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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TOSHIAKI MASUI, TAKESHI INABA, YUUKI KUWAJIMA,
KOSHIRO HAMAGUCHI, and MOTOKI KITAGAWA

Appeal 2019-003075
Application 13/884,945
Technology Center 1700

Before BEVERLY A. FRANKLIN, JEFFREY B. ROBERTSON, and
BRIAN D. RANGE, *Administrative Patent Judges*.

RANGE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–6, 8, 9, and 11–23. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as DAIKIN INDUSTRIES, LTD. Appeal Br. 3.

CLAIMED SUBJECT MATTER²

Appellant describes the invention as relating to a laminated body useful for fuel transporting rubber hoses and having low fuel permeability. Spec. ¶¶ 1–3. In particular, Appellant describes the invention as providing “a laminated body in which a fluorine-contained polymer having a copolymerization unit originating from chlorotrifluoroethylene is strongly bonded to epichlorohydrin rubber.” *Id.* ¶ 9. Claim 1 is the only independent claim on appeal and is illustrative:

1. A laminated body, comprising a rubber layer (A) and a fluoro-resin layer (B) laminated over the rubber layer (A), wherein the rubber layer (A) is a layer comprising a rubber composition for vulcanization,

the rubber composition for vulcanization comprises an epichlorohydrin rubber (a1), at least one compound (a2) selected from the group consisting of salts of 1,8-diazabicyclo(5.4.0) undecene-7, salts of 1,5-diazabicyclo(4.3.0)-nonene-5, 1,8-diazabicyclo(5.4.0) undecene-7, and 1,5-diazabicyclo(4.3.0)-nonene-5, an epoxy resin (a3), and at least one water-carrying substance (a4) selected from a hydrate of a sulfate of a metal selected from the group consisting of calcium, magnesium, sodium, and copper, and/or a hydrate of an acetate of calcium, and a quinoxaline vulcanizing agent, and

the fluoro-resin layer (B) is a layer comprising a fluorine-contained polymer composition and the fluorine-contained polymer composition comprises a fluorine-contained polymer (b1) consisting of a chlorotrifluoroethylene copolymer consisting of (i) chlorotrifluoroethylene and (ii) at least one kind of monomer selected from the group consisting of tetrafluoroethylene, hexafluoropropylene and perfluoro(alkyl vinyl ether),

² In this Decision, we refer to the Final Office Action dated May 31, 2018 (“Final Act.”), the Appeal Brief filed August 27, 2018 (“Appeal Br.”), the Examiner’s Answer dated January 10, 2019 (“Ans.”), and the Reply Brief filed March 8, 2019 (“Reply Br.”).

wherein the rubber composition for vulcanization further comprises at least one vulcanizing agent (a6) selected from the group consisting of thiourea vulcanizing agents, quinoxaline vulcanizing agents, sulfur-contained vulcanizing agents, peroxide vulcanizing agents, and bisphenol vulcanizing agents.

Appeal Br. 12 (Claims App'x).

REFERENCES

The Examiner relies upon the prior art below in rejecting the claims on appeal:

<u>Name</u>	<u>Reference</u>	<u>Date</u>
Robinson et al. ("Robinson")	US 3,341,491	Sept. 12, 1967
Ilo et al. ("Ilo")	US 2005/0208248 A1	Sept. 22, 2005
Funayama et al. ("Funayama '518")	US 2006/0216518 A1	Sept. 28, 2006
Resmini et al. ("Resmini")	US 2007/0264495 A1	Nov. 15, 2007
Funayama et al. ("Funayama '000")	US 8,492,000 B2	July 23, 2013
Shimono et al. ("Shimono")	US 9,266,986 B2	Feb. 23, 2016
Hagiwara et al. ("Hagiwara")	JP 53125297	Nov. 1, 1978

REJECTIONS

The Examiner maintains the following rejections on appeal:

- A. Claims 1, 8, 9, and 13–22 under 35 U.S.C. § 103 as obvious over Ilo in view Resmini, Hagiwara, Funayama '518, and Shimono. Ans. 3.

B. Claims 2–6, 11, and 12 under 35 U.S.C. § 103 as obvious over Ilo in view Resmini, Hagiwara, Funayama '518, and Shimono and further in view of Robinson. *Id.* at 8.

C. Claims 2 and 23 under 35 U.S.C. § 103 as obvious over Ilo in view Resmini, Hagiwara, Funayama '518, and Shimono and further in view of Funayama '000. *Id.* at 9.

OPINION

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential), *cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”). After considering the evidence presented in this Appeal and each of Appellant’s arguments, we are not persuaded that Appellant identifies reversible error. Thus, we affirm the Examiner’s rejections for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.

Appellant does not present any substantively distinct arguments for the Examiner’s second or third rejection or for any dependent claims. *See* Appeal Br. *passim*. Therefore, consistent with the provisions of 37 C.F.R. § 41.37(c)(1)(iv) (2013), we limit our discussion to claim 1, and all other claims on appeal stand or fall together with claim 1.

The Examiner rejects claim 1 as under 35 U.S.C. § 103 as obvious over Ilo in view Resmini, Hagiwara, Funayama '518, and Shimono. Ans. 3. Appellant does not dispute the prima facie rejection, but instead argues that claim 1 is not obvious in view of unexpected results. Appeal Br. 6–9.

Our reviewing court has explained that “an applicant may overcome a *prima facie* case of obviousness by establishing that the [claimed] range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” *Peterson*, 315 F.3d at 1330 (internal quotes and citation omitted). We have carefully considered Appellant’s evidence and arguments, but the proffered evidence is ultimately unpersuasive.

Appellant’s burden requires Appellant to identify factual evidence that shows unexpected results relative to the closest prior art. *See In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991). Here, Appellant makes a comparison between Example 1 of Appellant’s Specification and the same composition but substituting the fluorine resin RP5000 for Appellant’s fluoro-resin. Appeal Br. 6–7; *see also* Jan. 24, 2018, Declaration of Yuk Kuwajima ¶¶ 4–6 (“Kuwajima Decl.”). The Examiner maintains that this comparison is not a proper comparison to an example of Ilo, and we agree. Ans. 10.

Ilo’s explanation of its experimental results refers to the RP5000 component Appellant tested as “Acid-Modified ETFE.” Ilo ¶¶ 66–67. Different possible components include, for example, “PPS Resin Containing a Softening Component” and “Acid-Modified Conductive ETFE.” *Id.* ¶¶ 56–77.³ Ilo’s “Acid-Modified Conductive ETFE” consists of RP5000/AS rather than the RP5000 that Appellant tested. *Id.* ¶¶ 68–69.

Ilo’s Table 5 through Table 9 provide Ilo’s experimental results. *Id.* ¶¶ 88–93. Ilo states that each of its twenty-six examples (in contrast to Ilo’s

³ PPS refers to polyphenylene sulfide. Ilo ¶ 22.

five comparative examples) have “excellent interlaminar adhesion.” *Id.* ¶ 93. Only two of Ilo’s twenty-six examples make use of the Acid-Modified ETFE (i.e., RP5000)—examples four and sixteen. Example four uses the Acid-Modified ETFE only as an outer layer alongside acid-modified electrically conductive ETFE. *Id.* at Table 5. Example sixteen uses the Acid-Modified ETFE in conjunction with an intermediate layer of PPS containing a softening component.

Appellant’s “Added Comparative Example 4” does not include, for example, the acid-modified electrically conductive ETFE of Ilo example four or the PPS containing a softening component of Ilo example sixteen. As such, Appellant’s comparison does not establish superior results as compared to any example of Ilo. Indeed, the preponderance of the evidence (from Ilo) indicates that when Ilo’s teachings are followed (rather than modified as Appellant has done), Ilo achieves excellent adhesion. Ilo ¶ 93.

Evidence of unexpected results also must also be reasonably commensurate with the scope of the claims. *In re Peterson*, 315 F.3d 1325, 1330–31 (Fed. Cir. 2003) (explaining that applicant may overcome a prima facie case of obviousness by showing unexpected results but the showing of unexpected results “must be commensurate in scope with the claims which the evidence is offered to support”) (internal quotes and citation omitted). “If an applicant demonstrates that an embodiment has an unexpected result and provides an adequate basis to support the conclusion that other embodiments falling within the claim will behave in the same manner, this will generally establish that the evidence is commensurate with scope of the claims.” *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011).

The Examiner finds that Appellant’s examples (both the inventive and comparative example) include numerous components that are not recited in claim 1 and determines that claim 1, therefore, has a broader scope than the materials Appellant tested. Ans. 12. We agree with the Examiner that Appellant’s proffered evidence of unexpected results is not commensurate with the scope of claim 1. On this record, Appellant has not established that Appellant’s claimed invention (as set forth by claim 1) achieves superior results rather than the combination of all tested components achieving the superior results. Appellant has also not established that inclusion or exclusion unrecited components does not impact the superior results. Appellant argues that a person of skill in the art would understand that the unrecited components “would be recognized as not essential to the adhesiveness between the rubber layer and fluoro resin layer,” but Appellant identifies no evidence to support this argument. Reply Br. 4. “[A]rguments of counsel cannot take the place of evidence lacking in the record.” *Estee Lauder Inc. v. L’Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997) (internal quotes and citation omitted).

Appellant, therefore, has not adequately established unexpected results and, as such, has not identified reversible error in the Examiner’s rejections.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 8, 9, 13–22	103	Ilo, Resmini, Hagiwara, Funayama '518, Shimono	1, 8, 9, 13–22	

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
2-6, 11, 12	103	Ilo, Resmini, Hagiwara, Funayama '518, Shimono, Robinson	2-6, 11, 12	
2, 23	103	Ilo, Resmini, Hagiwara, Funayama '518, Shimono, Funayma '000	2, 23	
Overall Outcome			1-6, 8, 9, 11-23	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED