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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT AND TRIAL AND APPEAL BOARD

HENKEL CORPORATION
Petitioner

v.

H.B. FULLER COMPANY
Patent Owner

Case IPR2014-00606
Patent 6,833,404

PETITIONER'S REPLY UNDER 37 C.F.R. § 42.23 TO PATENT OWNER'S RESPONSE

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I. INTRODUCTION

In its patent owner response, H.B. Fuller Company ("Fuller") relies entirely on unsupported attorney argument to contend that the Board should reconsider its Decision to Institute. The Board's initial analysis and determination regarding the unpatentability of the instituted claims has been shown to have been correct, and Fuller's response is conspicuous due to its complete lack of evidence to support an alternative conclusion.

Fuller begins by arguing that the preamble "hot melt adhesive" provides essential structure to the challenged claims and is therefore limiting. (Patent Owner's Response, Paper 23 ("Resp.") at 11-15.) But in pages of attorney argument Fuller fails to identify any element or limitation of the claimed structure, i.e., the claimed composition, which is missing from the body of claim. (*Id*.) Fuller instead relies on a smoke screen of irrelevant and unclaimed "improved" properties in an attempt to conceal that any composition comprising the components recited in the body of the claim will function as a hot melt adhesive. (*See, e.g*., *id*. at 12, 19; *see, e.g*., Litz, R.J., Developments in Ethylene-Based Hot Melt Adhesives, Adhesives Age 17(8):35-38 (1974) ("Litz") (Ex. 1005) at 3-4.) When a claim recites the complete essential structure of a composition, the only conclusion is that the preamble is merely an intended use and not a limitation. *Catalina Mktg. Int'l v. Coolsavings.com, Inc*., 289 F.3d 801, 808 (Fed. Cir. 2002).

Fuller also mischaracterizes the evidence of record in an attempt to convince the Board it mistakenly determined that both the Eastotac and the Exxon references disclose each and every element of the claims at issue. (*See, e.g.*, Resp. at 22-41.) But consistent with the Board's review of the prior art, there is no picking and choosing, and all of the elements as arranged in the claims are present in both prior art references. The Eastotac Brochure clearly identifies examples of "Hot Melt Adhesives" meeting every limitation of the instituted claims. (*See, e.g.*, Decision, Institution of *Inter Partes* Review, Paper 11 ("Decision") at 6-8.) Similarly, Fuller does not, and indeed cannot, dispute that the composition disclosed in the Exxon Reference meets each and every element of claims 22-25 and 28 as arranged in the body of those claims. (Resp. at 31-37; *see also id. at* 9-10 (contending only that "no one had demonstrated the *ability to use* [the claimed components] in a hot melt adhesive" (emphasis added)).)

Fuller even disingenuously attempts to distract the Board by arguing that the amount of wax in the Exxon composition is high and "inconsistent" with the '404 patent. (*See, e.g.*, Resp. at 34.) But Fuller can't conceal that the "inconsistent" amounts of wax are actually claimed in the '404 patent, *e.g.*, claims 2, 14, 20 and 21. ('404 patent (Ex. 1001).)

Finally, faced with no evidence or expert testimony to support its own positions, Fuller attempts to mischaracterize the testimony of and discredit

Petitioner's expert, Dr. Hsu, while at the same time relying on aspects of his testimony when it apparently suited Fuller's position. (*See, e.g.*, Resp. at 5-8, 12, 17-22, 25-26, 32-33, 35-36.) The fact remains that Dr. Hsu is an internationally recognized polymer and adhesive expert, who is not only published in the area of hot melt adhesives, but serves as an advisor regarding hot melt adhesives to many in industry. (*See, e.g.*, Curriculum Vitae of Shaw Ling Hsu, Ph.D. (Ex. 1016); Hsu Dep. Tr. (Ex. 1039) at 15:16-20, 25:21-26:19, 263:21-264:6.) Thus, while Fuller wishes to recast the persuasive evidence of record using attorney argument, it cannot escape the actual claim language of the '404 patent, the detailed prior art, and the evidence before the Board. Accordingly, claims 22-25, 27, 28, 31 and 32 of the '404 patent should be cancelled for the reasons presented in the Petition.

II. CLAIM CONSTRUCTION: THE PREAMBLE IS NOT A LIMITATION

The preamble "hot melt adhesive" in claims 22 and 28 is not a limitation to the claims and merely states an intended use because the preamble does not further define the structure of the composition and is merely duplicative of the limitations recited in the body of the claims.

A claim subject to *inter partes* review receives the broadest reasonable construction. *In re Cuozzo Speed Techs., LLC.*, --- F.3d ---, 2015 WL 448667, at *7-8 (Fed. Cir., Feb. 4, 2015). And a preamble is not limiting "where a patentee

defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." *Catalina*, 289 F.3d at 808; *Hayward Indus., Inc. v. Pentair Water Pool & Spa, Inc*., 2014 WL 6617268, at *19 (PTAB Nov. 19, 2014); *ZTE Corp. v. Contentguard Holdings Inc*., 2013 WL 8563794, at *8 (PTAB Jun. 19, 2013). Here, the body of each challenged claim is structurally complete, reciting a specific percentage of a particular tackifying resin and a specific percentage of particular thermoplastic base polymers. (*See, e.g.*, '404 patent (Ex. 1001) at claims 22 and 28.) The preamble "hot melt adhesive" merely refers to the use of that structure. Indeed, Fuller itself admits that the preamble is simply an intended use. (Resp. at 9-10 (attempting to distinguish the claims from the prior art by stating only that "no one had demonstrated the ability *to use* [the claimed components] in a hot melt adhesive." (emphasis added)).)

Moreover, if a preamble "is reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim," it should not be construed as a separate limitation. *American Medical Sys., Inc. v. Biolitec, Inc*., 618 F.3d 1354, 1359 (Fed. Cir. 2010). In this case, both parties agree that a hot melt adhesive is broadly defined as a solid material that flows when heated and forms a bond when cooled to ambient temperature, and it was accepted in the art that a hot melt adhesive generally comprised a tackifier, polymer and optionally a

wax. (Resp. at 5; Amended Petition for *Inter Partes* Review of U.S. Patent No. 6,833,404, Paper 4 at 6; Declaration of Shaw Ling Hsu, Ph.D. ("Hsu Decl.") (Ex. 1015) at ¶ 15.) The body of each challenged claim recites a specific percentage of a particular tackifying resin having a Tg of greater than 65°C. ('404 patent (Ex. 1001) at claims 22 and 28.) The Tg of a tackifier is the temperature at which the polymer turns from rubber to glass. (*See* Hsu Decl. (Ex. 1015) at ¶ 18 (quoting Young, R.J. & Lovell, P.A., Introduction to Polymers (2nd ed., Chapman & Hall, New York 1991) ("Young") (Ex. 1010) at 292).) Thus, the body of each of the challenged claims requires a certain percentage of a tackifier that will begin to flow at temperatures greater than 65°C and will solidify at ambient temperature. The claims also require a specific percentage of a thermoplastic base polymer selected from a subgroup of polymers. ('404 patent (Ex. 1001) at claims 22 and 28.) Like tackifiers, thermoplastic base polymers, including those claimed, soften upon heating and harden upon cooling. (*See* Hsu Decl. (Ex. 1015) at ¶ 24 (citing Young (Ex. 1010) at 10).) Litz explains that the combination of tackifier, polymer and wax results in a hot melt adhesive and varying the amounts alters the properties. (*See, e.g.*, Litz (Ex. 1005) at 3-4.) Thus, the combination of the components listed in the body of each of the claims will function as a hot melt adhesive.

In fact, Fuller does not argue that the *claimed* compositions will not function as hot melt adhesives. Rather, Fuller simply contends, without any support, that

"every composition that includes a resin and a polymer is not a 'hot melt adhesive.'" (Resp. at 13.) But, as noted above, the claims are more specific than just any resin or any polymer. Therefore, because every composition claimed will function as a hot melt adhesive, the preamble is "merely duplicative of the limitations in the body of the claim" and is not a claim limitation. *American Medical,* 618 F.3d at 1359.

Finally, Fuller relies entirely on attorney argument to suggest that the preamble "hot melt adhesive" somehow adds structure to the claims. (*See, e.g.,* Resp. at 14.) Yet Fuller never explains this argument and one is left to guess what structure is actually missing from the body of the claims. (*Id*.) The specification and the prosecution history also fail to explain what other structural element would be needed in order for the claimed compositions to be hot melt adhesives. In fact, contrary to Fuller's arguments, the specification and prosecution history fail to support Fuller's contention that the preamble provides life and meaning to the claims. (Resp. at 12-13.) For example, Fuller never relied on the preamble during prosecution to distinguish the claims from the prior art. (*See, e.g.*, '404 Prosecution History (Ex. 2004) at 35-36.) "Absent clear reliance on the preamble in the prosecution history, or in situations where it is necessary to provide antecedent basis for the body of the claim, the preamble generally is not limiting." *Symantic Corp. v. Computer Assoc. Int'l,* 522 F.3d 1279, 1288 (Fed. Cir. 2008).

Moreover, Fuller's citations to the specification simply show that the preamble "hot melt adhesive" is a label for the overall invention and not a limitation of the claims. *American Medical*, 618 F.3d at 1360-61 (holding that a phrase in the preamble was not limiting even though the same phrase was found in the title, abstract, field of invention, and written description). In fact, in both the specification and prosecution history, the applicant used the terms "hot melt adhesive," "adhesive," and "composition" interchangeably. (*See*, *e.g.*, '404 patent (Ex. 1001), col. 3, ll. 18-24 (stating "the present invention is an adhesive composition"); *id*., col. 13, ll. 20-22 (stating in the Examples section that "[t]he adhesives were prepared"); *id*., col. 15, ll. 38-39 (referring to Example 1 as "a composition useful for packaging applications"); '404 Prosecution History (Ex. 2004) at 132, 242, 243, 244 (referring to the claimed "adhesive compositions"); *id*. at 185, 208 (referring to the "chemically different composition provided by the subject invention.").)

Thus, it is clear from the record that the applicant did not intend any structure to be imported via the "hot melt adhesive" preamble. *Symantic*, 522 F.3d at 1289 ("it is assumed that the preamble language is duplicative of the language found in the body of the claims or merely provides context for the claims, absent any indications to the contrary in the claims, the specification or the prosecution history."). Instead, consistent with the specification and prosecution history, the

preamble "hot melt adhesive" is merely a descriptive name for the set of limitations in the body of the claim and not a claim limitation.[1] *IMS Tech., Inc. v. Haas Automation, Inc*., 206 F.3d 1422, 1434 (Fed. Cir. 2000).

III. CLAIMS 22, 23, 25, 28, 31 AND 32 ARE ANTICIPATED BY THE EASTOTAC BROCHURE

The Board, upon its own review, concluded that the Eastotac Brochure disclosed each and every element of claims 22, 23, 25, 28, 31 and 32. (Decision at 6-8.) Indeed, as the Board recognized, the Eastotac Brochure "expressly states that the resins listed therein are 'especially suited' for hot melt adhesives where 'elevated temperature resistance and high cohesive strength are required.'" (*Id*. at 14.)

Supported only by attorney argument, Fuller contends that Table 1 does not state that any of the listed resins can be used in hot melt adhesives; that Table 3 does not disclose which resins are suitable for use in the hot melt adhesives listed; and therefore, to arrive at the claims requires "picking, choosing and combining"

[1] Fuller also argues that "hot melt adhesive" must be a limitation because the preamble of the dependent claims refer to "[t]he adhesive" of claim 22 or claim 28. (Resp. at 14-15.) The principle of antecedent basis only applies, however, when the *body* of a claim depends on the preamble. *Symantic*, 522 F.3d at 1288.

from "multiple, distinct teachings." (Resp. at 24-29.) But Fuller is wrong, and is mischaracterizing the content of the reference and Dr. Hsu's testimony thereon.

Specifically, Table 3, cited by the Board, is entitled "General Composition Ranges for *Eastotac Resins in Hot Melt Adhesives*." (Eastotac Brochure (Ex. 1002), Table 3 (emphasis added).) Table 3 lists three different examples of hot melt adhesive compositions; including an amorphous polyolefin ("APP") composition and an ethylene-vinyl acetate copolymer ("EVA") composition. (*Id*.) Each hot melt adhesive in Table 3 includes an "Eastotac resin" thereby explicitly *directing* one to Table 1 - titled "Eastotac Hydrocarbon Resins" - and the four resins listed therein, *i.e*., H-100, H-115, H-130, and H-142. (*Id*., Table 1.) Thus, the Eastotac Brochure discloses examples of four APP hot melt adhesives and four EVA hot melt adhesives, including two hot melt adhesives using H-142R. Indeed, Dr. Hsu attested to this, the Board agreed, and Fuller has offered no evidence to the contrary. (*See, e.g*., Hsu Decl. (Ex. 1015) at ¶¶ 41-42, 53-55; Hsu Dep. Tr. (Ex. 1039) at 116:12-17, 116:21-117:3, 118:15-21; 121:7-13, 121:14-18.)

Fuller suggests that Dr. Hsu "confirmed" that neither Table 1 nor Table 3 discloses a hot melt adhesive with H-142R. (Resp. at 25-26.) This is again a mischaracterization of Dr. Hsu's testimony; Dr. Hsu simply confirmed that Table 1 does not specifically recite the words "hot melt adhesives" and Table 3 does not specifically list H-142R. (*See, e.g., id*.) Importantly, Dr. Hsu testified that, while

Table 3 does not identify a specific resin, it "includes all the resin[s] in the previous Table 1." (Hsu Dep. Tr. (Ex. 1039) at 121:14-18; *see also id.* at 116:12-17; 116:21-117:3, 118:15-21; 121:7.) *See Kennametal, Inc. v. Ingersoll Cutting Tool Co*., No. 2014-1350 slip op. 8,11 (Fed. Cir. Mar. 25, 2015) (There is no requirement to "expressly spell out" all the limitations as arranged or combined in the claim and no requirement of "actual performance" of combining elements for anticipation.)

Fuller also argues that the Eastotac Brochure discloses 13 resins. (Resp. at 15.) Again, this is not an accurate statement. The letter at the end of the four disclosed resin numbers simply refers to the color of the resin - all of the other properties of the four resins are identical. (Eastotac Brochure (Ex. 1002), Table 1; *see, e.g*., *id*. at 3 ("Eastotac resins are available in four color levels…"); Hsu Decl. (Ex. 1015) at ¶ 42.) Nonetheless, even if the Brochure is understood to disclose 13 resins, it similarly discloses 13 APP and 13 EVA hot melt adhesives.

Because the Eastotac Brochure teaches each and every element of claims 22, 23, 25, 28, 31 and 32 as arranged in the claims, the Eastotac Brochure anticipates the claims. *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001).[2]

[2] Fuller also argues that U.S. Patent No. 5,331,033 ("the '033 patent") teaches away from the use of H-142R. (Resp. at 29-30.) At best, the '033 patent is silent

IV. CLAIMS 22-25 AND 28 ARE ANTICIPATED BY THE EXXON REFERENCE

The Board found, upon reviewing the Exxon Reference, that it discloses an "adhesive composition" comprising 40% tackifier (Escorez 5340), 20% ethylene copolymer (Escorene UL 7750), and 40% paraffin wax. (Decision at 9.) Thus, Fuller does not, indeed cannot, dispute that that composition in the Exxon Reference ("the Exxon composition") meets each and every element of claims 22-25 and 28 as arranged in the body of the claims. (Resp. at 31-37; *see also id.* at 9-10 (contending only that "no one had demonstrated the *ability to use* [the claimed components] in a hot melt adhesive" (emphasis added)).) Rather, Fuller once again relies exclusively on attorney argument to contend that Henkel has not shown that the Exxon composition is a hot melt adhesive, which is recited in the preamble of the claims. (*Id*. at 33-32.) This argument fails because the claims are not limited by the preamble. It also fails because the Exxon composition is a hot melt adhesive.

Specifically, the Board recognized the Exxon composition is an adhesive comprising a tackifier, an ethylene thermoplastic base copolymer, and a paraffin

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as to the use of H-142R since it fails to mention it. Moreover, whether a reference teaches away from a claim is "inapplicable to an anticipation analysis." *Upsher-Smith Labs. v. Pamlab, LLC*, 412 F.3d 1319, 1323 (Fed. Cir. 2005).

wax. (Exxon Ref. (Ex. 1003) at 2, FN 1.) It is well known in the art that compositions made of tackifiers with thermoplastic base copolymers and/or waxes as recited in the Exxon Reference will function as hot melt adhesives.[3] (*See, e.g.*, Litz (Ex. 1005) at 3-4; '404 patent (Ex. 1001), col. 1, ll. 21-24; Hsu Decl. (Ex. 1015) at ¶¶ 15-26.) Given the components of the composition and in view of the title of the reference ("Specialty Polymers for Adhesives & Sealants"), one of ordinary skill in the art would understand that the Exxon composition will function as a hot melt adhesive. (*See, e.g.*, *id*.)

Notably, Fuller does not contend that the Exxon composition, which it refers to as the "cloud point composition," is not a hot melt adhesive. Instead, Fuller simply argues that the reference does not explicitly state that the Exxon composition is a hot melt adhesive and that Henkel did not make or test the composition. (Resp. at 32-34.) But as Dr. Hsu explained, the Exxon composition would function as a hot melt adhesive and Fuller has offered no evidence to the contrary. (*See, e.g.*, Hsu Decl. (Ex. 1015) at ¶¶ 68-71; *see also* Litz (Ex. 1005) at

[3] Fuller attempts to obscure the issues by focusing on how well certain compositions may or may not function as a hot melt adhesive. (*See, e.g.*, Resp. at 7-8, 31-32, 34-37.) The claims, however, do not require any measure of "bondability" or "heat resistance," and are not limited to any specific application.

3-4; '404 patent (Ex. 1001), col. 1, ll. 21-24.) Thus, regardless of the weight given to the preamble "hot melt adhesive," the Exxon composition, which is a hot melt composition, anticipates claims 22-25 and 28 of the '404 patent.

Fuller also surprisingly contends, based solely on attorney argument, that the amount of wax in the Exxon composition is high and "inconsistent" with the '404 patent. (Resp. at 34-37.) But hot melt adhesives comprising an ethylene copolymer and 40% wax are actually claimed in the '404 patent, *e.g.*, claims 2, 14, 20 and 21. ('404 patent (Ex. 1001).)[4] Indeed, the '404 patent simply states that it is *preferable* to use about 10% to 30% wax, not that 40% wax is prohibited. (*Id.*, col. 9, ll. 57-59.)

Thus, it is clear that the Exxon composition is a hot melt adhesive that meets all the limitations of the claims, whether or not the preamble is limiting. As such, the Exxon Reference anticipates the claims. *Brown*, 265 F.3d at 1351.

V. CLAIM 27 IS OBVIOUS IN VIEW OF THE EASTOTAC BROCHURE OR THE EXXON REFERENCE AND LITZ

As agreed by the Board in its Decision to Institute, the Eastotac Brochure and the Exxon Reference both anticipate claim 22 of the '404 patent. Thus, the

[4] In fact, ethylene copolymer hot melt adhesives with 40% wax are consistent with the art as a whole. (*See, e.g.*, Fuller's U.S. Patent No. 5,939,483 (Ex. 1040), claims 1 and 9; U.S. Patent No. 5,176,779 (Ex. 1041), abstract, Examples 12-16.)

lone difference between the prior art and claim 27 is the recited peel value of greater than about 70ºC. Litz, however, teaches that certain adhesives must meet the freight packaging requirements of Rule 41, which states that adhesives must maintain a bond (i.e., peel value) between -20ºF and +165ºF (-29ºC and 74ºC). (Litz (Ex. 1005) at 2; Hsu Decl. (Ex. 1015) at ¶ 85.) Thus as the Board correctly concluded, one of skill in the art would have been motivated to optimize the compositions in the Eastotac Brochure and the Exxon Reference in order to make a composition with a peel value of greater than about 70ºC. (Decision at 13-14.)

Fuller contends that Henkel has not explained how one of skill in the art would combine the Eastotac Brochure or the Exxon Reference with Litz to arrive at claim 27. (Resp. at 40-41.) But Litz clearly teaches that components, such as waxes, in a hot melt adhesive can be optimized to achieve such a performance parameter. (Litz (Ex. 1005) at 3-4.) Indeed, waxes were known in the art to be useful in increasing peel value. (*See, e.g.*, Hsu Decl. (Ex. 1015) at ¶ 84 (citing Handbook of Adhesives (ed. Irving Skeist) (Ex. 1014)).) Accordingly, Litz provides both the motivation and the know-how to arrive at the claimed adhesives.

Fuller also argues, again without evidence, that the tackifiers of Litz are "disclaimed" by the '404 patent and therefore Litz is somehow incompatible with the art. (Resp. at 39-40.) But this argument ignores the basis for which Litz is relied upon - the commercial motivation for preparing and using a high peel value

adhesive. Moreover, the claims of the '404 patent do not exclude the tackifiers that Fuller contends are disclaimed. ('404 patent (Ex. 1001) at claim 22.) And Fuller points only to an *exemplary* composition in Litz. (Litz (Ex. 1005) at 3.) A reference may be relied upon for all that it would have reasonably suggested to one of skill the art and is not limited to its examples. *Upsher-Smith*, 412 F.3d at 1323.

Accordingly, one skilled in the art would have found it obvious to modify the Eastotac and Exxon compositions to arrive at the as-claimed compositions. *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 415-16 (2007) (claims directed to "a combination which only unites old elements with no change in their respective functions" are obvious).

VI. CONCLUSION

For the reasons set forth herein, the Board's initial determination was correct. The Petitioner established that claims 22-25, 28, 31, and 32 of the '404 patent are anticipated and that claim 27 is obvious in view of the prior art and, therefore, each of the instituted claims should be canceled.

Dated: March 30, 2015

Respectfully submitted,

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APPENDIX 1: LIST OF EXHIBITS

Exhibit No.	Description	Previously Submitted
1001	U.S. Patent No. 6,833,404 ("the '404 patent")	X
1002	Eastotac Hydrocarbon Resins Brochure by the Eastman Company (Aug. 1992) ("the Eastotac Brochure")	X
1003	Specialty Polymers for Adhesives and Sealants by the Exxon Chemical Company (Oct. 1990) ("the Exxon Reference")	X
1004	U.S. Patent No. 5,256,717 (issued Oct. 26, 1993) ("the '717 patent")	X
1005	Litz, R.J., *Developments in Ethylene-Based Hot Melt Adhesives*, Adhesives Age 17(8):35-38 (1974) ("Litz")	X
1006	Clark, T., Bookbinding with Adhesives (3rd ed. McGraw-Hill, UK 1994) ("Clark"), p. 1	X
1007	Alger, M.S., Polymer Science Dictionary (Elsevier Applied Science, New York 1989) ("Alger"), p. 115	X
1008	Lee, S.M., Dictionary of Composite Materials Technology (CRC Press, Technology & Engineering 1995) ("Lee"), p. 43	X
1009	U.S. Patent No. 4,233,432 (issued Nov. 11, 1980) ("the '432 patent")	X
1010	Young, R.J. & Lovell, P.A., Introduction to Polymers (2nd ed., Chapman & Hall, New York 1991) ("Young"), pp. 10-11, 292	X
1011	U.S. Patent No. 5,397,843 (issued Mar. 14, 1994) ("the '843 patent")	X
1012	U.S. Patent No. 5,171,628 (issued Dec. 15, 1992) ("the '628 patent")	X
1013	Publication No. WO 97/09393 (published Mar. 13, 1997) ("the '393 publication")	X
1014	Handbook of Adhesives (ed. Irving Skeist, Van Nostrand Reinhold Co. 1977) ("Skeist"), pp. 495-98	X

1015	Declaration of Shaw Ling Hsu, Ph.D. ("the Hsu Declaration")	X
1016	Curriculum Vitae of Shaw Ling Hsu, Ph.D. ("Hsu CV")	X
1017	American Society for Testing and Materials, Standard Test Method for Softening Point by Ring-and-Ball Apparatus, E-67, from Annual Book of ASTM Standards (1967) ("ASTM E-28")	X
1018	Kraus et al., Tack and Viscoelasticity of Block Copolymer Based Adhesives, J. Adhesion 10:221-36 (1979) ("Kraus")	X
1019	U.S. Patent No. 5,331,033 (issued Jul. 19, 1994) ("the '033 patent")	X
1020	Declaration of Robert C. Schmidt, Jr.	
1021	Current curriculum vitae of Robert C. Schmidt, Jr.	
1022	Eastman Chemical Brochure titled "World of Eastman Chemicals" dated January 1989, Publication No. P-160F	
1023	Eastman Chemical Co. Price List Effective October 1, 1994, Replacing Price List of April 1, 1992	
1024	Eastman AQ Branched Polyesters Brochure dated September 1997, Publication No. WA-62B	
1025	Eastman Chemical Sales Brochure dated February 1993, Publication No. WA-21	
1026	Exxon Chemical Price List of Escorez Tackifying Resins effective March 1, 1988	
1027	Exxon Chemical Material Safety Data Sheet of Escorez 7000 Series dated October 6, 1988	
1028	Letter from Exxon Chemical regarding Samples of Escorez Tackifying Resin ECR-149B dated April 12, 1990	
1029	Letter from Exxon Chemical regarding Updated Version of Escorez Grade Resins dated October 2, 1991	

1030	Exxon Chemical Shipping Order of Certain Escorez Tackifying Resins dated February 24, 1992	
1031	Exxon Chemical TDS of Escorez 2000 series dated September 1993	
1032	Exxon Chemical TDS of Escorez 5000 series dated September 1993	
1033	Exxon Chemical Sales Brochure dated March 1994	
1034	Declaration of Charles W. Paul	
1035	Current curriculum vitae of Charles W. Paul	
1036	Eastman Chemical Eastotac Hydrocarbon Resins dated November 1994, Publication WA-3C	
1037	Exxon Chemical Escorez Tackifiers Brochure dated April 1992	
1038	Transcript of Telephone Conference Call of October 29, 2014	X
1039	Transcript of the deposition of Shaw Ling Hsu of January 14, 2015	X
1040	U.S. Patent No. 5,939,483 (issued Aug. 17, 1999)	X
1041	U.S. Patent No. 5,176,779 (issued Jan. 5, 1993)	X

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e) and 42.105(a), I hereby certify that a true and correct copy of the foregoing **Reply under 37 C.F.R. § 42.23 to Patent Owner's Response and Exhibits 1040 and 1041** were served on March 30, 2015, via electronic mail on counsel of record for the Patent Owner at the correspondence address of the Patent Owner as follows:

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Dated: March 30, 2015

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