IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

THE DOW CHEMICAL COMPANY, Plaintiff, v. NOVA CHEMICALS CORPORATION (CANADA) and NOVA CHEMICALS INC. (DELAWARE), Defendants.	)	C.A. No. 05-737 (JJF) **PUBLIC VERSION**

DOW'S ANSWERING CLAIM CONSTRUCTION BRIEF

MORRIS, NICHOLS, ARSHT & TUNNELL LLP
Rodger D. Smith II (#3778)
1201 N. Market Street
P.O. Box 1347
Wilmington, DE 19899-1347
(302) 658-9200
Attorneys for Plaintiff
The Dow Chemical Company

OF COUNSEL:

Harry J. Roper
Aaron A. Barlow
Raymond N. Nimrod
Darrick J. Hooker
JENNER & BLOCK LLP
330 N. Wabash Avenue
Chicago, IL 60611
(312) 222-9350

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TABLE OF CONTENTS

I. INTRODUCTION 1

II. STATEMENT OF FACTS 2

A. Prosecution History of the '383 Patent 3

B. Prosecution History of the '053 Patent 4

C. Prosecution History of the '023 Patent 5

III. ARGUMENT 6

A. Slope of Strain Hardening Coefficient (SHC) 6

1. Nova's argument raises issues of fact inappropriate for resolution at a *Markman* hearing 6

2. Nova provides the Court with insufficient evidence to support the findings it seeks to have this Court make 8

3. Nova is wrong that a person skilled in the art would not understand how to determine the *slope of strain hardening* 11

a. Units 12

b. Method 14

B. The '053 Patent Claim Terms 16

1. "Homogeneously branched linear ethylene α-olefin interpolymer" 16

a. Nova's CDBI Limitation is Improper 17

b. Nova's "Not Substantially Linear" Limitation is Unnecessary And Could Cause Jury Confusion 17

2. "Heterogeneously branched linear ethylene polymer" 18

a. The Plain Claim Language And Specification Are Contrary To Nova's Proposed Construction 18

b. The Prosecution History Emphatically Confirms That Nova's Construction Is Wrong. 20

3. Comprising 21

C. The '023 Patent Claim Terms 25

1. "(A) ... at least one ethylene interpolymer" 25

a. Nova's Proposed Construction Is Contrary To the Plain Claim Language and The '023 patent Specification. 26

b. Nova Omits Key Events From the Prosecution History. 27

c. The Markovich Declaration Does not Limit the '023 Patent Claims to "Substantially Linear" 29

d. The Statement of Reasons for Allowance Does not Support Nova's Proposed Construction. 30

2. Ethylene Polymer…Comprising A Linear Polymer Fraction.....33

a. "ethylene polymer" 33

b. Linear polymer fraction 35

IV. CONCLUSION.....37

TABLE OF AUTHORITIES

Cases

Abbott Labs v. Andrx Pharm., Inc.,
473 F.3d 1196 (Fed. Cir. 2007) 38

Arthur A. Collins, Inc. v. Northern Telecom, Ltd.,
216 F.3d 1042 (Fed. Cir. 2000) 9

Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.,
249 F.3d 1341 (Fed.Cir. 2001) 34

BJ Servs. Co. v. Halliburton Energy Servs., Inc.,
338 F.3d 1368 (Fed. Cir. 2003) 7

C.R. Bard, Inc. v. U.S. Surgical Corp.,
388 F.3d 858 (Fed. Cir. 2004) 38, 39

Conoco, Inc., v. Energy & Envtl. Int'l. L.C.,
460 F.3d 134 (Fed. Cir. 2006) 19

Elbex Video, Ltd. v. Sensormatic Electronics Corp.,
508 F.3d 1366 (Fed. Cir. 2007) 29, 33

Elkay Mfg. Co. v. Ebco Mfg. Co.,
192 F.3d 973 (Fed. Cir. 1999) 35, 36

Fitzgerald, In re
205 USPQ 594 (CCPA 1980) 36

Free Motion Fitness, Inc. v. Cybex Int'l, Inc.,
423 F.3d 1343 (Fed. Cir. 2005) 25

Halliburton Energy Servs., Inc. v. M-I LLC,
514 F.3d 1244 (Fed. Cir. 2008) 6

Honeywell Int'l, Inc. v. ITT Indus.,
452 F.3d 1312 (Fed. Cir. 2006) 39

Honeywell Int'l., Inc. v. ITC,
341 F.3d 1332 (Fed. Cir. 2003) 8, 13, 17, 18

Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.,
401 F.3d 1367 (Fed. Cir. 2005) 16

Jeneric/Pentron, Inc. v. Dillon Co., Inc.,
205 F.3d 1377 (Fed. Cir. 2000) 24, 26, 27

Lucent Technologies, Inc. v. Newbridge Networks Corp.,
168 F. Supp. 2d 181 (D. Del. 2001) 11

Merck & Co., Inc. v. Teva Pharmaceuticals USA, Inc.,
347 F.3d 1367 (Fed. Cir. 2003) 12

Northern Telecom Ltd. v. Samsung Elecs. Co., Ltd.,
215 F.3d 1281 (Fed. Cir. 2000) 29

Rambus Inc. v. Infineon Techs. AG,
318 F.3d 1081 (Fed. Cir. 2003) 34

Renishaw PLC v. Marposs Societa' per Azioni,
158 F.3d 1243 (Fed. Cir. 1998) 19

Salazar v. Proctor & Gamble Co.,
414 F.3d 1342 (Fed. Cir. 2005) 34, 35

SanDisk Corp. v. Memorex Prods, Inc.,
415 F.3d 1278 (Fed. Cir. 2005) 26

Solomon v. Kimberly-Clark Corp.,
216 F.3d 1372 (Fed. Cir. 2000) 9

Teleflex Inc. v. Ficosa N. Am. Corp.,
299 F.3d 1313 (Fed. Cir. 2002) 19, 22, 33

Telemac Cellular Corp. v. Top Telecom, Inc.,
247 F.3d 1316 (Fed. Cir. 2001) 9, 14

Texas Instruments Inc. v. ITC,
871 F.2d 1054 (Fed. Cir. 1989) 15

Verizon Servs. Corp. v. Vonage Holdings Corp.,
503 F.3d 1295 (Fed. Cir. 2007) 22

Statutes

35 U.S.C. § 112, ¶ 2 ..... 6, 7, 8

I. INTRODUCTION

Dow explained in its Opening Brief that the issues of claim construction before the Court are simple and straightforward because the terms in dispute are defined in the patents themselves. The prosecution history only adds support to Dow's position. Nothing presented in Nova's brief changes any of this.

Nova spends a good deal of its brief dealing with the "slope of strain hardening coefficient" claim term ("SHC"). Nova goes so far as to say that the issue on this term is case dispositive. As with other terms, the SHC claim term is specifically defined in the patents. Despite the definition in the patents, Nova argues that the term is not susceptible to any definition and that the patent claims are therefore invalid, as a matter of law, for indefiniteness. Nova is wrong on the merits as explained more fully below, but all Nova is really doing here is presenting and arguing issues of fact. Such issues of fact have no place in the consideration of the issues of law now before the court. Indeed, it was for this very reason that the Court rejected Nova's similar argument in connection with Nova's motion for judgment on the pleadings. For reasons similar to ones given by the Court in rejecting Nova's earlier argument, the Court should again reject Nova's argument here.

The defects in Nova's other positions are apparent in their severe departures from the accepted law of claim construction. For example, the word "comprising" has one of the simplest and most well accepted meanings in patent law — the meaning equivalent to "including, but not limited to." Yet Nova would give it an exceedingly complex, not to mention erroneous, definition that runs on for eight lines of complex chemical text. In all instances, Nova's positions run afoul of the well-accepted rules of claim construction that are applicable to these *Markman* proceedings.

II. STATEMENT OF FACTS

Nova's statement of the facts omits key aspects of the prosecution histories of the patents-in-suit. Specifically, Nova wants this Court to believe that there are only two patents that issued out of the 54,379 application (the '379 application): the '053 patent and the '023 patent. Nova seeks to create the impression that the '053 patent is directed to "linear" ethylene polymers for component A of its claims, and that the '023 patent is directed only to "substantially linear" polymers for component A. (Component A in Nova's accused products is not a "substantially linear" polymer, and Nova thus hopes to avoid infringement of the '023 patent by arguing that it is limited to "substantially linear" polymers.)

Nova is incorrect. In fact, Nova omits another important patent, which is not at issue here, U.S. Pat. No. 5,677,383 (the '383 patent). (Exh. A.)[1] The '383 patent also grew out of the '379 application and is in fact the one that is limited to "substantially linear" polymers for component A, and that is at least one reason why that patent is not involved in the current suit. (*Id.*, starting at col. 15, l. 58)

A review of all three patents and their prosecution histories shows the error of Nova's position. It shows that the '383 patent – not the '023 patent – is the patent explicitly directed to substantially linear polymers for component A. The '023 patent application was prosecuted after the '383 and '053 patents issued. (D.I. 129, Exh. F. at F-074). After obtaining those patents, Dow submitted a set of claims for the '023 patent application that recited very generic terms for both component A and B. (*Id.*) As the Patent Examiner stated, the claims in the '023 patent were, as to component A, generic to "ethylene interpolymer" (i.e. they were not

[1] The designation "Exh. ___" refers to an exhibit filed concurrently with this document. Exhibits filed earlier are designated "D.I. __, Exh. __".

limited to substantially linear polymers). And as to component B, the component did not need to be heterogeneous. The Examiner said:

> Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant invention are ***generic in scope*** referring to "ethylene interpolymer" and "ethylene polymer" while the claims of the ['383] patent are restricted ***to a species*** (i.e. "homogeneously branched substantially linear ethylene/olefin interpolymer," "heterogeneously branched ethylene polymer") of the generic claim.

(D.I. 129, Exh. F at F-091.)

The '379 application was filed in April 1993. All three patents — the '383, the '053, and the '023 — issued from that application and recite claims written to compositions comprising a first polymer identified as Component A and a second polymer identified as Component B. The prosecution histories of the patents, and the issued claims themselves, show a series of patents with claims directed to different ways of defining Component A and Component B.

A. Prosecution History of the '383 Patent

The application leading to the '383 patent (the '497 application) (not in suit) was filed on October 18, 1995. (Exh. A.) The '383 patent claims priority to the '379 application. The original '379 application included sets of claims reciting homogeneously branched "substantially linear" interpolymers for Component (A) of the claimed composition, and other sets of claims reciting homogeneously branched "linear" interpolymers for Component (A) of the claimed composition. Each continuation application filed thereafter included the same specification, and the same sets of original claims. (D.I. 128, Exh. E at E-004 to E-038; D.I. 129, Exh. F at F-004 to F-040.) Typically, Dow thereafter filed a "Pre-Examination Amendment" to focus the claims for a particular continuation patent application. (*E.g.*, Exh. B at 46-50.)

The '383 patent application included a "Pre-Examination Amendment" that directed that application to claims that explicitly recited "homogeneously branched ***substantially linear*** ethylene/α-olefin interpolymers" for component A. (Exh. B at 46-50.) The claims also explicitly recited that component B must be a ***"heterogeneously branched*** ethylene polymer." (*Id.*). The Pre-Examination Amendment deleted the claims reciting the "linear" ethylene/α-olefin interpolymers for component A. (*Id.*).

The '383 patent issued on October 14, 1997, with claims directed to "homogeneously branched substantially linear ethylene/α-olefin interpolymers" for component A and "heterogeneously branched ethylene polymer" for component B. (D.I. 131, Exh. 1, col. 15, l. 31 to col. 16 l. 61.)

B. Prosecution History of the '053 Patent

The application leading to the '053 patent was filed on April 11, 1997, and claimed priority to the '379 application. (D.I. 131, Exh. 1.) The '053 patent application included a "Pre-Examination Amendment" that directed the claims to "homogeneously branched linear ethylene/α-olefin interpolymers" for component A and "heterogeneously branched ethylene polymers" for component B. (D.I. 128, Exh. E at E-113 to E-119.) The Pre-Examination Amendment deleted the claims reciting the substantially linear ethylene/α-olefin interpolymers. *Id.* In the REMARKS section, the Applicants stated that the "amendments to the claims direct…the claimed invention to the homogeneously branched linear ethylene α-olefin interpolymers. *Id.* (D.I. 128, Exh. E at E-118.)

The Patent Office thereafter issued the '053 patent on December 8, 1998 with claims explicitly directed to "homogeneously branched linear ethylene/α-olefin interpolymers" for component A and "heterogeneously branched ethylene polymer" for component B.

C. Prosecution History of the '023 Patent

The application leading to the '023 patent was filed on August 27, 1997, also claiming priority to the '379 application. (D.I. 131, Exh. 2.) In a "Pre-Examination Amendment" filed on August 27, 1997, Dow submitted claims that explicitly recited "homogeneously branched substantially linear ethylene/α-olefin interpolymers" for component A and a "heterogeneously branched ethylene polymer" for component B. (D.I. 129, Exh. F at F-045 to F-052.) However, prior to any substantive examination on the '023 patent application, the '383 and '053 patents issued in October 1997 and December 1998 (Exh. A ; D.I. 131, Exh. 1).

After issuance of the claims of the '383 and '053 patents, Dow believed that it was entitled to claims that described both components A and B more generically and broader in some respects. Consequently, on February 2, 1999, Dow submitted a Second Pre-Examination Amendment deleting all of the claims and adding a brand new set of claims. (D.I. 129, Exh. F at F-074 to F-077.) The new claims were broader in at least two respects. First, Component (A) of the new '023 patent claims was very broad, reciting "ethylene interpolymers," thereby embracing both "substantially linear" interpolymers and "linear" interpolymers. *(Id* at F-074 to F-075.) Second, Component (B) of the new claims was similarly made very broad to read "ethylene polymer," rather than the narrower "heterogeneously branched ethylene polymer." *(Id*.) In the REMARKS section of the amendment, Dow stated that the new claims "set forth only the essential features of the invention" for that patent application. (D.I. 129, Exh. F at F-076.)

The Examiner understood and acknowledged that Dow was broadening the scope of the claims with respect to both component A and component B. In the next Office Action, the Examiner stated that the new claims were in fact broader in both respects as compared to the issued '383 patent. (D.I. 129, Exh. F at F-091.) After examination on the merits of the new

claims, the Examiner allowed the claims. (D.I. 129, Exh. F at F-163.) The '023 patent issued with these broad, generic claims on August 29, 2000.

III. ARGUMENT

Dow addresses the claim terms as presented in Nova's Opening Brief. Dow first addresses the Slope of Strain Hardening Coefficient claim term that is common to both patents. Dow then addresses the claim terms specific to each patent.

A. Slope of Strain Hardening Coefficient (SHC)

Nova argues that the phrase "slope of strain hardening coefficient greater than or equal to 1.3" is not amenable to construction because it is insolubly ambiguous and consequently all claims in Dow's patents are invalid under 35 U.S.C. §112, ¶ 2. But Nova tries to support this argument by alleging facts that are in serious dispute; indeed, they are wrong. Because Nova must prove any facts it relies on by clear and convincing evidence, the issue becomes one for the jury, not one for a *Markman* hearing. *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008).

Moreover, to make its claim construction ruling on the "SHC" claim term, the Court does not need to resolve the issues that Nova raises. The specifications of the patents-in-suit provide an explicit definition of SHC that the Court should adopt. The remaining issues are factual issues for the jury relating to Nova's invalidity and non-infringement defenses.

1. Nova's argument raises issues of fact inappropriate for resolution at a *Markman* hearing

The claim term is slope of strain hardening coefficient and that term is clearly defined in the patent as:

> The slope of strain hardening coefficient (SHC) is calculated according to the following equation:

$$SHC = (\text{slope of strain hardening}) * I_2^{0.25}$$

where I_2= melt index in grams/10 minutes.

(D.I. 131, Exh. 1, col. 6, ll. 44-50.) Thus, the Court can, as Dow requests, simply construe the claim term as it is expressly defined in the patent and leave for the jury any factual issues that Nova wants to present for invalidity under 35 U.S.C. §112, ¶ 2.

Nova does not dispute that the foregoing definition is the definition of the slope of strain hardening coefficient (SHC). Consequently, the claim term at issue is amenable to construction. Instead, Nova attacks how a person of ordinary skill in art would understand that undisputed definition of the claim term. In doing so, Nova raises factual disputes that are not appropriate for resolution at this stage, but that should be submitted to the jury.

> Like enablement, ***definiteness, too, is amenable to resolution by the jury where the issues are factual in nature.*** Because the issues here are essentially factual, we review the jury's verdict to determine if the ultimate conclusion reached is supported by substantial evidence

BJ Servs. Co. v. Halliburton Energy Servs., Inc., 338 F.3d 1368, 1372 (Fed. Cir. 2003) (emphasis added). Specifically, Nova asserts that a person skilled in the art would not know what method to use for determining the slope of strain hardening and would not know what units to use.

Unlike in the case on which Nova relies, *Honeywell Int'l., Inc. v. ITC*, 341 F.3d 1332 (Fed. Cir. 2003), the issues of fact here have not been resolved by prior evidentiary hearings. In *Honeywell*, the court heavily relied on an unchallenged finding of fact that was essential for resolving the indefiniteness issue before the Court:

> The Commission's final determination includes a finding of fact that the choice of sample preparation method is critical to discerning whether a particular product is made by a process that infringes the '976 patent claims. Honeywell does not challenge that finding on appeal.

Honeywell, 341 F.3d at 1339 (citations omitted). Thus, in *Honeywell*, the court had before it the findings of fact it needed in order to rule – as a matter of law – on whether the claim was indefinite under §112, ¶ 2.

Here, however, the bases for Nova's argument are in dispute. Consequently, the Court should adopt the express definition for the claim term "slope of strain hardening coefficient" that is set forth in the patents' specifications and leave the invalidity issue for the jury.

2. Nova provides the Court with insufficient evidence to support the findings it seeks to have this Court make

Even if the Court were inclined to address the issues raised by Nova, Nova's arguments are wrong because the relevant evidence shows that persons skilled in the art would easily understand how to determine the slope of strain hardening. Nova bears the burden of proving that issue by clear and convincing evidence. Yet Nova provides the Court with no evidence supporting its position and no analysis whatsoever of the patent specification and prosecution history showing that Nova has any chance of meeting that burden.

Nova relies on the bald, unexplained assertion by its expert, Dr. Speed, that the patent and prosecution history fail to provide the necessary information. Obviously, a patent cannot be held invalid based on facts supported only by a single conclusory sentence in an untested declaration. *See Arthur A. Collins, Inc. v. Northern Telecom, Ltd.*, 216 F.3d 1042, 1046 (Fed. Cir. 2000); *Telemac Cellular Corp. v. Top Telecom, Inc.*, 247 F.3d 1316, 1329 (Fed. Cir. 2001).

Even worse, lacking any real evidence, Nova asks this Court to hold the patent claims indefinite based on complete mischaracterizations of the deposition testimony of Dow witnesses, including one of the inventors. For example, Nova argues that the Court should find

the claims indefinite because the inventor Dr. Chum cannot understand or explain the patent disclosure enough today to identify the units or the method of determining the slope for strain hardening. (D.I. 127 at 13). Not only is Nova's argument contrary to the facts, it is also irrelevant. *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379 (Fed. Cir. 2000)("It is particularly inappropriate to consider inventor testimony obtained in the context of litigation in assessing validity under section 112, paragraph 2, in view of the absence of probative value of such testimony.").

REDACTED

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Nova's argument fails for the reasons this Court explained in *Lucent Technologies, Inc. v. Newbridge Networks Corp.*, 168 F. Supp. 2d 181 (D. Del. 2001). In *Lucent*, this Court pointed out

> While the inventors may well have been extraordinarily skilled in the art in 1988 when they were developing the claimed invention, Newbridge provided no foundational testimony as to why the inventors of the Cheng Patent should still be regarded in the same way or as to why their testimony concerning the invention would be particularly credible ten years or more after their work on the patent. In fact, the record indicates that Dr. Cheng, for example, had not worked in the field of error correction and detection for about ten years.

168 F. Supp. 2d at 249. Similarly, here, it is irrelevant that a retired Dow inventor has forgotten how to interpret a portion of the patent after his retirement and years after he worked in this area.

Nova also relies on the testimony of persons not skilled in the pertinent art.

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Dr. deGroot's testimony is simply not relevant to inquiry here, namely whether a person of ordinary skill in the art of determining tensile properties would interpret and understand the patent. *See Merck & Co., Inc. v. Teva Pharmaceuticals USA, Inc.*, 347 F.3d 1367, 1370-71 (Fed. Cir. 2003) ("The question is not whether a general chemist would know the difference between an acid and a salt. The question is whether a person experienced in the field of the invention and familiar with the usages of pharmacology and the prior art.)

Nova has simply failed to point to any relevant evidence on which the Court could conclude that Nova has carried its heavy burden of proving facts supporting the invalidity of the patent.

3. Nova is wrong that a person skilled in the art would not understand how to determine the *slope of strain hardening*

In fact, the relevant evidence shows that one of ordinary skill in tensile properties would readily understand how to determine slope of strain hardening. However, Dow first notes that Nova's arguments here are based on the fact that a figure is allegedly missing from the patent. Nova previously presented the argument that the patent is invalid for allegedly failing to

include this figure in its motion for judgment on the pleadings. (D.I. 21). The Court rejected that motion holding that "the necessity of the drawing is not a purely legal question" and "required factual context." (D.I. 27 at 3). Now Nova raises the same argument again in the guise of a claim construction. However, once again, the facts show that the allegedly missing figure is not crucial – as implicitly recognized by the Patent Office when it granted three separate patents all requiring SHC and all without this figure.

Nova relies on *Honeywell*, where, according to Nova, "the patent's specification did not disclose any method to be used to prepare the yarn specimens." (D.I. 127 at 12 *citing* *Honeywell*, 341 F.3d at 1336.) In stark contrast, Dow's patents provide a detailed description of the strain hardening tests, including specimen setup, the use of a specific "Instron" instrument to create the tensile curve, and the various portions of the curve including strain hardening region, where to draw the parallel line. (*E.g.* D.I. 131, Exh. 1 col. 6, ll. 7-48.) The patents also contain a table of examples of SHC for various polymers. (*Id*. at col. 7, ll. 1-26.) Far from not disclosing any method as in *Honeywell*, Dow devoted 80 plus lines in the patent to describing the method for determining the SHC. (*Id*. at col. 6, l. 7 to col. 7, 1. 26.)

The relevant evidence also shows that based on the disclosures in the patent and a review of the prosecution histories persons skilled in the art would easily understand how to determine the slope of strain hardening, including the units of the SSH term and the method for calculating the slope. That person skilled in art would know that the units for the Slope of Strain Hardening (SSH) term are pounds per inch and he would know where to find the portion of the curve reflecting the polymer's strain hardening.

a. Units

First, Nova argues that a person skilled in the art would not know what units to use for the slope of strain hardening. Nova bears the burden of proof on this issue, yet offers

nothing beyond conclusory assertions to support it. *Telemac Cellular*, 247 F.3d at 1329. Nova asserts that "many different units of stress and strain could be used for SHC and slope of strain hardening yet the intrinsic record does not instruct one skilled in the art which units to use." (D.I. 127 at 11). However, Nova and its expert, Dr. Speed, fail to provide any analysis of the intrinsic record demonstrating that assertion. In fact, the intrinsic record contains a great deal of information that directs a person skilled in the art to use pounds versus inches as the units for the slope of strain hardening.

The Declaration of Dr. Hsiao submitted herewith addresses this issue, including an analysis of the intrinsic evidence that Nova ignored. Dr. Hsiao explains how a person skilled in the art would readily understand from the specification that the units for SSH are pounds per inch. As Dr. Hsiao explains, the patent uses English and not metric units to refer to all aspects of the strain hardening testing. (Hsiao Decl. ¶ 13). The patent directs a person skilled in the art to use English units, such as pounds and inches, and not metric units, such as pascals, centimeters, meters or kilograms. (*Id*. at 13-14). Moreover, the default units for a tensile curve produced by the "Instron" tensile equipment identified in the patent using English units are pounds versus inches. (Exh. C, ch. 7 at 15; (Hsiao Decl. ¶ 10.) Consequently, a person skilled in the art reading the patent would understand that English units for load and elongation – i.e., pounds and inches – should be used for the slope of strain hardening.

Dr. Hsiao also explains that a person skilled in the art would know the proper units based on the numerous SHC data points for 25 actual polymers provided in the patent specifications and prosecution histories, including three commercially available Exxon polymers. (Hsiao Decl., ¶¶ 20-22.) From this data, one could conduct a simple test to determine the proper units if there were any doubt. These test results would immediately show that the default units of

pounds versus inches should be used, because the other possible units would result in numbers that are hundreds or thousands of times too high or too low as compared with the reported values. *Texas Instruments Inc. v. ITC,* 871 F.2d 1054, 1063 (Fed. Cir. 1989) ("The public is entitled to know the scope of the claims but must look to both the patent specification and the prosecution history, especially where there is doubt concerning the scope of the claims.").

For example, the prosecution history reports a value of 1.2 for the slope of strain hardening for the polymer Exact 3027. (Exh. I at Table 1.) If one obtained a sample of Exact 3027 and ran the SHC test, one would see that the units must be pounds per inch. (Hsiao Decl., ¶¶ 20-21). Other units would yield values of 503 or 1113 depending on how strain is calculated. (Hsiao Decl., ¶ 20). These numbers are so far off the reported value that a person skilled in the art would immediately recognize that the default values of the "Instron" device – pounds versus inches – should be used. (Hsiao Decl. ¶ 21). Indeed, Nova concedes that the use of other units would result in values 145 times off the proper value. (D.I. 127 at 15.) However, Nova failed to take into account that the disclosure of specific SHC values for 25 actual polymers, including commercially available polymers, would provide all the information necessary to determine the proper units if there were any doubt at all.

b. Method

Second, Nova argues that there is more than one method for determining the slope of strain hardening. Nova fails to show that a person skilled in the art, even if aware of all of these methods, would not have known when which method would be appropriate. Instead, Nova's Dr. Speed shows an obviously inappropriate use of several methods.

In fact, the issue is what method a person skilled in the art would have used as of April 1993. *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.*, 401 F.3d 1367, 1371 (Fed. Cir. 2005) ("The perspective of a person of ordinary skills in the art at the time of the patent

application governs the definiteness analysis.") The only method a person skilled in the art in 1993 would have used is the method of finding the maximum slope in the strain hardening region of the curve. (Hsiao Decl.), ¶¶ 33-34.). There is no evidence whatsoever that a person skilled in the art in 1993 would have known or used any of the other methods referred to by Nova.

Furthermore, Nova has presented no evidence that even if those methods were known, a person skilled in the art would have used them in the circumstances here. Indeed, if informed of the nature of these alternative methods, a person skilled in the art would have known the circumstances when these alternatives would work properly and when they could not be used to determine the slope of strain hardening. (Hsiao Decl., ¶ 34; Lai Decl., ¶¶ 6-8).

However, individual polymers will show slightly different curves. (Hsiao Decl., ¶ 30; Lai Decl., ¶ 6-7). The important point is that persons skilled in the art know how to determine the slope of strain hardening for the specific polymers being investigated. (Hsiao Decl., ¶ 30). For many polymers, the slope of the tensile curve in the strain hardening region is constant and does not change up to the point where the test is complete. (Hsaio Decl., ¶ 30; Lai Decl., ¶ 6). For these curves, all of the methods pointed to by Nova would result in the identical slope of strain hardening and the identical SHC. (Hsiao Decl., ¶ 34.) For other polymers, the slope may vary, but one skilled in the art would still be able to identify the appropriate part of the curve. (Hsiao Decl., ¶ 30.)

Furthermore, in some cases, such as when the sample slips in the testing machine, the slope at the end abruptly drops. (Hsiao Decl., ¶ 32; Lai Decl., ¶ 7). When this occurs, a person skilled in the art would know the only appropriate method is to determine the slope before the sample slipped. (Hsiao Decl., ¶ 32; Lai Decl., ¶ 6.) A person skilled in the art would know that the other methods will lead to inaccurate results in that situation and would therefore not use

these methods. (Exh. L at 225:12-226:25; Hsaio Decl., ¶¶ 31-34). The important point, as Dr. Hsiao makes clear, is that persons skilled in the art know how to make the correct determinations. (Hsiao Decl., ¶ 33).

The *Honeywell* case cited by Nova does not lead to a different result. In that case there were findings of fact by the ITC that there were different methods of sample preparation that a person skilled in the art could use. *Honeywell*, 341 F.3d at 1339. The patentee did not challenge those findings on appeal. *Id*. Here, however, of the six methods presented by Dr. Speed and Nova, only one of them — the one based on the maximum slope in the strain hardening region — is one that persons skilled in the art in 1993 would use to accurately determine the slope of strain hardening. Consequently, *Honeywell* is inapplicable.

The Court should reject Nova's argument that the SHC claim term recited in both patents-in-suit is indefinite.

B. The '053 Patent Claim Terms

As discussed above in the Statement Facts, the '053 patent is the one directed to "linear" homogeneously branched ethylene interpolymers for Component A and heterogeneously branched ethylene polymers for Component B.

1. "Homogeneously branched linear ethylene α-olefin interpolymer"

The first claim term at issue for the '053 patent is "homogeneously branched linear ethylene/α-olefin interpolymers." As Dow explained in its Opening Brief, the parties are in substantial agreement as to the meaning of this term, but Nova would add additional limitations. The first relates to a numerical "CDBI" limitation and the other relates to the polymer not being "substantially linear."

a. Nova's CDBI Limitation is Improper

Nova's proposed CDBI limitation is based on a mis-characterization of the '053 patent specification. Nova asserts that the '053 patent specification "calls for a CDBI greater than or equal to 30 percent." (D.I. 127 at 16.) Nova thus suggests that the specification calls for a mandatory CDBI value for the invention. The '053 patent specification actually says no such thing.

The specification merely states that the 30% value is a preferred value, not a required one. The '053 patent specification states that "[t]he SCBDI or CDBI for the linear and for the substantially linear olefin polymers of the present invention is preferably greater than about 30 percent." (D.I. 131, Exh. 1, col. 3, ll. 48-51; D.I. 127 at 16.) The Federal Circuit has repeatedly "cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification." *Teleflex Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002). The Federal Circuit has also strongly cautioned against importing numerical limits into a claim that does not contain such limits. *Conoco, Inc., v. Energy & Envtl. Int'l. L.C.*, 460 F.3d 1349, 1358 (Fed. Cir. 2006); *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998).

Furthermore, both Dow and the Examiner knew how to limit an interpolymer to a minimum CDBI value when so intended. The '023 patent, for example, recites claims with an explicit CDBI values of "greater than 50 percent." The '053 patent does not recite a CDBI limitation and the Court should not read one into the claims.

b. Nova's "Not Substantially Linear" Limitation is Unnecessary And Could Cause Jury Confusion

Nova's proposed construction adds the extra language that the polymer is "not substantially linear." Although Dow agrees that the interpolymers of the '053 patent are not

"substantially linear," the Court's claim construction for the jury need not and should not include Nova's proposed language. The parties agree that the claim term at issue requires a "linear" polymer, which means no long chain branching, and the parties have agreed to include the language "no long chain branching" for the claim construction.

There is no need to add the additional language "not substantially linear." Indeed, the use of the term "not substantially linear" introduces yet another term "substantially linear," that might require construction for the jury. It also might confuse the jury. What does "not substantially linear" mean and what does it add in addition to the "no long chain branching" requirement? Nova's proposal is unnecessary and creates ambiguity and is therefore improper. *Phillips v. AWH Corp.* , 415 F.3d 1303, 1327 (Fed. Cir. 2005).

2. "Heterogeneously branched linear ethylene polymer"

The next claim term at issue for the '053 patent is "heterogeneously branched linear ethylene polymer" in Component (B). The parties agree that the term requires that the polymer have "a distribution of branching different from and broader than the homogeneously branched ethylene/α-olefin." However, Nova's proposed construction goes further. Nova adds the requirement that the "heterogeneously branched linear ethylene polymer" must have a "highly branched portion, a medium branched portion and an essentially linear portion." (D.I. 127 at 18). There is no basis for this limitation.

a. The Plain Claim Language And Specification Are Contrary To Nova's Proposed Construction

The plain language of the claims does not require that the heterogeneous branched polymer of Component (B) have a "highly branched portion, a medium branched portion and an essentially linear portion." In addition, the specification provides no definition of "heterogeneously branched" polymers that requires those three branching portions be present in

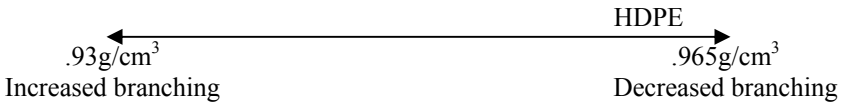
all heterogeneous branched polymers. At one point in its brief, Nova suggests incorrectly that the '053 patent specification recites such a definition. (D.I. 127 at 18-19.). Nova is wrong.

Contrary to Nova's characterization, the '053 specification does not set forth any such definition. Rather, the passage on which Nova relies pertains to one example of a heterogeneously branched polymer, namely linear low density polyethylene, or LLDPE:

> For example, heterogeneously branched ***LLDPE*** polymers have a distribution of branching, **including a highly branched portion** (similar to a very low density polyethylene), **a medium branched portion** (similar to a medium branched polyethylene), **and an essentially linear portion** (similar to linear homopolymer polyethylene).

(D.I. 131, Exh. 1, col. 7, ll. 36-41.) However, nowhere in the specification does it indicate that all heterogeneously branched linear ethylene polymers must have all three types of branching.

The '053 patent claims a variety of heterogeneously branched polymers with different densities ranging from 0.93 to 0.965, and with different amounts of branching. The figure below shows the range of densities explicitly recited in Component (B) of the '053 patent claims for heterogeneously branched polymers:



As shown in the figure and as taught in the '053 patent, higher density polymers generally have decreased branching and lower density polymers have increased branching. The heterogeneously branched LLDPE polymers referred to in the specification have a relatively low density (for example 0.92) and thus would have increased branching. Conversely, high density polyethylene ("HDPE") has decreased branching and does not possess "highly branched" portion as in LLDPE. The '053 patent specification says that LLDPE, with its high degree of branching, has all three types of branching, including the highly branched portion. (D.I. 131, Exh. 1, col. 7,

ll. 36-41.) The specification does not disclose or suggest that heterogeneously branched polymers appearing in the middle or at the right end of the above range would have these same characteristics as the one example of LLDPE.

The Federal Circuit has cautioned against "limiting the claimed invention to preferred embodiments or specific examples in the specification." *Teleflex*, 299 F.3d at 1328; *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1302-03 (Fed. Cir. 2007). Consequently, this Court should reject Nova's improper attempt to read examples from the specification into the '053 patent claims.

b. The Prosecution History Emphatically Confirms That Nova's Construction Is Wrong.

The prosecution history makes it perfectly clear that that there is no requirement that the "heterogeneously branched linear ethylene polymer" contain a "highly branched portion, a medium branched portion and an essentially linear portion" as Nova proposes. Nova's hope is to obtain a claim construction for this term that excludes coverage of HDPE polymers, which are incorporated in Nova's accused products. HDPE polymers generally do not have a highly branched portion and thus would not meet Nova's strained construction. However, Nova's proposed construction excludes the very polymer — HDPE — that was cited repeatedly by Dow and the Examiner as a "heterogeneously branched linear ethylene polymer" of Component B.

During the prosecution of the '383 patent (and later in the '053 patent) Dow submitted a declaration that shows the fallacy of Nova's argument. At that time, the claims pending in the '383 patent application required a component B that was a "heterogeneously branched linear ethylene polymer." Dow submitted a declaration that made comparisons between examples of the invention and the prior art. The declaration disclosed an HDPE, specifically "HDPE 04352N," as the polymer used for component B. (Exh. I at Table 2.) Based

on that declaration, one would conclude that the claim term "heterogeneously branched linear ethylene polymer" included HDPE polymers.

Other events in the prosecution history confirm the same. Specifically, the Examiner rejected the pending claims pursuant to § 102(e) as anticipated by U.S. Patent No. 5,408,004 ("Lai '004 patent"). (Exh. B at 97-98.) The Examiner's basis for finding that Lai '004 included the heterogeneously branched polyethylene required for Component B of the '053 patent was column 3, lines 3-14 of the Lai '004 patent. That portion of Lai '004 is directed squarely to HDPE. (Exh. E at col. 3, ll. 3-14.) The examiner also cited working Example 1 of the Lai '004 patent, which described a blend with "**HDPE resin** (Sample C-2)" with a density of 0.959. (Exh. E at col. 7 and 8). In response, Dow did not argue that the heterogeneously branched polymer of Component B of the '053 patent did not include the HDPE resin disclosed by Lai. Instead, Dow raised other arguments to distinguish the Lai patent. (D.I. 128 at E-152 to E-155.)

The events of the prosecution history clearly indicate to a person skilled in the art that both Dow and the examiner understood that HDPE polymers (that have no highly branched portion) could meet the requirements of the heterogeneously branched polymer of Component B. Consequently, a person skilled in the art would readily understand that there was no requirement of having a "highly branched portion, a medium branched portion and an essentially linear portion."

3. "Comprising"

The next dispute between the parties pertains to the meaning of the open transitional claim term "comprising" as it appears in the '053 patent claims. As Dow pointed out in its Opening Brief, that the term is uniformly construed to mean "including, but not limited to." (D.I. 131 at 12.) That is, in essence, how Dow asks this Court to construe the term. Dow's

proposal is "a composition that includes at least A and B but may also include additional, unnamed elements."

Nova, on the other hand, offers a complex definition that is really no more than Nova's argument for non-infringement, a matter inappropriate for a *Markman* proceeding. In fact, the case on which Nova relies, *Jeneric/Pentron, Inc. v. Dillon Co., Inc.*, 205 F.3d 1377 (Fed. Cir. 2000), involved the issue of likelihood of success of an infringement finding on a preliminary injunction motion. Not only are infringement issues of the kind raised by Nova's argument inappropriate at this juncture, but Nova's arguments are wrong as well.

> Nova says the term "comprising" should be construed to mean that
>
> all 'homogeneously branched linear ethylene/a-olefin interpolymer(s)' must satisfy the requirements of element (A) and all 'heterogeneously branched linear ethylene polymer(s)' must satisfy the requirement of element (B).

(D.I. 127 at 19.) This proposed construction runs contrary to the express claim language and to the Federal Circuit's precedent for construing open transitional terms like "comprising." According to Nova's construction, if a composition comprises a blend of three polymers, including two homogeneous polymers and one heterogeneous polymer, both homogeneous polymers would need to meet the criteria of Component A.

Nova's position is contrary to the explicit language of the claim. Component A of the claim states that the composition must have "***at least one*** homogeneously branched linear ethylene/alpha-olefin interpolymer" and that "at least one" interpolymer must meet six sub-requirements. The "at least one" language suggests that other homogeneously branched interpolymers may be present, and that only the "at least one" interpolymer needs to meet the

requirements of Component A of the claim.[2] The claim does not require that any other homogeneously branched interpolymers must meet the requirements of the "at least one" homogeneously branched interpolymer of Component A. In that event, the claim would have stated that "all" homogeneously branched interpolymers must meet those requirements, not just the "at least one" interpolymer.

Here, any additional homogenously branched interpolymers or any additional heterogeneously branched polymers are merely unrecited elements that do not need to meet the requirements of the "at least one" interpolymer of Component A or Component B. *Free Motion Fitness, Inc. v. Cybex Int'l, Inc.*, 423 F.3d 1343, 1347 (Fed. Cir. 2005) ("addition of ***unclaimed elements*** does not typically defeat infringement when a patent uses an open transitional phrase such as 'comprising'") (emphasis added).

The situation is analogous to that in *SanDisk Corp. v. Memorex Prods, Inc.*, 415 F.3d 1278 (Fed. Cir. 2005). In *SanDisk*, the patent at issue involved "memory cells" and claimed a method of using such cells to store memory on a computer. The trial court construed the claim to require "***every*** . . . memory cell . . . to be grouped into a sector that is partitioned into user and overhead data portions." *Id.*at 1284 (emphasis added). The accused product contained some memory cells that were not grouped according to the claim language and some that were. The Federal Circuit reversed, holding that not every memory cells needed to meet the requirement of the claim element. *Id.* The court further explained that the transitional terms, "comprising" does not foreclose "***additional elements that need not satisfy the stated claim limitations."*** *Id.* (emphasis added).

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2 Similarly, Component B of the claim contemplates the possible addition of other unrecited heterogeneously branched interpolymers. Component B recites "***at least one*** heterogeneously branched linear ethylene/alpha-olefin interpolymer."

Nova's reliance on *Jeneric/Pentron,* to support this argument is misplaced. *Jeneric/Pentron* related to abrogating numerical requirements for recited claim elements, not the addition of unrecited claim elements.

In *Jeneric/Pentron,* the claim at issue contained a recited claim element, cerium oxide, with a required range of 0-1%. 205 F.3d at 1382. The accused composition contained 1.61% cerium oxide. *Id.* Relying in part on the use of the term "comprising," the patentee argued that a portion of the accused product's cerium oxide fell within the literal limits of the claim and the remaining portion of the cerium oxide performed some other function in the infringing composition. *Id.* The patentee's argument that a product containing 1.61% cerium oxide would meet the claimed range of 0-1% completely abrogated the requirement that cerium oxide not exceed 1%. *Id*. at 1382-83. *Jeneric/Pentron* did not involve the presence of unrecited claim elements; it involved the presence of too much of a recited claim element — cerium oxide.

Unlike *Jeneric/Pentron,* the issue here involves the presence of unrecited claim elements, not the failure to meet one of the requirements for a recited claim element, such as an upper limit. Thus, contrary to Nova's assertion, Dow's proposed claim construction for the term "comprising" will not allow Dow to "read out" the claim's express ranges for the elements recited for component A or B. Dow's interpretation requires that the "at least one" homogenously branched interpolymer meet all the requirements of Component (A), including the about 10-95% range. Once Dow shows that an accused composition contains such a homogenously branched polymer that meets the limitations of Component A, other additional homogenously branched interpolymers (unrecited claim elements) that do not meet the requirements of Component A may also be present.

C. The '023 Patent Claim Terms

The '023 patent issued after the '383 and '053 patents, and included broad claims with respect to aspects of Component A and Component B. For Component A, Dow deleted the phrase "substantially linear," and instead used the term "ethylene interpolymers." For Component B, Dow deleted the word "heterogeneous," and instead used the term "ethylene polymer." The Examiner acknowledged the broad generic scope of these terms, and examined the application accordingly.

Nova now seeks to re-write the '023 claim terms to put in the very language that Dow deleted.

1. "(A) ... at least one ethylene interpolymer"

The first claim term at issue for the '023 patent is "at least one ethylene interpolymer." The parties' dispute here centers around whether this claim term should be given its plain and ordinary meaning, as Dow requests, or whether the Court should read in additional limitations, as Nova requests.

The plain and ordinary meaning of the term "ethylene interpolymer" is not in dispute. It is a generic term that simply means a polymer made from ethylene and a comonomer. It indisputably includes "substantially linear" and "linear" polymers. Nova asks to Court to limit the term to the former by reading in the words "substantially linear" before "ethylene interpolymer." Nova also requests that the Court insert a requirement that the polymer is made with a specific catalyst type. Nova's proposed construction reads as follows:

> A ***substantially linear*** ethylene polymer prepared from ***a catalyst with constrained geometry*** about the metal atom as described in U.S. Patent No. 5,272,236.

(D.I. 127 at 21.) The Court should reject Nova's proposed construction.

a. Nova's Proposed Construction Is Contrary To the Plain Claim Language and The '023 patent Specification.

The '023 patent specification uses the term "ethylene interpolymer" in its ordinary generic sense. The specification makes clear that "ethylene interpolymers" come in two varieties --"substantially linear" and "linear." (D.I. 131, Exh. 2 col. 3, ll. 9-14.). A "heavy presumption" exists that this term carries its "ordinary and customary meaning to those skilled in the art in light of the claim term's usage in the patent specification." *Elbex Video, Ltd. v. Sensormatic Electronics Corp.*, 508 F.3d 1366, 1371 (Fed. Cir. 2007).

Nevertheless, contrary to the express claim language and the patent specification, Nova now seeks to rewrite the '023 patent claims as if they recited explicit limitations to "substantially linear" and "constrained geometry" catalysts. Nova's proposed construction of the term "at least one ethylene interpolymer" therefore violates the well-settled law that flatly forbids reading extra limitations into claims. *Northern Telecom Ltd. v. Samsung Elecs. Co., Ltd*., 215 F.3d 1281, 1290-91 (Fed. Cir. 2000) ("This court has repeatedly and clearly held that it will not read unstated limitations into claim language.").

To provide context, there is no doubt that both Dow and the Examiner knew how to limit claims to "substantially linear" or "linear" when that was the intention. Indeed, an assessment of all the relevant patents issuing from the same specification reveals this fact. Dow received three patents on the disclosure of the patents-in-suit as follows:

1. The '383 patent, issued in October 1997, explicitly recites claims requiring a "substantially linear" ethylene interpolymer. (Exh. A at col. 15, ll. 59-65).

2. The '053 patent, issued in December 1998, explicitly recites claims requiring a "linear" ethylene interpolymer. (D.I. 131, Exh. 1, col. 15, l. 31 to col. 16, l. 61.)

3. The '023 patent, issued August 2000 uses the generic term "ethylene interpolymer" covering both varieties. (D.I. 131, Exh. 2, col. 15, l. 58 to col. 18, l. 29.)

If Dow or the examiner had intended to limit the '023 patent claims to "substantially linear" polymers, they would have been expressly written that limitation into the claims just as in the '383 patent claims.

b. Nova Omits Key Events From the Prosecution History.

Nova attempts to rely on the prosecution history to limit the claim term "ethylene interpolymer." According to Nova, statements made by Dow and the Patent Examiner reflect a disavowal of claim scope that limits the '023 patent claims to "substantially linear." Nova's argument mischaracterizes the events of the prosecution history.

Nova relies only on Dow's "Pre-Examination Amendment" of August 1997 which contained claims that were all canceled before the Examiner began his examination. (D.I. 129, Exh. F at F-045 to F-054.) Those claims all explicitly recited "substantially linear" and were therefore obviously limited to "substantially linear" polymers. (*Id*. at F-048 to F-052.) However, those claims were deleted as explained above in the Statement of Facts.

The '023 patent prosecution history shows the following key events:

1. When Dow characterized its claims as limited to "substantially linear" polymers, the claims all expressly required "substantially linear" polymers. (Exh. F at 6.)

2. ***After*** Dow characterized its claims as limited to "substantially linear," Dow ***canceled*** every claim that used that language and presented ***all new claims*** that were not so limited. (D.I. 129 Exh. F at F-076.)

3. The Examiner expressly acknowledged that these new claims were not limited to "substantially linear" polymers and were in fact generic to such polymers. (D.I. 129, Exh. F at F-091.)

Nova omits the explicit statement by the Examiner in the Office Action dated September 30, 1999, wherein the Examiner stated that the new claims to "ethylene interpolymers" were "generic," in contrast to the "species" of "substantially linear" ethylene interpolymers claimed in the '383 patent. (D.I. 129, Exh. F at F-091.) Thus, the Examiner acknowledged that the '023 patent claims were not limited to "substantially linear" ethylene interpolymers.

Furthermore, the Examiner then rejected the '023 patent claims under § 102 over prior art that disclosed only linear polymers, further showing that the Examiner clearly understood that the claims covered linear polymers. Specifically, the Examiner rejected the pending claims as being anticipated by WO '414, a reference that did not disclose "substantially linear" ethylene interpolymers but instead disclosed "linear" ethylene interpolymers. (D.I. 129, Exh. F, at F-089 to 090.) More importantly, Dow did not respond to this rejection by arguing that the claims required "substantially linear" polymers.

In contrast, when rejected over the same WO '414 prior art in the earlier '383 patent prosecution with claims directed to "substantially linear" polymers, Dow forcefully argued that "standing alone, the term 'substantially linear ethylene interpolymer' sufficiently and completely distinguishes the present invention over the WO '414 reference." (Exh. G at 7.) However, in the '023 patent prosecution, after the claims were amended to delete all limitations to "substantially linear" polymers, Dow no longer relied on this distinction to distinguish the '023 patent claims over the WO '414 reference.

Thus, the prosecution history shows that during examination of the claims at issue here — first presented in February 1999 — both Dow and the Examiner treated the claims as being generic with respect to "ethylene interpolymers."

c. The Markovich Declaration Does not Limit the '023 Patent Claims to "Substantially Linear"

Nova asserts that Dow's submission of the Third Markovich Declaration somehow supports its position that Dow limited the invention claimed in the '023 patent to substantially linear ethylene interpolymers. Specifically, Nova in its brief argues as follows, pointing to the Third Markovich Declaration:

> Dow argued that "this declaration provides a comparison between Inventive Example ADI, comparative Example BDI and Inventive Example CDI which clearly and convincingly demonstrates that the present invention provides unexpected results." Both of Inventive Examples ADI and CDI are polymer blends made from substantially linear ethylene polymer.

(D.I. 127 at 22) (citation omitted). However, Nova's quotation does not support Nova's position at all.

As an initial matter, as pointed out in the prosecution history and shown on the face of the declaration, the Third Markovich Declaration was originally drafted and submitted in the prosecution of the '383 patent. (Exh. I at 1). The '383 patent was directed to "substantially linear" polymers and thus the declaration noted that property. (*Id.* at 3.) Dow relied on the declaration again in the '023 patent, which generically covered both linear and substantially linear polymers (and thus covered the "substantially linear" subject matter of the examples in the declaration). However, there is nothing in the declaration or in the papers accompanying the declaration in the '023 patent that remotely suggested that the generic claims of the '023 patent were limited to the species in the declaration.

Moreover, the declaration made clear that the "substantially linear" feature is not what distinguished the inventive examples. Rather, the inventive property was the SHC parameter of their component A, not the presence of a "substantially linear" polymer. In fact, ***Comparative*** Example BD1 ***was*** made with a substantially linear polymer, just like Inventive

Examples AD1 and CD1. (Exh. I at Tables 1-2.) But Comparative Example BD1 was not an inventive example because its component A did not meet the SHC value. Consequently, whether the examples in the Markovich declaration included "substantially linear" polymers or not had nothing to do with whether they were examples of the invention.

In any event, the examples in the declaration are just that — examples of the invention. And just like examples of an invention disclosed in a patent's specification, they do not limit the claims to their unclaimed features. *Teleflex*, 299 F.3d at 1328; *Verizon Servs.*, 503 F.3d at 1302-03. Here, the '023 patent claims are generic and thus cover the substantially linear polymers set forth in the Markovich declaration, as well as linear polymers.

d. The Statement of Reasons for Allowance Does not Support Nova's Proposed Construction.

Nova also contends that the Examiner's statements in his Reasons for Allowance limit the "ethylene interpolymer" claim term to "substantially linear" ethylene interpolymer made with a specific catalyst called a constrained geometry catalyst. Nova asserts that because Dow did not respond to this statement that Dow "disavowed a potential broader interpretation of the claims…" (D.I. 127 at 23).

As an initial matter, even if Nova's interpretation of the Examiner's statement were correct (which it is not) the statement at most creates an ambiguity and thus cannot be a clear disavowal under the law. *Elbex Video*, 508 F.3d at 1371 ("A disclaimer must be clear and unambiguous."). There can be no disclaimer where "a person of reasonable intelligence would not be misled into relying on the erroneous statement, for it is contrary not only to the plain language of the claims and the specification but also to other statements in the same prosecution document." *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1348 (Fed. Cir. 2001).

Here, Nova alleges that the Examiner's Reasons for Allowance expressed a view that the claims were limited to "substantially linear" polymers. However, just as in *Biotec*, that would be contrary to the plain language of the claims and the specification and contrary to the Examiner's statement in the same prosecution where he acknowledged that the '023 claims were not so limited. *See also Elbex Video*, 508 F.3d at 1373 (finding no clear disclaimer in part based on the ambiguity created by other statements in the same prosecution document.); *Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1089-91 (Fed. Cir. 2003) (holding no clear disclaimer where the statement made was "facially inaccurate" in view of the remainder of the prosecution history).

Nova's argument here fails for the additional reason that, under the law, an examiner's Statement of Reasons for Allowance is not binding on the applicant and requires no response even if the applicant disagrees with the examiner's position. *Salazar v. Proctor & Gamble Co.*, 414 F.3d 1342 (Fed. Cir. 2005) ("An applicant's silence in response to an examiner's characterization of a claim does not reflect the applicant's clear and unmistakable acquiescence to that characterization . . . .")

In *Salazar,* the issue before the Federal Circuit was directly analogous to that of this case. The Court was asked to decide whether an applicant's silence in the face of unilateral statements by the Examiner could affect the construction of the claims. *Salazar*, 141 F.3d at 1345. The Court concluded that it could not. *Id.* at 1347. ("This Court refuses to create a rule or presumption that the applicant … disavowed claim scope by silence.").

Moreover, Nova's reliance on *Elkay Mfg. Co. v. Ebco Mfg. Co.,* 192 F.3d 973 (Fed. Cir. 1999), is misplaced. *Elkay* did not involve a unilateral statement by the Examiner in the Reasons for Allowance. In *Elkay*, the patent owner distinguished his invention from the prior

art in order to overcome an obviousness rejection. He did so by pointing out that his feeding tube invention described a single tube for liquid and air, whereas the prior art reference required separate tubes. *Id*. at 978-79. The Examiner allowed the claims and, in the Reasons for Allowance, simply repeated the patentee's own prior characterization of his claims. *Id*. at 979. Therefore, the Federal Circuit held that the applicant's characterization of its invention, confirmed by the Examiner's statements in the Reasons for Allowance to which the patent owner did not respond, constituted a disavowal of claim scope. *Id*.

Unlike the situation in *Elkay*, Dow never characterized the claims at issue here — first presented in February 1999 — as being limited to "substantially linear," nor did it state that the polymers must be "formed from constrained geometry catalysts according to the '236 patent." Thus, even if the Examiner was indicating that he understood the claims to be limited to CGC polymers, that statement has no effect on the construction of the claims.

Furthermore, Nova is simply wrong in its characterization of the Examiner's statements in his Reasons for Allowance. The Examiner did not, as Nova argues, "indicate[] his understanding that the claims were directed to **'substantially linear'** ethylene polymers." (D.I. 127 at 22.) Instead, he was explaining why he was withdrawing a rejection that he had been improperly made.

Specifically, the Examiner had earlier rejected claims over WO '414 based on the assumption that the WO '414 polymers were made by the same process as those in examples ***disclosed*** by Dow. (D.I. 129, Exh. F at F-163.) That assumption provided the necessary basis for a rejection under Patent Office procedures based on inherency principles, as referenced in MPEP § 2112 and *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980). (D.I. 129, Exh. F at F-089 to 90; *see* MPEP § 2112 (7th ed. 1998).)

In the Statement of Reasons for Allowance, the Examiner explained that the basis for this earlier inherency rejection was incorrect because certain of Dow's ***disclosed*** polymers and the WO '414 polymers were made by different processes:

> The Examiner effectively withdraws the rejection ….over [WO '414] because upon further examination of [the '023 patent application] ***the blends disclosed in the claimed invention*** and the ***blends disclosed in WO '414*** have a polyolefin prepared by a different process.

(D.I. 129, Exh. F at F-163) (emphasis added). The Examiner then went on to explain the above statement using the sentences taken out of context by Nova in its brief. Thus, contrary to Nova's argument, the Examiner was commenting on the catalyst used for some of Dow's examples, not Dow's claims.

The Court should construe the claim term "ethylene interpolymers" according to its plain and ordinary generic meaning, just as the prosecution history shows was intended by Dow and acknowledged by the Examiner.

2. "Ethylene Polymer…Comprising A Linear Polymer Fraction"

The final claim construction issue for the '023 patent relates to Component (B), specifically the phrase "(B)…ethylene polymer…comprising a linear polymer fraction." As with the other claim terms, Nova's construction impermissibly reads limitations into this claim term.

a. "Ethylene Polymer"

The plain and ordinary meaning of the term "ethylene polymer" is not in dispute. It is a generic term that simply means a polymer made from ethylene. It indisputably includes heterogeneous and homogenous polymers. In most circumstances a court should adopt the plain and ordinary meaning of a claim term. *Elbex Video*, 508 F.3d at 1371("Claim terms are entitled to a 'heavy presumption' that they carry their ordinary and customary meaning to those skilled in

the art in light of the claim term's usage in the patent specification."). Here, the intrinsic evidence supporting such a construction is overwhelming.

As set forth in the Statement of Facts, there is no dispute that Dow deleted the words "heterogeneously branched" from the claims prior to any examination and presented new claims with broad, generic language for Component B. And during prosecution, the Examiner expressly stated that the component B "ethylene polymer" of the '023 patent is generic and different in scope as compared to "heterogeneously branched" polymers:

> Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant invention are ***generic in scope*** referring to "ethylene interpolymer" and ***"ethylene polymer"*** while the claims of the ['383] patent are restricted to ***a species (i.e.*** "homogeneously branched substantially linear ethylene/olefin interpolymer," ***"heterogeneously branched ethylene polymer")*** of the generic claim.

(D.I. 129, Exh. F at F-091.) Nova asks to Court to limit the term by re-inserting the very words — "heterogeneously branched" — that were deleted.

Nova relies on the Summary of the Invention's disclosure of two embodiments. Nova cites cases holding that when a patent describes an invention as a whole, those statements ***are more likely*** to support a limiting definition of a claim term." (D.I. 127 at 25, *citing C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004)). However, in those cases the specification describes a certain feature as a mandatory requirement of "the present invention." For example, the "word '***is***' may signify that a patentee is serving as its own lexicographer" and defining a term to be limited to one thing or another. *Abbott Labs v. Andrx Pharm., Inc.*, 473 F.3d 1196, 1210 (Fed. Cir. 2007). Thus, in *Honeywell Int'l, Inc. v. ITT Indus.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006), the Court noted that "[t]he public is entitled to take the patentee at his word and the word was that ***the invention is a fuel filter.***"

However, the term at issue "ethylene polymer" or "(B)…ethylene polymer" is never described using such mandatory language. Nowhere does the Summary indicate that the patentee was redefining the term "ethylene polymer" to have a narrower scope than its plain and ordinary meaning. Nowhere does the Summary of the Invention include the key language relied on in *C.R. Bard* –"the present invention is…." As *C.R. Bard* indicates, statements in a Summary are merely "more likely" to support a limiting definition, but there nevertheless must be some basis for such limitation. There is no such basis in the '023 patent. Indeed, the prosecution history makes it quite clear – and clearly informs the public – that "ethylene polymer" in component B in the claims of the '023 patent is broader than a "heterogeneously branched" ethylene polymer.

b. Linear polymer fraction

Nova also seeks to limit the term "linear polymer fraction" to a fraction "that is neither branched nor highly branched, but is linear." However, Nova's only support is a misrepresentation of the specification. Specifically, Nova argues that this term refers to the "essentially linear portion" of a heterogeneously branched polymer and then argues that this "essentially linear portion" is in fact completely linear. Nova argues as follows:

> The claims of the '023 patent also require … "a linear polymer fraction…." The meaning of this term is found under the heading "THE HETEROGENOUSLY BRANCHED ETHYLENE POLYMER," where the '023 specification discloses that the heterogeneously ethylene polymer has … "an essentially linear portion (similar to linear homopolymer polyethylene)." The specification elaborates that this essentially linear portion of the heterogeneously branched polymer "has neither branched nor highly branched fractions, but is linear."

(D.I. 127 at 26) (citations omitted). Nova's statement that "[t]he specification elaborates that this essentially linear portion…' has neither branched nor highly branched fractions, but is linear'" is completely false. The specification does not state that at all.

On the contrary, the specification states that "linear homopolymer polyethylene," i.e., not the essentially linear portion, "has neither branched nor highly branched fractions, but is linear." (D.I. 131, Exh. 2, col. 8, ll. 29-31.) The "linear" fraction of a copolymer is identified as, for example, the "linear fraction" of Dowlex 2045, which indisputably is branched. ((D.I. 132 (Soares Decl.), ¶ 7.) In fact, Nova admits that what the claims call the "linear fraction" is the same one that the specification calls the "essentially linear" fraction. This fraction differs from an unbranched fraction in two ways: (1) it is only essentially linear; and (2) it is similar to, but not the same as, the homopolymer that the specification says is not branched.

Furthermore, Nova's argument is hopelessly circular. Nova argues that the term "linear polymer fraction" refers to the "essentially linear portion" of a polymer that is not in fact essentially linear, but is completely linear. Thus, Nova concludes defining linear as meaning linear. This construction is not helpful. However, Nova is correct in identifying the linear polymer fraction as referring to the essentially linear portion of the polymer. This portion is, as explained in the patent, neither highly branched nor medium branched. Accordingly, the linear portion is that portion of the polymer that contains lightly branched as well as unbranched molecules.

The clearest usage of the term "linear" is in the discussion of Dowlex discussed by Dow in its Opening Brief. (D.I. 131 at 25-26.) That discussion makes clear that the term "linear" fraction refers to parts of the polymer that do in fact have light amounts of branching. Specifically, that discussion refers to the fraction Dowlex 2045 having an elution temperature of 98°C. That fraction of Dowlex is lightly branched. (D.I. 132, ¶ 7.) Consequently, the term "linear polymer fraction" refers to a fraction of a polymer that is neither heavily branched nor medium branched, but is lightly branched or unbranched.

IV. CONCLUSION

For all of the foregoing reasons, Dow respectfully requests that this Court adopt Dow's proposed constructions of the disputed claim terms.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Rodger D. Smith II

Rodger D. Smith II (#3778)
1201 N. Market Street
P.O. Box 1347
Wilmington, DE 19899-1347
(302) 658-9200
Attorneys for Plaintiff
The Dow Chemical Company

OF COUNSEL:

Harry J. Roper
Aaron A. Barlow
Raymond N. Nimrod
Darrick J. Hooker
JENNER & BLOCK LLP
330 N. Wabash Avenue
Chicago, IL 60611
(312) 222-9350

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CERTIFICATE OF SERVICE

I, Rodger D. Smith II, hereby certify that on September 4, 2008, I electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing(s) to the following:

Richard L. Horwitz
rhorwitz@potteranderson.com

I also certify that copies were caused to be served on September 4, 2008, upon the following in the manner indicated:

BY EMAIL

Richard L. Horwitz
Potter Anderson & Corroon, LLP
1313 N. Market Street, 6th Floor
Wilmington, DE 19899

BY EMAIL

Jeffrey W. Abraham
Finnegan, Henderson, Farabow
Garrett & Dunner, LLP
901 New York Avenue, N.W.
Washington, DC 20001
jeffrey.abraham@finnegan.com

/s/ Rodger D. Smith II
Rodger D. Smith II (#3778)