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3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			CHEN, VIVIAN	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KLAUS D. SCHAPPERT

Appeal 2018-003339
Application 14/342,441
Technology Center 1700

Before BEVERLY A. FRANKLIN, LINDA M. GAUDETTE, and LILAN REN,
Administrative Patent Judges.

GAUDETTE, *Administrative Patent Judge.*

DECISION ON APPEAL¹

¹ This Decision includes citations to the following documents: Specification filed Mar. 3, 2014 (“Spec.”); Final Office Action dated Nov. 28, 2016 (“Final”); Appeal Brief filed Aug. 29, 2017 (“Appeal Br.”); Examiner’s Answer dated Dec. 8, 2017 (“Ans.”); and Reply Brief filed Feb. 8, 2018 (“Reply Br.”).

Appellant² appeals under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 1–15 under 35 U.S.C. § 103(a) over Kollaja (US 6,869,496 B1, issued Mar. 22, 2005) and Schaderbrodt (US 2004/0259034 A1, published Dec. 23, 2004), and claim 11 over Kollaja, Schaderbrodt, and Zhu (US 6,010,564, issued Jan. 4, 2000). We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

The “invention relates to melt-processed films that are receptive to solvent-based inkjet inks and methods of printing onto such films to make a graphic suitable for application on vehicles or buildings,” e.g., as an advertising or promotional display. Spec. 1:6–9. Claim 1, the sole independent claim on appeal, is reproduced below:

1. Film having a polyester layer comprising
a blend of amorphous polyester and a copolymer of an olefin
and a hydrocarbon ester of an acrylic acid,
wherein the amount of copolymer is at least 30 parts per 100
parts by weight of amorphous polyester and
wherein the polyester layer exhibits an E-modulus at 23°C of at
least 200 N/mm².

Appeal Br. 8.

The Examiner finds Kollaja discloses a film as recited in claim 1 with the exception that Kollaja “does not explicitly disclose the recited olefin / acrylic ester copolymers.” Final 2–3. The Examiner finds, however, that Kollaja discloses the film may include “a polymeric filler (e.g., a polyolefin-based resin having a melting point preferably, but not necessarily, above 80 deg C, etc.) . . . in typical amounts of 1–35 parts per hundred parts of resin.” *Id.*; *see also* Kollaja 7:40–44,

² The Appellant is 3M Innovative Properties Company. Appellant identifies itself and 3M Company as the real parties in interest. Appeal Br. 2.

53–55. The Examiner finds Kollaja discloses examples of polymeric films comprising Elvaloy, an ethylene/glycidyl methacrylate/n-butyl acrylate terpolymer copolymer, as a polymer additive. Ans. 7 (citing Kollaja 16:8–10). The Examiner finds the use of Elvaloy in Kollaja “makes it reasonably clear that the reference considers copolymers of ethylene and (meth)acrylates (i.e., esters of acrylic acid or methacrylic acid) to be a suitable type of polyolefin resin[] for the polymeric filler component of the disclosed films.” *Id.* The Examiner finds Schadebrodt evidences that “commercially available ethylene/alkyl acrylate copolymers such as LOTRYL are capable of having melting points approaching or greater than 80 degrees C.” Final 3. The Examiner finds one of ordinary skill in the art would have utilized “known polyolefin resins with melting points of at least 80 degrees C such as the commercially available ethylene/alkyl acrylate copolyesters as disclosed in [Schadebrodt] as a polymeric filler component in the films of [Kollaja] in order to modify and tailor the mechanical and physical properties of the film for specific applications.” *Id.*

Appellant argues Kollaja’s broad disclosure of suitable fillers as including “amorphous or semicrystalline polyolefin resins” (Kollaja 7:40–41) “embraces an enormous number of polymers and copolymers[, and the] number of polyolefins having a melting temperature greater than 80° C is, for all practical purposes, uncountable.” Appeal Br. 6. Appellant contends the Examiner relies on impermissible hindsight in finding one of ordinary skill in the art would have singled out the ethylene/alkyl acrylate copolymers taught in Schadebrodt for use in Kollaja. *Id.*; *see also* Reply Br. 2 (“The observation that an ethylene/alkyl acrylate copolymer is commercially available in no way teaches or suggests which, if any, of this class of copolymers could be selected to blend with amorphous polyester in order to provide the now claimed film.”). Appellant further argues that the

Examiner fails to explain why the ordinary artisan would have selected a polyolefin resin that would result in a polyester layer that exhibits an E-modulus at 23°C of at least 200 N/mm² as required by claim 1. Reply Br. 2–3 (noting Kollaja’s Example 8 polymeric film comprising Elvaloy PBT exhibited an E-modulus at 23°C of 189 N/mm² (*see* Kollaja Table 4)).

An obviousness rejection predicated on selection of one or more components from numerous possible choices may be appropriate if the prior art provides direction as to which of many possible choices is likely to be successful. *See PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1364 (Fed. Cir. 2007); *In re O’Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988).

Kollaja broadly discloses the use of polyolefin resins as suitable fillers and lists three commercially available fillers, one of which is Elvaloy PTW, an ethylene/glycidyl methacrylate/n-butyl acrylate terpolmer copolymer. Kollaja 7:40–53, 16:8–9. The Examiner reasons that the ordinary artisan would have utilized a different commercially available ethylene / alkyl acrylate copolymer, sold under the name Lotryl, based on Schadebrodt’s disclosure of three Lotryl copolymers having melting points approaching, or greater than, 80 degrees C, for the purpose of adjusting the mechanical and physical properties of Kollaja’s film for specific applications. Final 3. The Examiner, however, fails to identify any particular property in Kollaja’s film that the ordinary artisan would have sought to modify that would have led the ordinary artisan to select one of the three, identified Lotryl copolymers.

Because the Examiner has not explained sufficiently the reason why an ordinary artisan would have selected a copolymer of an olefin and a hydrocarbon ester of an acrylic acid for use in Kollaja’s film that would result in a polyester

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layer that “exhibits an E-modulus at 23°C of at least 200 N/mm²” as required by claim 1, we determine the rejection is based on impermissible hindsight reasoning.

Accordingly, we do not sustain the rejection of claim 1 and its dependent claims 2–15. Nor do we sustain the separate rejection of claim 11, as it is based on the same inadequate reasoning relied on by the Examiner in rejecting claim 1.

REVERSED