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180735	7590	06/08/2022	EXAMINER	
LEYDIG VOIT & MAYER, LTD (AGFA) TWO PRUDENTIAL PLAZA, SUITE 4900 180 NORTH STETSON AVENUE CHICAGO, IL 60601-6731			REDDY, SATHAVARAM I	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JÜRGEN JUNG, RITA TORFS,  
MARC BERNARD GRAINDOURZE, and  
RENE GEELLEN<sup>1</sup>

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Appeal 2021-003163  
Application 14/370,977  
Technology Center 1700

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Before JEFFREY W. ABRAHAM, CHRISTOPHER C. KENNEDY, and  
JENNIFER R. GUPTA, *Administrative Patent Judges*.

KENNEDY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner’s  
decision rejecting claims 16–29. We have jurisdiction under 35 U.S.C.  
§ 6(b).

We REVERSE.

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<sup>1</sup> “Appellant” refers to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as AGFA NV. App. Br. 4.

## BACKGROUND

The subject matter on appeal relates to inkjet ink compositions. *E.g.*, Spec.<sup>2</sup> ¶ 2; Claim 16. Claim 16 is reproduced below from page 22 (Claims Appendix) of the Appeal Brief:

16. An inkjet ink set consisting of:
  - a black inkjet ink, a cyan inkjet ink, and two inkjet inks A and B, optionally complemented by a white inkjet ink and/or a colourless inkjet ink; wherein
  - the inkjet ink A has a hue angle  $H^*$  between 70 and 85 and a chroma  $C^*$  between 30 and 80;
  - the inkjet ink B has a hue angle  $H^*$  between 20 and 40 and a chroma  $C^*$  between 30 and 80; and
  - CIE  $L^*$   $a^*$   $b^*$  coordinates are determined on a polyethylene coated white paper for a  $2^\circ$  observer under a D50 light source and used to calculate the hue angle  $H^*$  and the chroma  $C^*$  of the inkjet ink A and the inkjet ink B.

## REJECTIONS ON APPEAL

The claims stand rejected under 35 U.S.C. § 103 as follows:

1. Claims 16–22 and 24–29 over Pop (US 2003/0098986 A1, published May 29, 2003) and Hoogmartens (US 2010/0047455 A1, published Feb. 25, 2010).
2. Claim 23 over Pop, Hoogmartens, and Verdonck (US 2010/0302300 A1, published Dec. 2, 2010).

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<sup>2</sup> Citations to “Spec.” are to the “Substitute Specification” dated July 8, 2014.

## ANALYSIS

All claims on appeal, either directly or through claim dependency, require that inks A and B have a particular hue angle  $H^*$  and chroma  $C^*$ . *See* Appeal Br. 22 (Claims Appendix).

The Examiner finds, *inter alia*, that Hoogmartens teaches or suggests inks that fall within the scope of inks A and B of claim 16 because Hoogmartens broadly teaches mixtures of pigments, and lists specific pigments C.I. Pigment Orange 71, C.I. Pigment Yellow 139, C.I. Pigment Red 254, C.I. Pigment Red 122, and C.I. Pigment Orange 71 amongst a long list of suitable pigments. Ans. 4 (citing Hoogmartens ¶¶ 68–76). The Examiner finds that, because claims 19 and 21 depend from claim 16 and use specific pigments listed above, if those pigments were selected, Hoogmartens' inks “would intrinsically have”  $H^*$  and  $C^*$  values within the scope of claim 16. Ans. 6.

That rationale is not persuasive for reasons explained by the Appellant in the Appeal Brief. *See* Appeal Br. 12–16. It is undisputed that the use of the recited pigments alone is not adequate to guarantee that the  $H^*$  and  $C^*$  limitations are met. The Appellant argues, and the Examiner does not persuasively dispute, that the  $H^*$  and  $C^*$  limitations “are not only achieved by selecting specific pigments, but also by the amounts of the pigments used and the weight ratio of the different pigments in the mixture.” Appeal Br. 12. We agree with the Appellant that the Examiner has not shown that all inks with mixtures of the recited pigments inherently possess  $H^*$  and  $C^*$  values within the scope of claim 16.

In that regard, we observe that the Appellant provides certain calculations using Hoogmartens' examples to support their position that all

mixtures of the recited pigments do not inherently lead to the claimed H\* and C\* values. Appeal Br. 12–13. In the Answer, the Examiner does not dispute the accuracy of the calculations but nevertheless disregards them as “attorney arguments and not evidence.” Ans. 11. That was error. There is no dispute that the calculations are based on examples disclosed by Hoogmartens, and there is no dispute as to the accuracy of the calculations. Because Hoogmartens itself is evidence, the calculations made using the data from Hoogmartens examples should not have been disregarded as mere “attorney arguments.” *See id.*

Notwithstanding the fact that the Examiner has not shown that all mixtures of the recited pigments inherently lead to H\* and C\* values within the scope of claim 16, the disputed subject matter of claim 16 may have nevertheless been obvious if Hoogmartens teaches or suggests combining pigments in a way (e.g., optimizing the weight ratios of the pigments) that would have resulted in H\* and C\* values within the scope of claim 16. Relevant to that, the Examiner finds that Hoogmartens teaches that its pigments or mixture of pigments is present “in an amount of 0.1 to 20% by weight based on the total weight of the non-aqueous inkjet ink.” Ans. 4 (citing Hoogmartens ¶ 87).

That disclosure is not adequate because it concerns the total amount of pigment in the ink, and the Examiner does not explain how it relates to, e.g., the ratio of different pigments within the ink. For example, claim 19 depends indirectly from claim 16 and requires the inkjet ink A to include “a mixture of C.I. Pigment Orange 71 and C.I. Pigment Yellow 139.” As set forth above, the record does not establish that *all* mixtures of C.I. Pigment Orange 71 and C.I. Pigment Yellow 139 would result in H\* and C\* values

within the scope of claim 16. Rather, it is undisputed that the ratio of C.I. Pigment 71 to C.I. Pigment Yellow 139 in the mixture would influence the H\* and C\* values of the mixture. The Examiner has not identified any disclosure in Hoogmartens, or otherwise provided a persuasive explanation, as to whether or how Hoogmartens teaches or suggests combining its pigments in a way that would have led to H\* and C\* values within the scope of claim 16. *Cf. Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002) (inherency requires “that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.”); *Belden Inc. v. Berk–Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (obviousness “concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.” (emphases in original)).

On this record, the Examiner has not established that the prior art teaches or suggests inks having the recited H\* and C\* values of claim 16. Accordingly, we reverse the Examiner’s rejection of claim 16. Because all other claims on appeal include the H\* and C\* limitations through claim dependency, we likewise reverse the Examiner’s rejections of claims 17–29.

CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References</b>	<b>Affirmed</b>	<b>Reversed</b>
16–22, 24–29	103	Pop, Hoogmartens		16–22, 24–29
23	103	Pop, Hoogmartens, Verdonck		23
<b>Overall Outcome</b>				16–29

REVERSED