contact was meant for more than a simple aesthetic function but was intended to signify a mechanical function served by such contact. In particular, Squirrel Hollow directs the Court's attention to the following written description of the drawings of the invention's preferred embodiment:

Note that peak 35 forms a transversely extending line of *contact* with its associated channel bottom walls 23. Thus, there is very little friction along said line of *contact*; this enables lateral displacement of the mating panel edges. Moreover, the *contact* ensures that mating panels will not slide relative to one another in a vertical plane when walked upon. Earlier panels in this field lack such *contact* and thus are subject to such movement as mentioned earlier.FN2

(Column 4: lines 66-67 to Column 5: lines 1-6 (emphasis added)).

No doubt this description of the invention's preferred embodiment stresses that there is actual contact between a portion of the male part of the interlock device (that is, the associated channel bottom walls 23) and its corresponding female pair (that is, the peak 35), and that said contact provides an improvement over the prior art. The problem is that the description's reference to such contact between the two is limited to particular portions of the panel's *metal skins*-that is, the metal skins of the triangular portion of the interlock mechanism with its corresponding flat must come in contact. ( *See* Column 5: lines 7-13 (pointing out the same requirement for a "line[ ] of contact" between point 13 and point 38)). Significantly, nowhere does this description require or even speak to the issue of the contact between the *foam core* and the metal skins themselves.

Also problematic is that the patent used the term "overlie" in the context of the *entirety* of the device; its use was not limited simply to the triangular portion of that male and female interlock (which again did not

speak of "contact" between the metal and the foam, but rather between one part of the receiving section and that of its male counterpart; that is, metal in contact with metal). The patent's specification uses the term *overlie* when speaking of the metal skin lying over the top and bottom surfaces of the foam core, the channels routed out of the foam core, and a portion of the leading edges (or in the parlance of the patent, "a preselected extent of the inclined walls contiguous to the channels") to the mating portion of the male panel interlock and its female counterpart. ( *See* Column 2, lines 10-15 ("Summary of Invention"); Column 3, lines 61-65 ("Detailed Description of the Preferred Embodiment"); Column 6, lines 22-28 (Claim One of Patent)). This is significant because there are portions of the panel interlock device that are *not* covered by a metal skin, notably a portion of the leading edge to the mating portion of the male panel interlock and the flattened tip to the same, as well as the corresponding portions of the female panel interlock. ( *See Id.*; *see also* Figures 1-6). Such a correlation between where there is a metal skin on the panel and the use of the term "overlie" strongly suggests that the purpose for its use in the claim in question was simply meant to signify where on the panel the aluminum metal served as a skin over the foam core, and where it did not. The issue of contact, adhesion, bonding, *etc.*, between the metal skin itself and the foam was simply not addressed or contemplated by the claim language.

This leads back to the drawings themselves which show the metal skin lying on top of and apparently in continuous contact with the foam core. Squirrel Hollow takes this visual depiction of the invention's preferred embodiment as confirmation that the claim language "overlie" was meant to also require continuous physical contact between the metal skin and the foam core. Squirrel Hollow's use of the drawing crosses the boundary between use of the patent's specification to aid in construing a claim term to that of improperly reading in a limitation from the specification's general discussion, embodiments, and examples. *See Tehrani v. Hamilton Medical, Inc.*, 331 F.3d 1355, 1362 (Fed.Cir.2003) (observing that disclosure of an embodiment with a feature in the specification of the patent "is not a sufficient basis on which to read the limitation ... into the claim"). The Federal Circuit has warned against precisely what Squirrel Hollow is attempting to do in this case:

[I]f an invention is disclosed in the written description in only one exemplary form or in only one embodiment, the risk of starting with the intrinsic record is that the single form or embodiment so disclosed will be read to require that the claim terms be limited to that single form or embodiment.... But if the meaning of the words themselves would not have been understood to persons of skill in the art to be limited only to the examples or embodiments described in the specification, reading the words in such a confined way would mandate the wrong result and would violate our proscription of not reading limitations from the specification into the claims.

*Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1204-05 (Fed.Cir.2002). The Court hesitates to adopt a construction of "overlies" that would be predicated entirely on a disclosed preferred embodiment when the ordinary meaning of the term itself does not necessarily support such a limitation, and the manner in which the term is used in the patent's specification discloses a much more limited purpose for the term.

Furthermore, the scope of the claims in the patent are not limited to the preferred embodiments described in the specification. *See Fuji Photo Film Co. v. International Trade Comm'n*, 386 F.3d 1095, 1106 (Fed.Cir.2004) ("It is a familiar axiom of patent law, however, that the scope of the claims is not limited to the preferred embodiments described in the specification"). This is because "an applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention." *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1344 (Fed.Cir.2001). Were the Court to use the drawings in the patent as a basis for requiring that the metal skin not only lie over the portions of the foam designated

therein, but also literally and continuously touch the foam core itself, it would be limiting the term overlies contained in claim 1 to the patent to a preferred embodiment of the patent. "Claims of a patent may only be limited to a preferred embodiment by the express declaration of the patentee ." Playtex Prods., Inc. v. Procter & Gamble Co., 400 F.3d 901, 908 (Fed.Cir.2005). There is simply no indication in the patent itself limiting the construction of its terms to that represented in the preferred embodiment of the patented device. This in itself would be sufficient to rebut Squirrel Hollow's reliance on the preferred embodiment, but there is more.

Moreover, that the drawings of the preferred embodiment in the '9 patent shows "contact" between the metal skin and the foam core does not necessarily mean that such direct physical contact is a pre-requisite for the invention's performance or function. Rather, it may also simply be seen an easier way to illustrate the point that portions of the device have a metal skin while others do not. Indeed, such contact could simply be the result of the two being affixed together, not that they must lie in continuous physical contact with one another.

This observation appears to be confirmed by looking at the prior art; in particular, consulting the patent on the subject immediately preceding the present one, the '963 patent. The '963 patent discusses in specific detail the subject of how the metal skin lies in relationship with the foam core-the metal is "bonded" to the foam core through "glue" or other "adhesive" materials. (Abstract ("two sheets of thin metal bonded to a styrofoam core"); Summary of Invention ("thin metal sheets separated by an insulating rigid foam core bonded to the inner side of the metal sheets"); Detailed Description of the Preferred Embodiment ("with an insulating rigid foam core bonded to the two sheets") & ("The core 16 is bonded on each side to sheet 12 and 14 respectively with glue or a standard contact adhesive")). Given the state of the prior art, it is only fitting to construe the same method as being utilized in the '9 patent-that is, a metal skin and inner foam core. The two patents speak of a metal skin over a foam core, and the earlier patent (the '963 patent) states that the two are glued or adhered together, not that the metal skin actually and continuously touches the foam core itself.

Nor does anything in the description to the preferred embodiment require such continual contact between the metal skin and the foam core. The description on this point-the metal overlaying the foam core-simply states: "A metallic skin 22a, 24a overlies said top and bottom surfaces [of the foam core] 22, 24, respectively. Said skins are bent ninety degrees as shown to overlies trailing walls 19 as at 19a, leading walls 21 as at 21a, bottom walls 23 as at 23a, and about half of each inclined wall as at 15a." (Column 3, lines 61-65). This could just as well denote *where* the metal skin lies over the foam core as it could signify that there also be direct and continuous physical contact between the skin and foam core at those points. Nowhere has Squirrel Hollow come forward with any explanation for why such "continual contact" is necessary for the invention to work. The most they have proffered is that "the aluminum skin in the channel must be firm, supported by the foam core, and therefore touching the foam core." (Defs' Reply at 20). The conclusion is not required by the premise: That the aluminum skin must be firmly affixed to or supported by the foam core simply does not mean that it must *continually touch* the foam core itself. Such firmness could also result from gluing the two together at certain points (as in the prior art), even though the glue would contribute to the metal indirectly touching the foam core.

Squirrel Hollow next argues that overlies must denote contact because "the patent refers to the overlying element as a 'skin.' 'Skin' implies continual, or virtually continual, contact with the foam core." (Defs' Mem. in Support at 17). The problem with this argument is that the patent makes use of the term "skin" only in relation to the aluminum. The patent speaks of "metallic skins." Such usage simply signifies that, once

constructed, the interlock mechanism is covered in metal; it does not speak to the issue of whether or not the foam core must be in continuous contact with this metallic facing.

In the end, the Court does not see the patent speaking squarely to this issue, perhaps because the manner in which the metal is affixed to the foam core was unimportant (or previously addressed in the prior art) to the patented invention's functionality. There are many ways that a facing can and does affix itself to that to which it is mounted. Indeed, much can be read from the fact that the patent specification uses the term "contact" when the patent requires something to physically touch something else, yet here the claim language merely requires the metallic skins to "overlie" the foam core.

In further support of its argument, Squirrel Hollow again references the report of its expert, Mr. Walz, who summarily provides as his opinion the same definitions for all the terms in dispute as advanced by Squirrel Hollow. Such expert opinion is of dubious value. The Federal Circuit has cautioned courts from relying on expert opinions that provide nothing more than "conclusory, unsupported assertions ... as to the definition of a claim term." Phillips, 415 F.3d at 1318. Expert opinions are useful when they provide such information as to "background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* Mr. Walz's opinion does none of those things; rather he simply declares what the terms in the patent's claim language mean and leaves it at that. He never once provides any reason for why the claim language must have that definition.

For its part, Elite submits the report of its expert, Mr. Jack Dixon, who opines, with at least some reasoning, that the term "overlie" simply requires that the aluminum skin lie over the foam core, not that it must also touch the foam core:

The term "overlie" ... would mean ... to lie over the channels that are present in the foam structure over which the aluminum is placed. There is no requirement that the aluminum be in continuous contact with the foam core. In fact, normal manufacturing tolerances and variations in manufacturing would dictate that the channel created by the aluminum be smaller than the channel within the foam core so that it will fit within the foam and allow some clearance so that proper adhesion can take place between the aluminum skin and the foam core.

(Decl. Lawrence Hadley, Ex. 4 at 2-3). Squirrel Hollow quibbles with Mr. Dixon's statement that the aluminum skin and foam core are adhered together during the manufacturing process as somehow an admission that the two are in continuous contact with one another. The Court does not read Mr. Dixon's report in that manner. Mr. Dixon simply signifies that the two elements have to be affixed (that is, glued) together; otherwise they would simply slide off one another. Even when glued so as to affix the two parts together, there may still be a space or gap, however small between the two, that is filled by air or glue. Mr. Dixon testified that "the metal had to touch uniformly the routed core," but also that it does not "have to be 100 percent in contact with the foam." (Decl. George Baugh, Ex. 4 at 47). This implies that some contact between the two does or must occur, but not, as Squirrel Hollow suggests that the metal skin must be in *constant* physical contact with the foam core.

In the final analysis the Court sees nothing here requiring continual physical contact between the metal skin and the foam core. Rather, it appears that the patent simply calls for the metal skin to lie over the foam core, never specifying how or to what extent the two are affixed together. Accordingly, the Court adopts Elite's

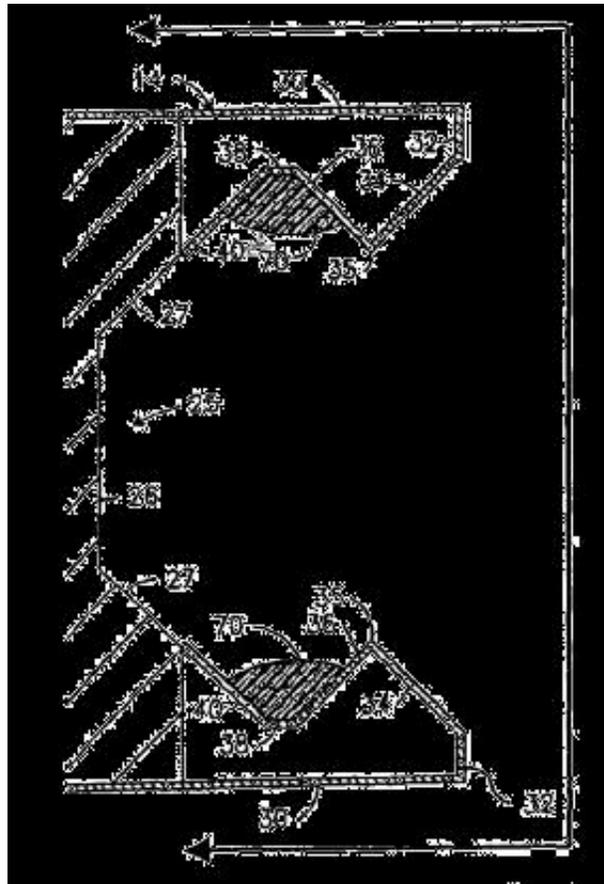
construction of the disputed term.

**b. *Substantially ninety degree angle***

Here, the parties diverge on the mechanics of how the angle in question is formed (or, perhaps more precisely stated, what is to be measured to determine the the angle in question), and how much variance from a precise 90 degree angle is contemplated by the patent. The Court will address each issue in turn.

**1. *Measurement of Angle***

The claim language in question provides for "a second part bent toward one another at a substantially ninety degree angle." The parties' dispute deals with the first half of the claim language. Elite argues that the claim language "describes the relationship of the apexes of the angle formed by the first and second parts of the top and bottom metallic skins." (Pl's Mem. in Supp. at 12). Further, they argue, "the specification does not expressly state that it is the overall angle across the face of the opening in the first edge or 'female' portion of the composite panel that is relevant, instead of the separate angles formed on each side of the opening." (Pl's Mem. in Supp. at 12). In other words, according to Elite, the angle is measured at the cross-section if the line at 30 were to continue to run out and meet with an imaginary perpendicular plane. (Pl's Mem. in Supp. at 12 ("the measurement of this angle across the face of the opening in the female portion of the interlock")). Elite's depiction of the resulting angle to measure is shown below:



Squirrel Hollow, on the other hand, argues that the angle at each corner of the opening is the proper measurement for the angle, that is, the angle is formed and measured at the actual point where 30 meets 32.

The critical question is this: To what angle in the invention is the claim language in the patent speaking? Does the angle in question refer to the measurement of the angle formed across the entire face of the opening of the interlock (as Elite suggests), *or at* each corner of the opening (as Squirrel Hollow suggests)?

Elite's assertion that the patent's specification does not "expressly state" what is to be measured is overstated. The claim language does speak to the issue, albeit indirectly. When the claim language in question references the angle, it indicates that it is formed at the point where the metallic skins running along the top and bottom surfaces of the panel are "bent toward one another." This language thus draws attention to the actual *bend* in the metallic skin, rather than to some hypothecated angle lying beyond the physical confines of the invention. Such focus on the physicality of the point strongly suggests that it is at that same point where the metal is bent that the angle in question is to be measured. In other words, that the angle is not only formed at the edges of the female portion of the interlock where point 30 meets with point 32, but that the angle is to be measured at that same place as well.

Such a reading, in fact, is consistent with the way in which the patent is crafted. The focus on the physical dimensions of the device is pervasive throughout the patent. As Elite itself noted in its motion for a preliminary injunction in this case, the elements in the '9 patent's claims "are mechanical and geometric" in nature, describing in great detail how the locking channels between the two parts of the panel are shaped and interface with one another. (Mot. Preliminary Inj. at 7). In fact, elsewhere in the claims of the patent where mention is made of the formation of a particular angular degree, the language stresses the physical relation between the parts in question. Thus, for instance, claim 3 in the patent states that "said third and fourth parts of said second end of said metallic skins are bent with respect to one another by about ninety degrees" (that is, where point 34 meets point 36).

Again the language in claim 3 stresses the angle formed at the point where the physical portions of the metallic skins in question are "bent" toward one another. Nowhere is it suggested in the patent itself that the angle to be measured would lie beyond that physical meeting point at where a hypothetical extension of the skin would intersect with some unseen and unspecified perpendicular plane. The Court sees no reason why the measurement of the angle should occur elsewhere, least of all one lying at a hypothecated point nowhere reflected in any of the patent's language or specification.

Just as importantly, the detailed description to the patent's preferred embodiment also stresses that the point where the angle is to be measured is where the metallic skins actually meet. Specifically, when describing the depiction of the particular angle in question, the patent states that the "[s]econd metallic parts 32 are bent toward one another at a substantially ninety degree angle *relative* to the first parts 30." (Column 4, lines 15-17 (emphasis added)). This description makes plain that which is implicit in the claim language itself: The angle in question is to be measured by looking at the edge created where point 30 is bent toward point 32.

In support of its construction that the angle in question is measured across the entire face of the opening to the female portion of the interlock mechanism, Elite directs the Court's attention to the opinion of its expert Mr. Dixon, wherein he opined that the claim language is limited to "considering the angle made across the face of the opening of the portion of the panel that receives the interlock (i.e., the 'female' portion of the panel)," because if the angle requirement was also imposed to "each side of the opening" (that is, the

physical edge along the female portions of the panel), then such a requirement "would impede the functioning of the panel interlock." (Decl. Lawrence Hadley, Ex. 5 at 3). Of course, nowhere does Mr. Dixon explain why applying the "substantially ninety degree angle" to each corner or edge of the female opening to the interlock compromises the functioning of the device; he simply declares this to be so.

Moreover, Elite's other expert, Mr. Daniel Cooke, gave a response in his deposition that actually supports the Court's construction of the term. Specifically, Mr. Cooke stated that the claim language referred to where "[n]umber 32 on the top and bottom facing needs to be 90 degrees from the top and bottom facing." (Decl. George L. Baugh, Ex. 6, at 26:7-9). In other words, the angle is formed where 32 meets 30, and one measures the angle in question at the meeting point between 30 and 32.

Squirrel Hollow's expert, Robert Walz, agreed during his deposition that the measurement point for the angle called for in the claim language is "not specified." (Decl. Lawrence Hadley, Ex. 8 at 32). Nonetheless, Mr. Walz opined that the angle in question to be measured was the one formed along the edges or corners to the facing of the female portion of the interlock device meet. (Decl. Lawrence Hadley, Ex. 8 at 32-33 ("It's between 30 and 32. It's the intersection between 30 and 32")). Admittedly, Mr. Walz appears to later contradict himself on this point during his deposition ( *see* Decl. Lawrence Hadley, Ex. 8 at 33), but to read this contradiction as an "admission" as Elite seeks to do is an overstatement given that the "admission" follows immediately upon the opinion just cited and appears to the Court in context to be the result of the expert being confused by the nature of the question being posed by Elite's counsel.

Accordingly, the Court agrees with Squirrel Hollow's construction that the angle in question is to be measured along the physical edge where points 30 and 32 meet on the female portion of the interlock device.

## ***2. How Much Divergence from a Ninety Degree Angle is Allowed***

The parties also diverge on how much variance from ninety degrees is allowed under the claim language that provides for "a substantially ninety degree angle." Squirrel Hollow seeks to construe the claim as requiring a precise numerical specification, namely, that the angle in question must be within one or two degrees of ninety degrees. Elite, on the other hand, seeks as much breadth as possible in interpreting the term "substantial." Elite's expert, Mr. Dixon, has interpreted the claim language to allow a divergence of up to ten degrees from a ninety degree angle to fall within the claim language's call for a "substantial" ninety degree angle. (Decl. George L. Baugh, Ex. 5 ("Female edge 1. 90 (deg.) bend (plus-or-minus sign) this bend could be (plus-or-minus sign) 10 (deg.) and not impact function of interlock")). Admittedly, Elite does not go so far as its expert in its proposed construction of the term, leaving "substantial" to mean "approximately."

The problem in trying to give such a precise numerical range for the term stems from the imprecision inherent in the term "substantial" itself; a result probably not unintended by the inventor. As one district court perceptively observed:

Courts are in a bind when it comes to construing the word "substantially." On the one hand, the court has a duty according to *Markman* to construe the word to provide guidance to the jury as to the proper scope of the claim for determining infringement. This duty is particularly important when the parties' experts have testified to conflicting mathematical ranges required by the claim. Moreover, the ordinary meaning of the word "substantially"- "in a substantial manner" or "so as to be substantial"-is practically useless as a guide to understanding or decision. On the other hand, a court should not impose mathematical certainty on a word

when none exists. Often the claims, the specification, the prosecution history, and even all the extrinsic evidence will fail to provide any reasonable basis for selecting a mathematical range.

Thorn EMI North America, Inc. v. Intel Corp., 936 F.Supp. 1186, 1198-99 (D.Del.1996); Ecolab, Inc. v. Envirochem, Inc., 264 F.3d 1358, 1367 (Fed.Cir.2001) ("We note that like the term 'about,' the term 'substantially' is a descriptive term commonly used in patent claims to 'avoid a strict numerical boundary to the specified parameter"). The same principle applies here.

It is clear to the Court that use of the term "substantially" in the patent was meant as a word of approximation. The term is used in reference to a particular number or parameter, here, a ninety degree angle, and seeks to cabin how close or approximate the actual angle formed at where 30 and 32 meet must be to that particular number. *See* Epcon Gas Sys., Inc. v. Bauer Compressors, Inc., 279 F.3d 1022, 1031 (Fed.Cir.2002) (finding that claim term " 'substantially constant' denotes language of approximation, [that is, insubstantial difference,] while the phrase 'substantially below' signifies language of magnitude, i.e., not insubstantial [or insignificant]"); 6 DONALD S. CHISUM, CHISUM ON PATENTS s. 18.07[2] at 18-1193 ("In claiming a characteristic of a product or process, patentees commonly use numeric limitations and ranges and often hedge the edges of a number, range or other limitation with words of approximation").

The ordinary meaning for substantially, when used as a word of approximation, is that something is "very close to" or "largely" or "essentially" the point being compared to. *See* Peering Precision Instr. v. Vector Distrib. Sys., 347 F.3d 1314, 1323 (Fed.Cir.2003) (" 'substantially' can mean 'significantly' or 'considerably' [it] can also mean largely' or 'essentially' "); EMI Group North America, Inc. v. Intel Corp., 157 F.3d 887, 895 (Fed.Cir.1998) (affirming construction of claim term "substantially aligned" and "substantially zero overlap" as meaning "the same as or very close to perfect alignment" and "the same as or very close to zero overlap"); Amhil Enter. Ltd. v. Wawa, Inc., 81 F.3d 1554, 1562 (Fed.Cir.1996) (holding that claim term "substantially vertical face" in the patent's claim to a container lid "must be construed as the same as or very close to 'vertical face' "). Unless something in the patent's claim language, specification or prosecution history "clearly and unmistakably" provides otherwise, the term's ordinary meaning controls. *Cordis Corp. V. Medtronic AVE, Inc.*, 339 F.3d 1352, 1361 (Fed.Cir.2003).

Nothing in the Court's review of the patent's claims or specification indicates that some strict numerical boundary was intended.FN3 Rather, the opposite is true. The patent makes repeated use of the term "substantially" without ever seeking to narrow that term's otherwise ordinary meaning. (Column 2: 26-27, 35-36; Column 4: 20-21, 40-41). This effort to allow some variance from a ninety degree angle is reflected in the detailed description of the invention's preferred embodiment. There it notes the apparently perfect ninety degree angle contained in the drawings of the invention are not meant to be that exact, but instead only that the metallic parts in question must be "bent toward one another at a substantially ninety degree angle." (Column 4:15-16; *see also* Column 2: 20-23). Clearly, the patent envisions some amount of deviation from a true ninety degree angle. The question is how close is close enough? Again, nothing in the claim language or the specification suggests any precise numerical range; instead, the matter is left to the more inexact standard imposed by the ordinary meaning of the term "substantially." "[W]ords of approximation, such as 'generally' and 'substantially,' are descriptive terms 'commonly used in patent claims 'to avoid a strict numerical boundary to the specified parameter.' " *Playtex Prods., Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 907 (Fed.Cir.2005) (quoting *Anchor Wall Sys. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1311 (Fed.Cir.2003)). That the patent repeatedly uses such a general descriptive term without ever seeking to more precisely cabin its otherwise ordinary meaning compels the conclusion that the term's ordinary meaning controls.

Squirrel Hollow responds that Elite's own expert, Jack Dixon, testified at his deposition that the "margin of error" with respect to the bend that forms substantially a ninety degree angle on the *male* portion of the interlock must be within "one or two degrees." (Decl. George Baugh, Ex. 4 at 49-51). Mr. Dixon's own notes produced at his deposition confirmed this exactness. His notes contained the expression that "the critical part is that opposing facings [on the male interlock], formed 90 (deg.) (plus-or-minus sign) be exactly 90 (deg.) across." (Decl. George Baugh, Ex. 5). As Mr. Dixon stated at his deposition, "if it's 75 degrees, it won't work...." (Decl. George Baugh, Ex. 4 at 168). Mr. Dixon attempted, however, to argue that the resulting angle on the *female* interlock did not require as much precision, a 10 degree variance from a ninety degree angle being acceptable. (Decl. George Baugh, Ex. 5).

Squirrel Hollow argues that the angle formed along the female portion does not stand alone, but is made in relation to the complimentary section of the male portion of the interlock. To read the language as only affecting the face to the female portion without considering any effect on the conjoining male portion would serve to separate the device into two separate and unrelated devices, the very antithesis of the purpose and functioning of an "interlocking mechanism."

This point in fact was made by Mr. Dixon during his deposition. Mr. Dixon noted in his report that the purpose for maintaining a substantial ninety degree angle "is [the] need for the interlock at top and bottom to both simultaneously engage and lock within the next panel." (Decl. Lawrence Hadley, Ex. 4 para. 2). He reinforced this point later during his deposition when he stated that "the bend at 19A on the male side [of the interlock] being the most critical" with respect to the functionality provided by the ninety degree angle. (Decl. George Baugh, Ex. 4 at 44-47). Then later, in reference to the female side, Mr. Dixon testified that the margin of error of the resulting angle formed would be plus or minus two degrees.

Q. Going back, however, to that first 90 degree turn or angle, did you discuss with [plaintiff] the margin of error or margin of variance of that 90 degree angle?

A. Yes.

Q. What is that?

A. Well, I don't think we put a specific variance on it. My experience is that when you roll form metal you say you bent it 90 degrees, but it's never going to be 90 in the end result; it could be 91 or 89. It has memory and wants to come back to its original state, which was the flat sheet. But that degree of that first bend is not that critical.

Q. How critical is it?

A. Well, I don't know-I don't know that I would put a plus or minus on it, but I would say plus or minus 2 degrees. That's an estimate, not a fact.

(Decl. George Baugh, Ex. 4 at 49-50). Mr. Dixon then testified similarly with respect to the male portion of the interlock:

Q. That is the corresponding bend to the 90 degree angle we just discussed on the male side; correct?

A. Correct.

Q. Would your testimony be the same about the margin of error, so to speak, on that bend?

A. Yes.

Q. One or two degrees?

A. Right.

( *Id.* at 50-51).

Mr. Dixon further testified about the complimentary nature of the angles formed on the male and female portions of the interlock. He explained that, together, the two must form a 180 degree angle.

Q. So it has to be in the same plane as the interfacing component of the female?

A. Correct.

Q. So they have to be-is that complementary?

A. I guess that's as good a word as any.

Q. So they equal, between the two of them-essentially, the surfaces of the adjoining panels are flat?

A. Right.

Q. So if for instance-what point did you call that on the male, what numbered point?

A. 19A, apple.

Q. So if 19A was instead of 90 degrees it was say a hundred degrees, going toward the protrusion-do you understand what I'm saying?

A. Yes.

Q. Then that would mean that correspondingly the angle on the female side that adjoins would have to be 80 degrees; is that correct?

A. Correct

( *Id.* at 46-47).

Yet despite the admitted "complimentary" nature of the angles formed on each side of the interlock mechanism, Mr. Dixon opines that the angle formed along the edges to the female portion need only be within plus or minus 10 degrees from a ninety degree angle without impacting the functioning of the interlock. (Decl. George Baugh, Ex. 5). The contradictory nature of this opinion in light of Mr. Dixon's prior

statements is best captured by defense counsel:

[W]hile Mr. Dixon tries to justify a less restrictive construction of the term 90 (deg.) as it applies to the first bend in the female end of the panel, he must ultimately return his focus to the overall function of the patented device. While in one breath he says the [edges on the] female side need not be exactly 90 (deg.) to function, in the next breath he states a variance would throw the rest of the device off, so that it would not work. Then, in the next breath he says the male end **MUST** be exactly 90 (deg.), which, having said the two angles together must equal 180 (deg.), of course, means the angle on the female end must also be 90 (deg.)."

(Defs' Reply at 11).

All that said, Mr. Dixon's testimony is nothing more than extrinsic evidence. Nothing in the patent's intrinsic evidence requires such a precise and specified numerical range. That later experts can agree to such a precise numerical range does not mean that the public records for the patent compel such a range. The Court is hesitant to impose such precision on account of external forces to a document that neither contains nor calls for such mathematical precision. *See Phillips*, 415 F.3d at 1319 ("undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the 'indisputable public records consisting of the claims, the specification and the prosecution history,' thereby undermining the public notice function of patents").

Undoubtedly Mr. Dixon's deposition testimony will provide grist for cross-examination in this case, but such "admissions" on his part are a completely separate question than the issue here—the meaning of claim terms in the patent. That Mr. Dixon may have made statements agreeing with Squirrel Hollow's ultimate position that anything greater than a couple of degrees from a ninety degree angle is not "the same as or very close to a ninety degree angle" is nothing more than him putting a gloss on the claim language's meaning.

Accordingly, the Court construes the claim language "a substantially ninety degree angle" to mean an angle that is the same as or very close to a ninety degree angle.

### ***c. Substantially equal to the depth of said channels***

Construction of this claim language essentially turns on the prior construction of the term "overlie." (Defs' Reply at 21-22). If, as Squirrel Hollow suggests, overlie means that there must be continuous contact between the metal skin and the foam core, then it argues this claim language must similarly require that the parts in question must extend to the depth of the channels so as to make contact between the apex 35 and the surface 23. (*Id.*) Given that the Court has already found that "overlie" does not require such continuous contact, the Court adopts Elite's proposed construction, but with the modification that, consistent with the Court's construction of the term "substantially" elsewhere in the patent, that the phrase "the same as or very close to" is substituted for Elite's use of the word "approximate."

Squirrel Hollow again argues that Elite's expert has made statements during his deposition that provide a more precise numerical range. Mr. Dixon opined that the language in question was meant to demonstrate "[a]djustment to keep the surface of each adjacent panel in the same plane within manufacturing tolerances" so that "the panels adjacent to each other are then able to achieve a uniform appearance and the lock is fully seated." (Decl. Lawrence Hadley, Ex. 4 para. 3). He then gave the following construction for the claim language, which Elite seeks for this Court to adopt: "The meaning of this term requires the distance from

the outer edge of the panel to the apex made by the bending of the 'third part' and 'fourth part' in the patent to be approximately the same as the depth of the channel." All that said, Mr. Dixon provided a much more precise construction of the claim language in his deposition, stating that, while the apex need not touch the bottom of the channel, it must come within "a 32nd of an inch, a few thousandths. It should be on the minus side, not the plus side. If it is on the plus side then the joint is going to look like the devil" as the joint will "buckle." (Decl. George Baugh, Ex. 4 at 48).

Squirrel Hollow will undoubtedly have much ammunition on cross-examination of Mr. Dixon during the trial of this case, but that is it. Mr. Dixon's admission only provides a gloss on the claim language's otherwise ordinary meaning that was nowhere rejected or called into doubt in the patent itself.

#### **d. *Forming a flat***

What does the claim language mean when it says that the area at 38 and 23 must form a flat? Elite's proposed construction seeks to emphasize the purpose or function the "flat" is meant to perform, whereas Squirrel Hollow's proposed construction emphasizes the part's physical quality—the "flatness" for want of a better phrase. The Court believes both parties are correct.

Elite repeatedly emphasizes in its papers that the patent's specification uses the term "flat" in connection with the interlocking panels' lateral movement in relation to one another. The function served by the flat is expressed in the patent's specification itself. For instance, the abstract to the patent specification states that "a flat is formed in one of the metal skins to introduce flexibility and play into the interlocking mechanism ... [that] enable[s] adjacent panels to be interlocked to one another by a straight-in movement and by an angular movement known as a rock and lock." Similarly, the summary of the invention also emphasizes the allowance for lateral movement with reduction in friction as the flat's central purpose and indeed, the device's central innovation over the prior art. (Column 2: lines 46-51).

All that said, discussion of the flat's function says nothing as to whether the word "flat" also signifies a particular type of surface. Must the surface in question be completely flat, or is it enough for it to be flat for some portion in order to accomplish its function? Squirrel Hollow's construction reads the term "flat" to mean that the surface in question must itself be flat. The Court agrees. The term is not modified by any descriptive term, such as "about" or "substantially" (terms which the patent uses elsewhere when it seeks to provide such wiggle room in the geometric dimensions of the part in question). Instead, it is left unadorned: The area in question must form "a flat." This undermines Elite's assertion that the patent contemplates that the surface in question need only be "sufficiently flat" to permit lateral movement. (Pl's Reply at 3). If this is what the patent called for, it would have qualified the meaning of the term flat solely in relation to its function, or, even better yet, used certain descriptive modifiers to emphasize that the area only need be flat enough to accomplish its task.

Undoubtedly, the patent makes mention of the function the flat serves, but nowhere does it define the term so that the flat that is formed only has to be sufficiently flat to perform that function. Similarly, the drawings of the invention's preferred embodiment do not evince (literally) any wiggle room on the flatness of the area. The surface in question is drawn to be perfectly flat. Indeed, the detailed description to those drawings notes that the flat formed is the same "as [that] depicted" in the drawings. (Column 4: 31). Finally, the summary to the invention alternatively describes the surface of the area in question as "two *linear* edges," which only reinforces the point that the surface in question is a flat line, not that it is "sufficiently" flat. (Column 2: 45 (emphasis added); *see also* Column 2: line 38 (again describing area in question as "a linear edge")).

The best and most comprehensive construction for the claim language would be to combine the parties' proposed constructions together so as to emphasize both the physical quality of the area in question as well as the function to be served by said area. The Court therefore adopts the following construction: "A planar surface that allows lateral movement within the interlock connection in a parallel relationship to the top and bottom surfaces of the metallic skin."

## 2. The '963 Patent

Here, the Court is called upon to construe the following terms in Elite's '963 patent: "a tight interlock fit" and "an edge to edge insulating fit." FN4

Each parties' claim construction of these terms in the '963 patent is as follows:

<b>Disputed Term</b>	<b>Elite's Proposed Claim Construction</b>	<b>Squirrel Hollow's Proposed Claim Construction</b>
"A tight interlock fit"	Tight enough that a positive lock is obtained that requires disengagement by longitudinally sliding the panels	Of the proper size and shape to allow a close connection such that the two parts are fixed firmly together
"An edge to edge insulating fit"	Of the proper size and shape such that the insulating characteristics of the rigid foam core are maintained, which allows for the existence of a space between the complementarily sculpted edges of the rigid foam core	Of the proper size and shape such that the entire outer surface of the inwardly projecting dish-shaped geometric configuration meets the entire outer surface of the outwardly projecting geometric shape so as to effectively reduce the passage of heat

### a. *Tight interlock fit*

Elite states that the '963 patent refers to adjacent panels being "locked together," and comprising a "rigid wall building structure," but nowhere seeks to give specific meaning to the term "tight." (Pl's Mot. at 17). Undoubtedly, the panels interlock and fit together, but the claim language goes on to say that the resulting fit must be a "tight" one. That is why the abstract to the '963 patent observes that, when the panels are interlocked together, they do so "to form a tight fit." Elite turns to its expert's opinion to support its construction of the term. Mr. Dixon, although admitting that Squirrel Hollow's expert was not wrong, objected to Squirrel Hollow's expert opinion that a tight interlock fit meant that the panels in question must be "fixed firmly together" because somehow this would not take into consideration the fact that the panels must be "connected in such a way that they can later be disengaged." (Decl. Lawrence Hadley, Ex. 5 at 4). The problem with this qualifier is that nowhere in the '963 patent does it speak of the panel's ability to disengage one another. To the contrary, the patent instructs solely on how to shape the panels' interlocking faces so that can snap into place; that is, about how the panels engage one another. During his deposition, Mr. Dixon similarly testified that he only objected to Squirrel Hollow's expert choice of words "firmly." (Decl. George Baugh, Ex. 4 at 131). In the end, the parties only squabble over whether the word "firmly," as opposed to "positive lock," should be used to describe the resulting fit between the two panels.

Given that Elite's proposed construction nowhere seeks to give meaning to the tightness of the resulting lock, and given that Squirrel Hollow's construction does, the Court adopts Squirrel Hollow's proposed construction.

## b. *Edge to edge insulating fit*

Here, the parties squabble over whether the edges of the interlocking panels must "meet." According to Elite's expert, the '963 patent "allows for the existence of space between the outer surfaces of the two edges as long as such space still maintains proper insulation." (Decl. Lawrence Hadley, Ex. 5 at 4). Elite's expert further stated that, "where the male and female first 90 degree bends approach each other," there is an air space between the two, with the air forming "an insulating component of the structure." (Decl. George Baugh, Ex. 4 at 132). Mr. Dixon admitted, however, that nothing in the patent specifically called for the air space he noted. ( *Id.* at 134-135). Indeed, Elite's proposed construction nowhere cites to any intrinsic evidence on this question. Its failure to do so is not because there is no evidence to discuss.

The summary of the invention specifically states that "[t]he foam core from adjacent panels *meet* in an edge to edge configurations as the respective interlock elements are snapped together." (Column 1: lines 46-49 (emphasis added)). The patent's call for the panels to meet one another for insulation purposes is also picked up in the detailed description of the invention's preferred embodiment: "When adjacent panels are locked together edge 30 rides up and over ramp 38 and snaps into channel 36 of edge 32. At the same time edges 22 and 24 of the core *abut* to form a tight insulating structure." (Column 2: lines 44-47 (emphasis added)). What is significant about the use of the term "abut" is not only that it suggests contact between the two panels at the point in question, *see* MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 5 (10th ed.1999) (defining "abut" to mean "to touch along a border or with a projecting part," and "to terminate at a point of contact"), but that Elite itself has noted the contact-nature of the term "abut" in construing the '9 patent's use of the term in relation to how to construe "overlie." (Pl's Reply at 3-4).

Elite, however, also argues that Squirrel Hollow's expert Mr. Walz agreed that air has insulating qualities and that the insulating fit could be maintained even with a space between the interior edges of the Styrofoam insulating layer, provided that the space was not so large as to allow convection of the air currents. The problem with this argument is two-fold: First, Elite has never provided a copy of this portion of Mr. Walz's deposition testimony. More importantly, this "concession" by Squirrel Hollow's expert is no more illustrative of the meaning of the claim term than when Squirrel Hollow sought to do the same with Elite's expert's statements. Extrinsic evidence, like the statements of experts, cannot contradict intrinsic evidence. It may serve as ammunition during cross-examination, but at best such statements serve to put the expert's gloss on the otherwise ordinary meaning of the claim's term as disclosed by the patent itself. The Court therefore adopts Squirrel Hollow's proposed construction of the claim term.

Accordingly, the terms of the '9 and '963 Patents are construed by the Court as follows:

TERM	CONSTRUCTION
1. "Overlie said channels"	To lie over, but does not require continuous contact between metallic skin and foam core
2. "Substantially Ninety Degree Angle"	An angle formed by the bending of two planar parts of the cantilevered end of the metallic skin that is the same as or very close to a ninety degree angle as measured at each edge of the opening
3.	The distance from the transversely extending peak created by the third and fourth parts to

- "Substantially equal to the depth of said channels" the outer metallic skin of the inwardly extending second edge is the same as or very close to the same distance from the bottom wall of the channel with the overlying metallic skin to the outer metallic skin on the protruding first edge of the foam core
4. "Forming a flat" A planar surface that allows lateral movement within the interlock connection in a parallel relationship to the top and bottom surfaces of the metallic skin
5. "Tight Interlock Fit" Of the proper size and shape to allow a close connection such that the two parts are fixed firmly together
6. "Edge to edge insulating fit" Of the proper size and shape such that the entire outer surface of the inwardly projecting dish-shaped geometric configuration meets the entire outer surface of the outwardly projecting geometric shape so as to effectively reduce the passage of heat

FN1. Squirrel Hollow seeks for the Court to construe the following additional terms in the '9 patent: "a top and bottom channel," "said flat" as used in claim 2 to the '9 patent, "about ninety degrees" as used in claim 3 to the '9 patent, and "about forty-five degrees" as used in claim 4 to the '9 patent. As Elite never sought such a construction of those terms in its opening brief, the Court does not have full exposition of the parties' position on those terms. At the *Markman* hearing, the Court informed counsel that it would not construe these additional terms, but that if Squirrel Hollow wished for such additional construction of terms it could file motion for a second *Markman* hearing. Accordingly, the present order will focus only on those terms where both sides have put forward competing construction of terms in the patents at issue.

FN2. Squirrel Hollow also points to yet another portion of the description of the preferred embodiments wherein it is mentioned that the "metallic skin [of the panel itself] overlies said top and bottom surfaces." This description is merely describing the fact that the metallic skin serves as the facing for the entire panel; nowhere does this description make mention that such metallic skin is in contact with the underlying foam core, only that it lies on top of the same.

FN3. Neither side presented the '9 or the '963 patents' prosecution history as evidence in either their briefs or during the *Markman* hearing itself.

FN4. Squirrel Hollow also seeks for the Court to construe the following additional terms in the '963 patent: "a V-shaped projection," "a ramp and a groove behind the ramp," "light weight aluminum," and "insulating Styrofoam sheet." As Elite never sought such a construction of those terms in its opening brief, I do not have its position on those terms. Accordingly, the memorandum will focus only on those terms where both sides have put forward competing construction of terms in the patents at issue.

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