

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

PROMETHEAN INSULATION  
TECHNOLOGY LLC,

Plaintiff,

v.

REFLECTIX, INC., ET AL.,

Defendants.

Case No. 2:15-cv-00028-JRG-RSP  
***LEAD CASE***

**MEMORANDUM OPINION AND ORDER**

Before the Court is the opening claim construction brief of Promethean Insulation Technology LLC (“Plaintiff”) (Dkt. No. 44, filed on October 6, 2015),<sup>1</sup> the response and motion for partial summary judgment of indefiniteness of Reflectix, Inc., SOPREMA, Inc. (United States), SOPREMA, Inc. (Canada), and SOPREMA U.S.A., Inc. (collectively “Defendants”) (Dkt. No. 48, filed on October 20, 2015), and the reply of Plaintiff (Dkt. No. 49, filed on October 27, 2015). The Court held a hearing on the issues of claim construction and claim definiteness on November 17, 2015. Having considered the arguments and evidence presented by the parties at the hearing and in their briefing, the Court issues this Order.

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<sup>1</sup> Citations to the parties’ filings are to the filing’s number in the docket (Dkt. No.) and pin cites are to the page numbers assigned through ECF.

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## **I. BACKGROUND**

Plaintiff alleges infringement of U.S. Patent No. 8,936,847 (the “’847 Patent”). The ’847 Patent is entitled “Metallized Polymeric Film Reflective Insulation Material” and names a single inventor, Furio Orologio. The application leading to the ’847 Patent was filed on November 8, 2012 and the patent issued on January 20, 2015. The ’847 Patent is related through a foreign priority claim and a series of continuation, divisional, and continuation-in-part applications to a Canadian patent application filed on April 19, 2006. In *Promethean Insulation Tech. LLC v. Sealed Air Corp., et al.*, No. 2:13-cv-1113-JRG-RSP, the Court considered several of the patents in this priority chain.

In general, the ’847 Patent is directed to insulation materials that incorporate a reflective metallized polymeric film to effect an improved fire rating over reflective insulation materials that incorporate a reflective metal foil.

The abstract of the ’847 Patent provides:

The invention relates to a reflective insulation material product including a metallized polymeric film laminated to an insulation material with the metallized polymeric film having its exposed metallic surface facing away from the insulation material. The product can meet Class A standard thermal insulation material standards characterized by a flame speed rating of from 0 to 25 and a smoke developed rating value of 0 to 450.

## **II. LEGAL PRINCIPLES**

### **A. Claim Construction**

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388

F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds).

“The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). First, a term’s context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[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.” *Id.* (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Although extrinsic evidence can also be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might

use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* The Supreme Court recently explained the role of extrinsic evidence in claim construction:

In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning”). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the “evidentiary underpinnings” of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

*Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

## **B. Departing from the Ordinary Meaning of a Claim Term**

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”<sup>2</sup> *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d

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<sup>2</sup> Some cases have characterized other principles of claim construction as “exceptions” to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting Solutions*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Id.* (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee’s lexicography must appear “with reasonable clarity, deliberateness, and precision.” *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee’s statements in the specification or prosecution history must amount to a “clear and unmistakable” surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 (“The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”) “Where an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredgar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

**C. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)<sup>3</sup>**

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). If it does not, the claim

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<sup>3</sup> As the application for the ’847 Patent was filed after September 16, 2012, the effective date of the America Invents Act (“AIA”), the AIA version of 35 U.S.C. § 112 governs. Since § 112(b) (AIA) is substantially identical to § 112, ¶ 2 (pre-AIA), the Court applies pre-AIA precedent on the issue of definiteness.

fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 2124. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Id.* at 2130. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *Id.* at 2130 n.10. “[I]ndefiniteness is a question of law and in effect part of claim construction.” *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, “the court must determine whether the patent provides some standard for measuring that degree.” *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is used in a claim, “the court must determine whether the patent’s specification supplies some standard for measuring the scope of the [term].” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005); *accord Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Datamize*, 417 F.3d at 1351).

### III. CONSTRUCTION OF AGREED TERMS

The parties have agreed to the following constructions set forth in their Amended Joint P.R. 4-5(d) Claim Construction Chart (Dkt. No. 51):

Term <sup>4</sup>	Agreed Construction
“is exposed” <ul style="list-style-type: none"> <li>• Claims 1, 56, 57, 60, 66</li> </ul>	The reflective metallized layer with the lacquer coating positioned externally to the polymeric material such that the reflective

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<sup>4</sup> For all term charts in this order, the claims in which the term is found are listed with the term but: (1) only the highest level claim in each dependency chain is listed, and (2) only asserted claims identified in the Amended Joint P.R. 4-5(d) Claim Construction Chart (Dkt. No. 51) are listed.



Term <sup>4</sup>	Agreed Construction
<p>“exposed”</p> <ul style="list-style-type: none"> <li>Claims 16, 17, 19, 36</li> </ul>	<p>metallized layer of the thermoplastic film faces away from the polymeric material. (Claim 1)<sup>5</sup></p> <p>The reflective metallized layer with the lacquer coating positioned externally to the bubble pack assembly such that the reflective metallized layer of the thermoplastic film faces away from the bubble pack assembly. (Claim 57)</p> <p>The reflective metallized layer with the lacquer coating positioned externally to the multilayer assembly such that the reflective metallized layer of the thermoplastic film faces away from the multilayer assembly. (Claim 60)</p>

Having reviewed the intrinsic and extrinsic evidence of record, the Court agrees with and hereby adopts the parties’ agreed constructions.

#### IV. CONSTRUCTION OF DISPUTED TERMS

The parties’ sole claim-construction dispute is whether the terms “flexibility for potential wrapping applications” and “flexible for potential wrapping applications” (the “Flexible Terms”) render any claim indefinite. (Dkt. No. 51-1).

Disputed Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>“flexibility for potential wrapping applications”</p> <ul style="list-style-type: none"> <li>Claims 1, 19</li> </ul>	No construction necessary.	Indefinite.
<p>“flexible for potential wrapping applications”</p> <ul style="list-style-type: none"> <li>Claim 36</li> </ul>	No construction necessary.	Indefinite.

<sup>5</sup> In its reply brief, Plaintiff explained that a common construction for the exposed limitations would apply to Claims 1, 16, 17, 19, 36, 56, and 66. Dkt. No. 49 at 5.

Because the parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

### **The Parties' Positions**

Plaintiff submits that the Flexible Terms “merely require that the claimed reflective insulation product be flexible enough to enable its use in potential wrapping applications, *i.e.*, such as wrapping a pipe or duct work.” (Dkt. No. 44 at 14). Plaintiff further submits that the issue of indefiniteness was expressly and successfully addressed in prosecution of the application which issued as the '847 Patent, when Plaintiff (as the patent applicant) explained that the Flexible Terms mean that the product “definitely” has “flexibility of such a nature that it can be used for wrapping applications,” whether or not it is used in a wrapping application. (*Id.* at 14–15). And Plaintiff submits that the '847 Patent provides examples of wrapping applications, such as wrapping of “water heaters, pipes and the like.” (*Id.* at 15). Finally, Plaintiff submits that the terms “flexible” and “flexibility” are readily understood terms that have appeared in claims in over 900,000 issued patents. (*Id.* at 14–15).

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position. **Intrinsic evidence:** '847 Patent col.1 ll.17–20; '847 Patent File Wrapper, Response to Office Action Mailed January 15, 2014 (excerpts) (Plaintiff's Ex. 12, Dkt. No. 44-12). **Extrinsic evidence:** List of Results of Search of U.S. Patent Collection Database for “flexibility” or “flexible” in the claims (undated) (Plaintiff's Ex. 13, Dkt. No. 44-13).

Defendants respond that independent Claims 1, 19, and 36 require the insulation product to be “sufficiently flexible” for “potential wrapping applications.” (Dkt. No. 48 at 4). And, Defendants' argue, because the range of “potential wrapping applications” is unbounded, the degree of flexibility is undefined. (*Id.* at 3–5). Defendants thus conclude that one of skill in the

art cannot reasonably ascertain whether a particular product is “sufficiently flexible,” and the claims are therefore indefinite. (*Id.*) Defendants further argue that Plaintiff (as the patent applicant) essentially conceded that an undefined level of flexibility renders the claims indefinite when it conceded in prosecution that the term “potentially flexible for wrapping applications” would render claims indefinite. (*Id.* at 4–5).

In addition to the claims themselves, Defendants cite the following *intrinsic evidence* to support its position: ’847 Patent File Wrapper, February 28, 2014 Response to Office Action Mailed January 15, 2014 (Defendants’ Ex. A, Dkt. No. 48-1).

Plaintiff replies that the Flexible Terms mean the product is definitely flexible, and that the word “potential” in the terms means that product can be—but need not be—used in a wrapping application. (Dkt. No. 49 at 6). Plaintiff further replies that the patent provides “specific examples of such flexible wrapping applications.” (*Id.*) And Plaintiff argues that the terms do not render any claim indefinite because one of ordinary skill in the art would understand if a particular product has such flexibility as to be outside the scope of the claims. (*Id.* at 7).

### **Analysis**

The dispute over these terms distills to whether the ’847 Patent provides enough guidance regarding how flexible the material must be to be suitable for “wrapping applications.” Because the Court determines that the patent provides adequate guidance for the required degree of flexibility, the Court holds that the terms are definite.

“Flexible” and “flexibility” are used in the claims as terms of degree. As Plaintiff stated in its opening brief, the terms require the claimed product to be “flexible enough” for wrapping applications. (Dkt. No. 44 at 14). And Plaintiff, as the patent applicant, clarified in the

prosecution history that the term “flexibility for potential wrapping applications” requires a degree of flexibility—“flexibility of such a nature that [the product] can be used for wrapping applications.” February 28, 2014 Response to Office Action Mailed January 15, 2014 at 19 (Dkt. No. 48-1 at 20).

As the terms are terms of degree, “the court must determine whether the patent provides some standard for measuring that degree.” *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015). This standard must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Id.* at 1379 (quoting *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014)) (emphasis in original). “The degree of precision necessary for adequate claims is a function of the nature of the subject matter.” *Id.* at 1382 (quoting *Miles Labs., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875 (Fed. Cir. 1993)) (quotation modification marks omitted). But “absolute or mathematical precision is not required.” *Id.* at 1381 (quoting *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371–72 (Fed. Cir. 2014)).

The '847 Patent provides a standard for determining whether a particular degree of flexibility satisfies the flexible and flexibility limitations. The claim language itself states that the claimed product must be flexible for “wrapping applications.” *See, e.g.*, '847 Patent col.24 ll.48–49 (Claim 1) (“wherein the reflective insulation product . . . has flexibility for potential wrapping applications”). And the patent provides examples of the kind potential wrapping applications contemplated:

It is an object of the present invention to provide metallized polymeric film reflective insulation material having Class A thermal insulation properties, particularly, metallized bubble pack insulation material for use in . . . wrapping for water heaters, pipes and the like.

*Id.* at col.4 l.62 – col.5 l.4; *see also*, col.1 ll.31–44 (“metal foil bubble-pack is used as

. . . wrapping for hot water heaters, hot and cold water pipes, air ducts and the like”). The patent discloses insulation suitable to wrap objects of a size comparable to water heaters, water pipes, and air ducts. As such, the patent provides a standard for sufficient flexibility. Even though the patent does not numerically state a minimum degree of flexibility, one of ordinary skill in the art would understand that material that was not flexible enough to wrap objects of a size comparable to that of water heaters, water pipes, and air ducts would not satisfy the flexible or flexibility limitations. For example, Defendants posited a hypothetical material that is flexible enough to wrap an object with a 12-foot diameter (the fuselage of a 757 jet), but not flexible enough to wrap around an object with a 18-24” diameter (a water heater). Contrary to Defendants assertion, one of ordinary skill in the art reading the patent specification would understand that material not sufficiently flexible to wrap a water heater would fall outside the scope of the flexible/flexibility limitations, regardless of whether that material was flexible enough to wrap a much larger object. Therefore, the Flexible Terms are not indefinite.

## V. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed and agreed terms of the '847 Patent. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury.

**SIGNED this 16th day of December, 2015.**

  
ROY S. PAYNE  
UNITED STATES MAGISTRATE JUDGE