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**Datasheet for the decision
of 20 January 2022**

Case Number: T 1881/19 - 3.3.02

Application Number: 12194284.1

Publication Number: 2599842

IPC: C09D11/10, C09D11/101,
C09D11/322, C09D11/107

Language of the proceedings: EN

Title of invention:

Light-curable ink composition for ink jet recording and ink
jet recording method using the same

Patent Proprietor:

Seiko Epson Corporation

Opponent:

AGFA NV

Headword:

Relevant legal provisions:

EPC Art. 54, 56

RPBA Art. 12(4)

RPBA 2020 Art. 12(2), 25(2)

Keyword:

Novelty
Inventive step
Late-filed objection
Late-filed document

Decisions cited:

G 0002/88, T 0332/87, T 1076/00, T 0266/07

Catchword:



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Case Number: T 1881/19 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 20 January 2022

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
29 April 2019 concerning maintenance of the
European Patent No. 2599842 in amended form.**

Composition of the Board:

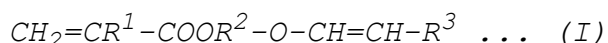
Chairman M. O. Müller
Members: S. Bertrand
M. Blasi

Summary of Facts and Submissions

I. The opponent's appeal lies from the opposition division's interlocutory decision that European patent No. 2 599 842 in amended form according to the main request containing the set of claims filed on 2 July 2018 met the requirements of the EPC.

II. Independent claims 1 to 3 of the main request read as follows:

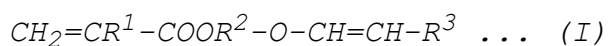
"1. A light-curable ink composition for ink jet recording comprising a coloring material, a polymerizable compound, and a photopolymerization initiator, wherein the coloring material contains at least C.I. Pigment Yellow 155, and the polymerizable compound contains at least a vinyl-ether-containing (meth)acrylate represented by general formula (I) below, with the vinyl-ether-containing (meth)acrylate present in an amount of 10 to 65% by mass based on a total mass of the ink composition:



where R^1 is a hydrogen atom or a methyl group, R^2 is a divalent organic residue having 2 to 20 carbon atoms, and R^3 is a hydrogen atom or a monovalent organic residue having 1 to 11 carbon atoms; and wherein C.I. Pigment Yellow 155 is present in an amount of 0.1 to 6% by mass relative to the total mass of the ink composition; and wherein the polymerizable compound further contains a monofunctional (meth)acrylate other than the vinyl-ether-containing (meth)acrylate in an amount of 10 to

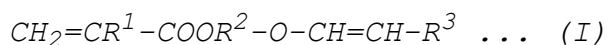
60% by mass based on a total mass of the ink composition."

"2. A light-curable ink composition for ink jet recording comprising a coloring material, a polymerizable compound, and a photopolymerization initiator, wherein the coloring material contains at least C.I. Pigment Yellow 155, and the polymerizable compound contains at least a vinyl-ether-containing (meth)acrylate represented by general formula (I) below, with the vinyl-ether-containing (meth)acrylate present in an amount of 10 to 30% by mass based on a total mass of the ink composition:



where R^1 is a hydrogen atom or a methyl group, R^2 is a divalent organic residue having 2 to 20 carbon atoms, and R^3 is a hydrogen atom or a monovalent organic residue having 1 to 11 carbon atoms; and wherein C.I. Pigment Yellow 155 is present in an amount of 0.1 to 6% by mass relative to the total mass of the ink composition."

"3. A light-curable ink composition for ink jet recording comprising a coloring material, a polymerizable compound, and a photopolymerization initiator, wherein the coloring material contains at least C.I. Pigment Yellow 155, and the polymerizable compound contains at least a vinyl-ether-containing (meth)acrylate represented by general formula (I) below, with the vinyl-ether-containing (meth)acrylate present in an amount of 10 to 65% by mass based on a total mass of the ink composition:



where R^1 is a hydrogen atom or a methyl group, R^2 is a divalent organic residue having 2 to 20 carbon atoms, and R^3 is a hydrogen atom or a monovalent organic residue having 1 to 11 carbon atoms; and wherein C.I. Pigment Yellow 155 is present in an amount of 0.1 to 3% by mass relative to the total mass of the ink composition."

III. The following documents are referred to in the decision:

D2	EP 2 399 966 A1
D4	EP 2 399 965 A1
D6	EP 2 305 762 A1
D7	EP 2 053 101 A1
D8	EP 2 053 102 A1
D9	EP 2 568 022 A2
D10	US 2009/0280302 A1
D11	US 2009/0099277 A1
D12	US 2008/0166495 A1
A013	WO 2007/006637 A2
A014	Herbst, Industrial Organic Pigments, 1997, Pigment Yellow 155, pages 264-265 and 358-359

IV. The opposition division came *inter alia* to the following conclusions:

- The subject-matter of the claims according to the main request was novel in view of any of D2, D4, D6, D8, D9, D11 and D12.
- The subject-matter of the claims according to the main request involved an inventive step in view of D10 as the closest prior art, either alone or in combination with any of D6 and D8, or in view of D6 or D8 as the closest prior art alone.

- V. In its statement setting out the grounds of appeal, the opponent ("appellant") submitted documents A013 and A014. It contested the opposition division's reasoning and submitted that the subject-matter of the claims of the main request was not novel in view of any of D2, D4, D6, D8, D9, D11 and D12, and did not involve an inventive step in view of any of D6, D10 and A013 as the closest prior art.
- VI. In its reply to the grounds of appeal, the patent proprietor ("respondent") provided counter-arguments regarding novelty and inventive step.
- VII. In a further letter dated 29 April 2020, the respondent re-submitted annotated and clean versions of the claims according to auxiliary requests 1 to 7 filed before the opposition division.
- VIII. On 10 May 2021, the board issued a communication in preparation for oral proceedings, which had been arranged as requested by the parties. The board's preliminary opinion was that the main request appeared to be allowable.
- IX. Oral proceedings before the board were held on 20 January 2022 by videoconference.
- X. The appellant's submissions, where relevant to the present decision, may be summarised as follows:

Main request

Novelty in view of D6

- The compositions of ink-8 to ink-12 (table 6 of D6) comprised the components in the amounts required by claim 3 of the main request, except for the specific yellow pigment. Paragraph [0034] of D6 referred to yellow inks and pigments

disclosed in paragraphs [0128] to [0138] of D3. Replacing the colour pigments used in ink-8 to ink-12 with C.I. Pigment Yellow 155 destroyed the novelty of the subject-matter of claim 3 of the main request. Different passages of a prior-art document could be combined, as referred to in decision T 332/87.

- General disclosure of D6
 - The combination of claims 1, 3 and 6 and paragraphs [0044], [0070] and [0078] of D6 anticipated the subject-matter of claims 1 and 3 of the main request.

Novelty in view of D2, D4, D8, D9, D11 and D12

- Example INV-34 of D2, examples INV-2, INV-11, INV-20 and INV-35 of D4, all the inventive examples of D8, examples 1 to 8 and 10 to 12 of D9, example 4A of D11 and example 102 of figure 9 of D12 anticipated the subject-matter of claims 1, 2 and/or 3 of the main request. Like the examples of D6, these documents disclosed replacing the pigment in the above examples with C.I. Pigment Yellow 155.
- The subject-matter of claims 1, 2 and/or 3 lacked novelty in view of the general disclosure of D2 (claims 1, 2 and 5; paragraphs [0089] and [0097]) and in view of the general disclosure of D4 (claims 1 and 2; paragraphs [0088] and [0096]).

Inventive step in view of D10 as the closest prior art

- The subject-matter of claim 2 of the main request did not involve an inventive step for the following reasons.

- Embodiment 4 in table 3 of D10 related to an ink composition comprising 74.8 wt.% VEEA ((2-vinylethoxy)ethyl acrylate), photopolymerisation initiators "Irgacure 819" and "Irgacure 127" and 6 wt.% C.I. Pigment Yellow 155.
- The distinguishing feature of claim 2 of the main request in view of embodiment 4 of D10 was the amount of the compound of formula (I).
- The technical effect achieved by the distinguishing feature was to obtain an ink having further improved storage stability. The objective technical problem was providing a yellow ink having further improved storage stability.
- D10 (paragraph [0054]) taught a range encompassing a VEEA content as required by claim 2 of the main request. Investigating the influence of the amount of VEEA on storage stability was routine experimentation.

Inventive step in view of D6 as the closest prior art

- The inventive-step objection based on D6 alone was discussed before the opposition division and was part of the impugned decision (point 2.5.2.1).
- The subject-matter of claim 3 of the main request did not involve an inventive step for the following reasons.
- The compositions of ink-8 to ink-11 of D6 comprised 35 to 58.85 wt.% VEEA, GenoradTM 16 (a polymerisation initiator) and 3 wt.% of a pigment mixture (blue pigment PB15:4 and black pigment PB7).

- The distinguishing feature of claim 3 of the main request in view of ink-8 to ink-11 was the presence of C.I. Pigment Yellow 155.
- The technical effect achieved by the distinguishing feature was merely obtaining an ink having a different colour. The objective technical problem was providing an alternative ink.
- It was obvious to add a different pigment, such as C.I. Pigment Yellow 155, to arrive at the subject-matter of claim 3 of the main request.

XI. The respondent's submissions, where relevant to the present decision, may be summarised as follows:

Novelty in view of D6

- The compositions of ink-8 to ink-12 of D6 did not comprise C.I. Pigment Yellow 155. The situation was different from that in T 332/87. There was no disclosure in D6 that the pigment in the compositions of ink-8 to ink-12 in D6 could be swapped for C.I. Pigment Yellow 155.
- Considering the appellant's approach based on selecting features in D6 to arrive at the claimed subject-matter, there was a first selection of the amount of VEEA and at least a second selection of the pigment, i.e. the selection of C.I. Pigment Yellow 155.
- General disclosure of D6
 - The combination of claims 1, 3 and 6 and paragraphs [0044], [0070] and [0078] of D6 did not disclose the subject-matter of claims 1 and 3 of the main request. To arrive at the claimed

subject-matter, it was necessary to make a first selection of the amount of the vinyl-ether-containing (meth)acrylate in claim 1 of D6 and a second selection of C.I. Pigment Yellow 155 from the list of pigments in D3 (cited in paragraph [0070] of D6).

Novelty in view of D2, D4, D8, D9, D11 and D12

- The reasoning given for the examples of D6 also applied to the cited disclosures of D2, D4, D8, D9, D11 and D12. There was no disclosure in the documents to replace the pigment of the above examples with a pigment disclosed in the description of said documents.
- The subject-matter of claims 1, 2 and/or 3 was novel in view of the cited general disclosure of D2 and in view of the cited general disclosure of D4. More than one selection was required in order to arrive at the claimed subject-matter and there was no pointer to combine the selections.

Admittance of A013 and A014

- A013 and A014 should not be admitted into the appeal proceedings since they could and should have been filed during the proceedings before the opposition division.

Inventive step in view of D10 as the closest prior art

- The distinguishing feature of claim 2 of the main request in view of embodiment 4 of D10 was the amount of the compound of formula (I).

- The technical effect achieved by the distinguishing feature was obtaining an ink having further improved storage stability, as shown by examples 1 to 3 and 6 to 14 of the patent in comparison with comparative example 3. The objective technical problem was providing a yellow ink having further improved storage stability.
- D10 did not teach reducing the VEEA content to a range of 10 to 30% by mass to improve the stability of the ink composition.
- Thus, the skilled person would not have arrived at the subject-matter of claim 2 of the main request, which involved an inventive step in view of D10 as the closest prior art.

Inventive step in view of D6 as the closest prior art

- The distinguishing feature of claim 3 of the main request in view of ink-8 to ink-11 was the presence of 0.1 to 3.0% by mass C.I. Pigment Yellow 155.
- The technical effect achieved by the distinguishing feature was obtaining a good balance between storage stability, curability and weather resistance, as shown by the comparison of comparative example 3 with comparative example 4 and the comparison of example 1 with example 13 of the patent. The objective technical problem was providing a yellow ink having improved weather resistance.
- D6 did not teach selecting C.I. Pigment Yellow 155 to improve the weather resistance of a yellow ink composition.

- Thus, the subject-matter of claim 3 of the main request involved an inventive step.

XII. The parties' requests were the following:

The appellant requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

The respondent requested:

- that the appeal be dismissed, implying that the patent be maintained on the basis of the main request held allowable by the opposition division,
- or alternatively, that the patent be maintained in amended form on the basis of one of the sets of claims of auxiliary requests 1 to 7 submitted before the opposition division.

Reasons for the Decision

Main request (claims filed on 2 July 2018)

Novelty

1. The appellant asserted that the claimed subject-matter was not novel in view of any of D2, D4, D6, D8, D9, D11 and D12.
2. Novelty in view of D6
 - 2.1 Ink-8 to ink-11 of D6
 - 2.2 The appellant contested the novelty of the subject-matter of claim 3 in view of ink-8 to ink-11 of D6.

2.3 As set out above (II, *supra*), independent claim 3 of the main request relates to a light-curable ink composition for ink jet recording comprising a coloring material containing at least C.I. Pigment Yellow 155, a polymerisable compound containing a vinyl-ether-containing (meth)acrylate of formula (I), and a photopolymerisation initiator.

Claim 3 is characterised *inter alia* as follows:

- The vinyl-ether-containing (meth)acrylate contained in the polymerisable compound is present in an amount of 10 to 65% by mass relative to the total mass of the ink composition.

- C.I. Pigment Yellow 155 is present in an amount of 0.1 to 3% by mass relative to the total mass of the ink composition.

The compositions of ink-8 to ink-11 (table 6 of D6) comprise 35, 50, 55 or 58.85 wt.% VEEA, GenoradTM 16 (a polymerisation initiator; paragraph [0136] of D6) and 15 wt.% of a dispersion D-2 (table 5 of D6), which comprises *inter alia* a pigment mixture of a black pigment PB7 (paragraph [0119] of D6) and blue pigment PB15:4 (paragraph [0117] of D6). The calculated amount of PB7 and PB15:4 in the compositions of ink-8 to ink-11, as submitted by the appellant, is 3 wt.%.

VEEA is a compound of formula (I) as defined in claim 3 of the main request and thus corresponds to the polymerisable compound of claim 3. Its amounts (35, 50, 55 or 58.85 wt.%) fall within the range of 10-65% by mass mentioned in claim 1 of the main request.

The parties did not dispute that GenoradTM 16 was a photopolymerisation initiator, as required by claim 3 of the main request.

As submitted by the appellant, the composition of claim 3 of the main request differs from any of ink-8 to ink-11 of D6 in that it contains the pigment C.I. Pigment Yellow 155 rather than the black pigment PB7 and blue pigment PB15:4 of D6.

- 2.3.1 The appellant argued that claim 6 of D6 disclosed a colour pigment in general, meaning that D6 was not only limited to the three coloured inks disclosed in the examples. Paragraph [0034] of D6 referred to yellow inks. In order to compose a yellow ink according to D6, the blue pigment PB15:4 and the black pigment PB7 needed to be replaced with a yellow pigment. D6 (paragraph [0070]) referred to the pigments disclosed in paragraphs [0128] to [0138] of D3. In particular, D3 (paragraph [0130]) referred to C.I. Pigment Yellow 155: *"The most preferred yellow pigments are C.I. Pigment Yellow 120, 139, 150, 155 and 213."* The appellant further submitted that selecting C.I. Pigment Yellow 155 from a list of pigments and using it instead of the colour pigment used in ink-8 to ink-11 destroyed the novelty of claim 3 of the main request, arguing that different passages of a prior-art document could be combined if there were reasons for doing so, as referred to in decision T 332/87, Reasons 2.2.
- 2.3.2 The board does not agree. According to decision T 332/87, Reasons 2.2, *"when examining novelty, different passages of one document may be combined provided that there are no reasons which would prevent a skilled person from such a combination. In general the technical teaching of examples may be combined with that disclosed elsewhere in the same document, e.g. in the description of a patent document, provided that the example concerned is indeed representative for the general technical teaching disclosed in the respective document"*. This decision (see Reasons 2.3 and 2.4) was

concerned with a prior-art document (9) disclosing i) emulsion polymers in the examples and ii) the use of these polymers in coatings and for application as adhesives in the description, implying the presence of fillers in the composition. The board in that case considered that the skilled person would have taken the teaching in the description to be applicable to all the copolymer emulsions of the examples.

The situation in the case in hand is different from that considered in T 332/87. In this case, the appellant is creating a new embodiment by replacing the pigment of ink-8 to ink-11 in the examples of D6 with a pigment disclosed in the description, as submitted by the respondent. The appellant is not combining teaching of an example with that of the description, but replacing part of the teaching of the example - black pigment PB7 and blue pigment PB15:4 - with that of the description (by way of reference to D3), C.I. Pigment Yellow 155. There is no disclosure and no reason in D6 to replace the pigment of the ink composition of example ink-8 to ink-11 with the specific pigment C.I. Pigment Yellow 155.

Furthermore, according to decision G 2/88 (OJ EPO 1990, 93, Reasons 10) *"a line must be drawn between what is in fact made available, and what remains hidden or otherwise has not been made available. In this connection the distinction should also be emphasised between lack of novelty and lack of inventive step: information equivalent to a claimed invention may be "made available" (lack of novelty), or may not have been made available but obvious (novel, but lack of inventive step), or not made available and not obvious (novel and inventive)".*

The board is of the view that replacing the pigment in ink-8 to ink-11 with C.I. Pigment Yellow 155 has not been disclosed in D6, as set out above.

- 2.3.3 Even if the replacement of the pigment in ink-8 to ink-11 as argued by the appellant were accepted, the disclosure in D6, considering *inter alia* ink-8 to ink-11, would not be prejudicial to the novelty of the subject-matter of claim 3 for the following reasons.

Taking the most general disclosure of D6, which is claim 1, the amount A of VEEA is defined as follows (D representing the outer nozzle diameter):

$$100 \text{ wt\%} - D \times 3.0 \text{ wt\%}/\mu\text{m} \leq A \leq 100 \text{ wt\%} - D \times 1.0 \text{ wt\%}/\mu\text{m}$$

Formula (I).

Using this formula referred to in claim 1 of D6, an outer nozzle diameter "D" of 25 μm , which is the upper limit of the nozzle diameter as required by claim 1 gives the following inequation:

$$100 - 25 \times 3 \leq A \leq 100 - 25, \text{ i.e. a VEEA content of } 25 \text{ wt.\%} \leq A \leq 75 \text{ wt.\%}.$$

For nozzle diameters "D" smaller than 25 μm as covered by claim 1 of D6, the lower limit and upper limit of the amount A of VEEA will shift to higher values.

Thus, to arrive at an amount of 10 to 65 wt.% as required by claim 3 of the main request, a first selection of the amount of VEEA in claim 1 of D6 (25 wt.% to 75 wt.% or higher) is needed.

If it were assumed, in the appellant's favour, that replacing the pigment of ink-8 to ink-11 with C.I. Pigment Yellow 155 was just a selection rather than the

creation of new disclosure, this would represent a second selection.

There is no pointer in D6 to select a VEEA amount or a C.I. Pigment Yellow 155 as claimed, let alone to combine these two features with the features of the selected embodiments represented by ink-8 to ink-11.

Therefore, the appellant's argument is not convincing. The subject-matter of claims 1 to 3 of the main request is thus novel in view of ink-8 to ink-11.

2.4 Ink-12 of D6

The appellant had submitted that ink-12 of D6 anticipated the subject-matter of claims 1 to 3.

Ink-12 (Table 10 of D6) comprises *inter alia* a cyan pigment PB15:4 (paragraph [0118] of D6), 51.54 wt.% VEEA, IrgacureTM 379, IrgacureTM 819 and IrgacureTM 907 (photoinitiators; paragraphs [0130] to [0132]) and 10.00 wt.% SR395 (isodecyl acrylate; paragraph [0126]).

In the same way as for ink-8 to ink-11, said composition does not comprise C.I. Pigment Yellow 155 as required by claims 1 to 3 of the main request.

The same reasoning as that given for ink-8 to ink-11 regarding the disclosure of C.I. Pigment Yellow 155 in combination with the components of any of ink-8 to ink-11 or the multiple selection (2.3, *supra*) applies *mutatis mutandis* to the disclosure of ink-12 of D6.

The subject-matter of claims 1 to 3 of the main request is novel in view of ink-12.

2.5 Novelty in view of the "general" disclosure of D6

The appellant had asserted that claims 1, 3 and 6 and paragraphs [0044], [0070] and [0078] of D6 anticipated the subject-matter of claims 1 and 3 of the main request.

As submitted by the respondent and set out in the communication under Article 15(1) RPBA 2020, the general disclosure of D6, however, does not directly and unambiguously disclose the subject-matter of claims 1 and 3 of the main request since it is necessary to make a first selection of the amount of the vinyl-ether-containing (meth)acrylate in claim 1 of D6 (to arrive at an amount of 10 to 65 wt.% as required by claim 1 of the main request) and a second selection of C.I. Pigment Yellow 155 from among the list of pigments in paragraph [0130] of D3 (cited in paragraph [0070] of D6).

Consequently, the combination of claims 1, 3 and 6 and paragraphs [0044], [0070] and [0078] of D6 does not anticipate the subject-matter of claims 1 and 3 of the main request.

3. Novelty in view of D2, D4, D8, D9, D11 and D12

3.1 The appellant submitted the following novelty objections:

- The subject-matter of claims 1 to 3 lacked novelty in view of example INV-34 of D2.
- The subject-matter of claims 1 to 3 lacked novelty in view of examples INV-2, INV-11, INV-20 and INV-35 of D4.
- The subject-matter of claim 3 lacked novelty in view of all the inventive examples of D8.

- The subject-matter of claims 1 to 3 lacked novelty in view of examples 1 to 8 and 10 to 12 of D9.
- The subject-matter of claims 1 to 3 lacked novelty in view of example 4A of D11.
- The subject-matter of claim 1 lacked novelty in view of example 102 of Figure 9 of D12.

However, as submitted by the respondent and set out in the communication under Article 15(1) RPBA 2020, the documents do not disclose creating a new embodiment by replacing the pigment of the above examples with C.I. Pigment Yellow 155, a pigment disclosed in their descriptions.

- 3.2 The appellant also submitted novelty objections against the subject-matter of claims 2 and 3 in view of the general disclosure of D2 (claims 1, 2 and 5; paragraphs [0089] and [0097]) and against the subject-matter of claims 1 to 3 of the main request in view of the general disclosure of D4 (claims 1 and 2; paragraphs [0088] and [0096]).

As submitted by the respondent and set out in the communication under Article 15(1) RPBA 2020, the general disclosures of D2 and D4, however do not directly and unambiguously disclose the subject-matter of claims 1 to 3 of the main request since more than one selection is required in D2 or D4 to arrive at the claimed subject-matter and there is no pointer to combine the selections.

- 3.3 The board thus concludes that the subject-matter of claims 1 to 3 of the main request is novel in view of the disclosure of any of D2, D4, D8, D9, D11 and D12.

The same applies to all the remaining claims, which directly or indirectly depend on claims 1 to 3.

4. Inventive step

4.1 In its statement of grounds of appeal, the appellant had submitted the following objections:

- (i) The subject-matter of claims 1 to 3 of the main request lacked inventive step in view of D6 as the closest prior art in combination with A014.
- (ii) The subject-matter of claim 2 of the main request lacked inventive step in view of D10 as the closest prior art alone.
- (iii) The subject-matter of claim 2 of the main request lacked inventive step in view of D10 as the closest prior art in combination with D7.
- (iv) The subject-matter of claim 3 of the main request lacked inventive step in view of A013 as the closest prior art in combination with D6 or D8.

During the oral proceedings, the appellant asserted that:

- (v) The subject-matter of claim 3 lacked inventive step in view of D6 alone.

5. Admittance of A013 and A014

5.1 A013, a document relating to pigment dispersions and pigmented inkjet inks comprising said dispersions, was submitted with the statement of grounds of appeal. The ink compositions (combination of claims 8 and 13 of

A013) comprise C.I. Pigment Yellow 155 - the pigment required by claims 1 to 3 of the main request. The appellant relied on this document as the closest prior art in one of the inventive-step objections against the claimed subject-matter (objection (iv) as set out above).

A014 is an extract from a handbook on industrial organic pigments, in particular on C.I. Pigment Yellow 155 (pages 264 to 265). The appellant relied on A014 to establish the obviousness of the solution to the objective technical problem formulated starting from D6 as the closest prior art (objection (i) as set out above).

- 5.2 The respondent requested that A013 and A014 not be admitted into the proceedings, arguing that the documents could have been filed during the proceedings before the opposition division.
- 5.3 The appellant submitted that A013 was filed in response to the opposition division's decision regarding the combination of a particular example with teaching from the description. It also submitted that A013 was *prima facie* relevant. Regarding A014, the appellant only submitted that it represented common general knowledge.
- 5.4 As set out above, A013 was submitted with the statement of grounds of appeal. Whether or not A013 and the submissions based on it are to be taken into account in the appeal proceedings is thus governed by Article 12(4) RPBA 2007, applicable to this appeal case pursuant to Article 25(2) RPBA 2020 (the statement of grounds of appeal having been filed before 1 January 2020).

Under Article 12(4) RPBA 2007, the board has the power

to hold inadmissible *inter alia* facts and evidence which could have been presented in the proceedings before the opposition division, even though they were filed with the statement of grounds of appeal, relate to the case under appeal and meet the requirements under Article 12(2) RPBA 2007.

Contrary to the appellant's submissions, filing A013 and the related inventive-step objections cannot be seen as a legitimate reaction to the opposition division's decision regarding the combination of a particular example with teaching from the description. In the impugned decision (last paragraph on page 7), the opposition division held that a pigment of a specific ink composition of an example could not be replaced with a pigment disclosed in the description. The fact that subject-matter is not disclosed in a combination of passages in a prior-art document cannot be regarded as a legitimate reason to file a further document(s) along with entirely new objections based on that/those further document(s). Furthermore, the set of claims of the main request had been filed together with the respondent's reply to the notice of opposition, i.e. at an early stage of the opposition proceedings. The board sees no reason, nor was anything submitted in this regard, why A013 and the submissions based on it could not have been filed in response. Thus, A013 not only could but should have been filed during the opposition proceedings.

Furthermore, taking A013 and the new objection based on it into account in the appeal proceedings would mean that the board has to deal with an entirely new objection for the first time on appeal. It is, however, established case law, and has been explicitly confirmed in Article 12(2) RPBA 2020, that the primary object of the appeal proceedings is to review the decision under

appeal in a judicial manner. The purpose of the appeal proceedings is not to give the party adversely affected by the decision under appeal a second opportunity to put forward a new case.

For these reasons, the board decided not to admit A013 and the related inventive-step objection (iv), as identified above, into the appeal proceedings pursuant to Article 12(4) RPBA 2007.

5.5 A014 was likewise submitted with the statement of grounds of appeal and its consideration in the appeal proceedings is governed by Article 12(4) RPBA 2007.

The appellant submitted that A014 represented common general knowledge and thus should be admitted.

The board acknowledges that submissions as evidence of alleged common general knowledge, where such knowledge has been disputed, may be admitted in appeal proceedings (see e.g. T 1076/00, Reasons 1).

However, in the case in hand, the board sees no reasons, nor did the appellant provide any, why A014 represents evidence of alleged common general knowledge where that knowledge had been disputed during the opposition proceedings. A014 is merely a document on which the appellant relied for obviousness in its objection based on D6 as the closest prior art. This represents a new allegation of fact and it not only could but should have been submitted during the opposition proceedings, especially since the claims of the main request had been on file since the reply to the notice of opposition.

As set out in the context of A013, taking A014 into account in the appeal proceedings would mean addressing new issues for the first time on appeal and giving the

appellant a second go, contrary to Article 12(2) RPBA 2020.

For these reasons, the board decided not to admit A014 and the submissions related to inventive-step objection (i), as identified above, into the appeal proceedings pursuant to Article 12(4) RPBA 2007.

6. Admittance of the allegation of fact based on D7

6.1 The appellant submitted that the subject-matter of at least claim 2 of the main request lacked inventive step in view of D10 as the closest prior art in combination with D7 (objection (iii) identified above). The subject-matter of claim 2 of the main request was obvious since the skilled person starting from embodiment 4 of table 4 of D10 would have replaced some of the VEEA with isobornyl acrylate, as taught by claim 1 of D7.

Objection (iii) was not submitted during the proceedings before the opposition division, the only documents relied on by the appellant for obviousness being D6, D8 or D10 (see point 2.5.1 of the opposition division's decision).

The appellant's submissions based on D7 thus entail a new allegation of fact submitted for the first time with the statement of grounds of appeal. Their admittance is governed by Article 12(4) RPBA 2007.

The board sees no reasons, nor did the appellant provide any, why the new inventive-step objection involving the new allegation of fact based on D7 should represent a reaction to the opposition division's decision and why the allegation of fact was not submitted during the proceedings before the opposition division, especially since the claims of the main

request had been on file since the reply to the notice of opposition. For this reason, the board considers that the new allegation of fact based on D7 not only could but should have been filed during the opposition proceedings.

Furthermore, the purpose of appeal proceedings is to review the correctness of the decision under appeal, not to start a second opposition proceedings (Article 12(2) RPBA 2020). Taking this new allegation of fact into account in the appeal proceedings would, however, mean exactly that, i.e. giving the appellant (the party adversely affected by the decision under appeal) a second go.

For these reasons, the board decided not to take the new allegation of fact based on D7 into account in the appeal proceedings pursuant to Article 12(4) RPBA 2007.

7. Admittance of the inventive-step objection based on D6 alone

The appellant raised this objection during the oral proceedings (objection (v) above) and the board decided to admit it. Since the board concluded, in the respondent's favour, that the subject-matter of claim 3 involved an inventive step in view of D6 as the closest prior art (point 10, *infra*), there is no need to give any reasons for admitting the objection.

8. In view of the above, only two inventive-step objections had to be assessed as to their merits in the appeal proceedings, namely:
 - the objection against the subject-matter of claim 2 based on D10 as the closest prior art alone and

- the objection against the subject-matter of claim 3 based on D6 as the closest prior art alone.

9. Inventive step in view of D10 as the closest prior art

9.1 Claim 2 of the main request is a light-curable ink composition for ink jet recording comprising:

(a) 0.1 to 6% by mass C.I. Pigment Yellow 155,

(b) a photopolymerisation initiator, and

(c) 10 to 30% by mass of a vinyl-ether-containing (meth)acrylate represented by general formula (I), as defined in the claim.

The light-curable ink composition for ink jet recording of the invention (see paragraphs [0001] and [0010] of the patent) is safe and has excellent curability, storage stability and weather resistance.

9.2 D10 is concerned with providing photocurable inkjet ink compositions having excellent storage stability and curing properties (paragraph [0018] of D10).

D10 thus relates to the same technical field and has the same objectives as the opposed patent (paragraph [0010] of the opposed patent). It can thus be considered to represent the closest prior art.

9.3 The appellant relied on embodiment 4 in table 3 of D10 as a starting point for the objection of lack of inventive step.

The composition of embodiment 4 is disclosed in table 3 of D10.

Embodiment 4 in table 3 of D10 relates to an ink composition comprising 74.8 wt.% VA, "Irgacure 819" and "Irgacure 127" and 6 wt.% C.I. Pigment Yellow 155.

VA is VEEA (paragraph [0093] of D10) and is thus a compound of formula (I) as required by claim 2 of the main request.

"Irgacure 819" and "Irgacure 127" (paragraph [0096]) are two photopolymerisation initiators, as required by claim 2 of the main request.

The amount of C.I. Pigment Yellow 155 (6 wt.%) falls within the range required by claim 2 of the main request (0.1 to 6% by mass).

9.4 Distinguishing feature

It was common ground between the parties that the amount of the compound of formula (I) (10 to 30% by mass) represented the distinguishing feature of claim 2 of the main request in view of embodiment 4 of D10 (having a content of VEEA, i.e. a compound of formula (I), of 74.8 wt.%).

9.5 Objective technical problem

Examples 1 to 3 and 6 to 14 in table 1 of the patent, having a VEEA content of 10, 20 or 30 wt.%, are in accordance with claim 2 of the main request. Comparative example 3 in table 2 of the patent having a VEEA content of 70 wt.% is representative of the teaching of D10.

Table 3 of the patent shows that examples 1 to 3 and 6 to 14 have a storage stability "A", "B" or "C", while comparative example 3 has a storage stability "D". A storage stability of "A" represents the best storage stability (see paragraphs [0116] to [0118] of the patent) while "D" represents the worst. Thus, the compositions of examples 1 to 3 and 6 to 14 (according to claim 2 of the main request) have improved storage

stability in comparison with comparative example 3 (representing D10).

Thus, as acknowledged by the appellant, the objective technical problem is providing a yellow ink having further improved storage stability.

9.6 Obviousness

The appellant submitted that D10 (paragraph [0054]) taught that the VEEA content was preferably 20 to 90 wt.% and more preferably 30 to 80 wt.%. Investigating the influence of the amount of VEEA on storage stability over the whole range disclosed in D10 was routine experimentation. It was obvious to the skilled person to compose an inkjet ink having a content of e.g. 30 wt.% as required by claim 2 of the main request.

The board does not agree. Paragraph [0054] of D10 refers to a content of 20 to 90 wt.% and more preferably 30 to 80 wt.% in the ink composition. However, this paragraph does not make any reference to a storage stability. As submitted by the respondent, D10 does not teach reducing the VEEA content to the range of 10 to 30% by mass to improve the stability of the ink composition. The appellant's approach is based on an *ex post facto* analysis. As per the case law of the boards of appeal, when assessing inventive step, an interpretation of the prior-art documents as influenced by the problem solved by the claimed invention, where the problem was neither mentioned or even suggested in those documents, must be avoided, any such approach being merely the result of an *a posteriori* analysis (see e.g. T 266/07, Reasons 6.4).

The board thus does not see any teaching in the passages referred to by the appellant that would have led the skilled person to a composition according to claim 2 of the main request when faced with the objective technical problem. Therefore, the subject-matter of claim 2 of the main request involves an inventive step in view of D10 as the closest prior art.

10. Inventive step in view of D6 as the closest prior art

10.1 As set out above, claim 3 of the main request is a light-curable ink composition for ink jet recording comprising:

- (a) 0.1 to 3% by mass C.I. Pigment Yellow 155,
- (b) a photopolymerisation initiator, and
- (c) 10 to 65% by mass of a vinyl-ether-containing (meth)acrylate represented by general formula (I), as defined in the claim.

10.2 The appellant relied on ink-8 to ink-11 in table 6 of D6.

As set out above, the composition of ink-8 to ink-11 comprises 35, 50, 55 or 58.85 wt.% VEEA, GenoradTM 16 (a polymerisation initiator; paragraph [0136]) and 3 wt.% of a pigment mixture (blue pigment PB15:4 and black pigment PB7; paragraphs [0118] and [0119]).

10.3 Distinguishing feature

As set out above, the distinguishing feature of claim 3 of the main request in view of ink-8 to ink-11 is at least the presence of C.I. Pigment Yellow 155.

10.4 Objective technical problem

The appellant submitted that the technical effect achieved by the distinguishing feature was merely obtaining an ink having a different colour, meaning that the objective technical problem was merely providing an alternative ink.

The board does not agree for the following reasons.

First, comparative examples 3 and 4 (table 2 of the patent) are two yellow ink compositions comprising 70 wt.% VEEA and a yellow pigment. Comparative example 3 comprises 3% by mass C.I. Pigment Yellow 155 (i.e. the yellow pigment required by claim 3 of the main request), while comparative example 4 comprises 3% by mass C.I. Pigment Yellow 180 (i.e. a comparative yellow pigment).

Table 3 of the patent shows that comparative example 3 has a weather resistance of "A" while comparative example 4 has a weather resistance of "C". A weather resistance of "A" means an improvement of this property in comparison with a value of "C" (paragraphs [0127] to [0129] of the patent). Thus, the weather resistance of the ink composition of comparative example 3 (comprising C.I. Pigment Yellow 155, the pigment required by claim 3 of the main request) is improved in comparison with that of comparative example 4 (comprising a different yellow pigment).

In view of the above and as submitted by the respondent, the objective technical problem is providing a yellow ink having improved weather resistance.

10.5 Non-obviousness

D6 does not provide any teaching on how to solve the above technical problem, let alone on selecting C.I. Pigment Yellow 155 to achieve the desired weather resistance. Thus, the subject-matter of claim 3 of the main request involves an inventive step in view of D6 as the closest prior art.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



N. Maslin

M. O. Müller

Decision electronically authenticated