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**Datasheet for the decision  
of 6 October 2020**

**Case Number:** T 2049/16 - 3.2.05

**Application Number:** 07831864.9

**Publication Number:** 2157458

**IPC:** B42D25/29, B42D25/328,  
G09F3/02, B41M3/14, G02B5/18,  
G02B27/42, G09F3/03

**Language of the proceedings:** EN

**Title of invention:**  
Display and Information-Printed Matter

**Patent Proprietor:**  
Toppan Printing Co., Ltd.

**Opponent:**  
Leonhard Kurz Stiftung & Co. KG

**Relevant legal provisions:**  
EPC Art. 54(1), 123(2)  
RPBA Art. 12(4)

**Keyword:**  
Inadmissible extension (yes: main request)  
Exclusion of document D20 (no)  
Novelty (no: auxiliary request 1)  
Admissibility of auxiliary requests 2 to 16 (no)

**Decisions cited:**

G 0009/91, G 0007/93, R 0006/17, T 0617/16

**Catchword:**

Possibility for a board of appeal to exclude a document admitted by the opposition division because of its prima facie relevance (see point 3 of the reasons).



**Beschwerdekammern**

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Case Number: T 2049/16 - 3.2.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.05**  
**of 6 October 2020**

**Appellant:** Toppan Printing Co., Ltd.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
4 July 2016 concerning maintenance of the  
European Patent No. 2157458 in amended form.**

**Composition of the Board:**

**Chairman** P. Lanz  
**Members:** O. Randl  
C. Brandt

## **Summary of Facts and Submissions**

- I. The patent proprietor appealed against the opposition division's decision to maintain European patent No. 2 157 458 ("the patent") in amended form.
- II. In the decision under appeal, the opposition division concluded that the claims of the main request (patent as granted) and of auxiliary requests 1 to 4, 6 and 7 contained added matter and that the subject-matter of auxiliary requests 5 and 8 was not new over the prior art. Auxiliary requests 9 and 10 were not admitted. Auxiliary request 11 was found to comply with the requirements of the EPC.
- III. Among the documents considered by the opposition division, documents D3 (WO 2005/106601 A2) and D20 (WO 2005/100096) are particularly relevant to the appeal proceedings.
- IV. The oral proceedings before the board took place on 6 October 2020.
- V. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained in amended form according to the main request filed on 20 March 2015 or auxiliary request 1, filed as new auxiliary request 5 on 7 June 2016, or one of auxiliary requests 2 to 16 filed together with the statement of grounds of appeal dated 14 November 2016.  
  
The respondent (opponent) requested that the appeal be dismissed.

VI. At the end of the oral proceedings before the board, the appellant raised an objection under Rule 106 EPC. The objection was formulated as follows:

"Pursuant to Rule 106 EPC we herewith raise an objection against not taking any of Auxiliary Requests 2-16 filed with the statement of grounds of appeal into consideration. This is considered by us to amount to a fundamental violation of Article 113 EPC according to Article 112a(2)(c) EPC."

VII. Claim 1 of the main request reads (the feature references used by the board are given in square brackets):

"[1] A display characterized by comprising:  
[2] a substrate (5) with a light-transmitting property;  
[3] a relief structure-forming layer (2) disposed on at least one surface of the substrate (5) and including a relief-structured region (6) on a surface thereof opposite to its surface in contact with the substrate (5);  
[4] a light-reflecting layer (3) disposed on the surface of the relief structure-forming layer (2) including the relief-structured region (6); and  
[5] a printed layer (4) [6] formed on a surface of the substrate (5) opposite to the surface on which the relief structure-forming layer (2) is disposed, wherein [7] the relief-structured region (6) is constituted by recessed or protruding portions (8) arranged two-dimensionally, [8] has low reflectivity and low diffusibility under a normal illumination condition, and [9] exhibits a diffracted light emitting property under a specific condition,

characterized in that

[10] at least a part of the printed layer (4) is formed from an ink or toner."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the words "at least part of" and "or toner" have been deleted.

Claim 1 of auxiliary request 2 differs from claim 1 of auxiliary request 1 in that the words "which is a film or sheet made of a resin having a light-transmitting property" have been inserted after the words "light-transmitting property".

Claim 1 of auxiliary request 3 differs from claim 1 of auxiliary request 2 by the additional feature "wherein the relief-structured region (6) and the region in which the printed layer is formed both display images which an observer perceives".

Claim 1 of auxiliary request 4 differs from claim 1 of auxiliary request 3 by the additional feature "and wherein diffracted light is perceived by inclining the display".

Claim 1 of auxiliary request 5 differs from claim 1 of auxiliary request 1 in that "A display" has been replaced by "An information-printed matter characterized by comprising a display, and a printed matter substrate (50) supporting it, wherein the display is" and by the additional feature "wherein the printed matter substrate (50) is paper".

Claim 1 of auxiliary request 6 differs from claim 1 of auxiliary request 5 by the insertion of the words "to an observer" after the word "exhibits".

Claim 1 of auxiliary request 7 differs from claim 1 of auxiliary request 6 by the insertion of the feature "which is a film or sheet made of a resin having a light-transmitting property" after the words "light-transmitting property" and by the additional feature "wherein the relief-structured region (6) and the region in which the printed layer is formed both display images which an observer perceives and wherein diffracted light is perceived by inclining the display".

Claim 1 of auxiliary request 8 differs from claim 1 of auxiliary request 7 by the additional feature "and wherein the information-printed matter further comprises a second printed layer (30)".

Claim 1 of auxiliary request 9 differs from claim 1 of auxiliary request 8 in that the words "film or" have been deleted.

Claim 1 of auxiliary request 10 differs from claim 1 of auxiliary request 8 by the insertion of the feature "that was subjected to an antireflection treatment, low-reflection treatment, hard-coating treatment, antistatic treatment or soil-resistant treatment" after the second occurrence of the words "light-transmitting property".

Claim 1 of auxiliary request 11 differs from claim 1 of auxiliary request 8 by the insertion of the feature "that was subjected to a hard-coating treatment" after the second occurrence of the words "light-transmitting property".

Claim 1 of auxiliary request 12 differs from claim 1 of auxiliary request 5 by the insertion of the feature "which is a film or sheet made of a resin having a light-transmitting property, and has a monolayer structure" after the words "light-transmitting property".

Claim 1 of auxiliary request 13 differs from claim 1 of auxiliary request 12 by the insertion of the feature "that was subjected to a hard-coating treatment" after the second occurrence of the words "light-transmitting property".

Claim 1 of auxiliary request 14 differs from claim 1 of auxiliary request 11 by the insertion of the feature ", and has a monolayer structure" after the words "hard-coating treatment".

Claim 1 of auxiliary request 15 differs from claim 1 of auxiliary request 1 essentially in that:

- the words "A display characterized by comprising" have been replaced by "A use of an information-printed matter comprising a display, and a printed matter substrate (50) supporting it, the printed matter substrate (50) being paper, wherein the display comprises";
- the word "exhibits" has been replaced by "is used to exhibit"

Claim 1 of auxiliary request 16 differs from claim 1 of auxiliary request 15 by the insertion of the words "to an observer" after the word "exhibit".



VIII. The parties' relevant submissions may be summarised as follows:

(a) Main request: added matter

(i) Appellant (patent proprietor)

The opposition division's assessment ignores the context and disclosure of the original application as a whole. In paragraph [0018], the application directly and unambiguously discloses that the printed layer is formed from an ink or a toner. It describes the use of ink or toner in general, without any specific restriction to the properties of the ink or toner used. The passage indicates using an ink or toner in the printing process but does not simultaneously limit the description to the extent that the entire printed layer is formed in one and the same way. As such, what is described is a printed layer that may comprise an ink or toner but does not have to consist entirely of an ink or toner. Thus, the passage in fact directly supports the claim wording that "at least a part of the printed layer is formed from an ink or toner".

Furthermore, the original application explicitly states that the printed layer may be heterogeneous in the sense that "at least a part" of the printed layer has a given characteristic. Original claims 2, 3 and 4 each describe different partial characteristics of this kind, each introduced with the wording "at least a part of the printed layer is formed from ...". This is further support for the notion that the formation of the printed layer as described in paragraph [0018] is not limited to the whole printed layer having the characteristic of being formed from an ink or toner; on the contrary, the possibility of only part of the

printed layer being structured in the described way must also be taken to be disclosed.

Claim 1 is clearly based on original claim 1; it has been limited to one of the three alternatives mentioned in that claim. Original claim 2 depends on claim 1, and therefore its feature is directly and unambiguously disclosed in combination with the other features of claim 1. Feature 10 corresponds exactly to the feature of original claim 2, with the exception that the reference to ink of low reflectivity and low diffusibility has been omitted. The question is whether this intermediate generalisation is allowable. The jurisprudence condones such generalisations when (i) the feature is not related or inextricably linked to the other features of the embodiment, and (ii) the overall disclosure justifies the generalisation and the introduction of the feature into the claim. In this case, the feature "at least a part of the printed layer" is not inextricably linked to the feature that the ink or toner has "low reflectivity and low diffusibility for a predetermined incident light". There is no technical reason why the ink to be used must have such reflectivity and diffusibility. It was clear for the skilled person that the first feature could be implemented irrespective of the colour of the ink or toner. The first part of the feature clearly works for ink of any colour. Moreover, the overall disclosure of the application justifies the extraction of the feature: according to page 16, lines 3 to 6 of the original application, the ink exhibiting low reflectivity and low diffusibility for a predetermined illumination light is used "preferably". Thus, the low reflectivity and diffusibility are just preferred features that lead to particularly strong contrast - they are not essential. Ink and toners of any colour

can be used, as is also disclosed in the paragraph bridging pages 6 and 7 of the original application. As a consequence, the conditions for allowing an intermediate generalisation are fulfilled. The situation is similar to the one on which decision T 300/06, cited in the Guidelines, was based.

(ii) Respondent (opponent)

The subject-matter of the patent extends beyond the content of the application as filed.

Feature 10, which was added to claim 1 of the main request during the examination proceedings, is not supported by the application documents as originally filed. The feature is not supported by paragraph [0018] of the application as published since it states that an "ink" or "toner" is used. The meaning of the term "at least a part of the printed layer" also covers the variant in which the printed layer consists partly of an "ink or toner" and partly of other substances. However, paragraph [0018] does not disclose that the printed layer consists partly of an ink or a toner and partly of another material. On the contrary, paragraph [0018] clearly states that the printed layer 4 is printed using an ink that is selected depending on the printing process used. The wording "can be used" refers to the type of ink (offset ink, letterpress ink, gravure ink), which is chosen depending on the type of printing process (offset, letterpress, gravure). Paragraph [0018] merely discloses that the "printed layer" consists of an "offset ink", a "letterpress ink" or a "gravure ink", and simply states that a "printed layer" is formed by means of a "toner", without any specific reference to the printed layer 4. Paragraph [0018] refers to the specific embodiment according to

Fig. 2, which, in addition to the features of claim 1, includes a large number of other obviously relevant features. For example, the printing layer as shown in Fig. 2 and described in paragraph [0018] is not fully formed here and, furthermore, is not positioned in the area of the relief structure 6 ("The printed layer 4 displays an image such as pattern, character or symbol"). Including feature 10 on the basis of paragraph [0018] also constitutes an inadmissible intermediate generalisation.

In so far as the patentee justifies including feature 10 on the basis of original claim 2, it must be objected that this version does not include functionally essential features of original claim 2, namely "low reflectivity and low diffusibility for the predetermined incident light". Thus, the amendment leads to an inadmissible intermediate generalisation. The argument that this feature is included on the basis of original claims 3 and 4 fails for the same reason.

The two features of original claim 2 are inextricably linked and must not be artificially separated. The feature of low reflectivity and low diffusibility is presented as an essential feature in the original application as a whole. The paragraph on page 16, lines 3 to 19 discloses that a technical effect (to make it difficult to discern the difference of constructions) is obtained. Thus, the feature cannot be omitted.

(b) Admissibility of document D20

(i) Appellant (patent proprietor)

Before the opposition division the patent proprietor

had argued that the filing of document D20 only one month before the oral proceedings constituted an obvious tactical abuse of proceedings and that document D20 was not *prima facie* relevant. The opposition division completely ignored the issue of abuse of proceedings. Had the opposition division acted correctly and taken the question of a tactical abuse of proceedings into account, it would not have admitted document D20 into the proceedings. It is an established principle that "the parties in *inter partes* cases are subject to a particular duty to facilitate due and swift conduct of the proceedings, in particular by submitting all relevant facts, evidence, arguments and requests as early and completely as possible" (see Case Law of the Boards of Appeal of the EPO (hereinafter "Case Law"), 8th edition, 2016, p. 931 of the English version, emphasis added). Opponents have to conduct as thorough as possible a search for prior art within the nine-month opposition period, to allow them to make a complete case when filing the grounds of opposition. The filing of a prior-art document within one month of the oral proceedings is objectively unfair to the patent proprietor, who is forced to fully analyse the document, organise discussions between all the relevant people working for the patent proprietor, and decide on and prepare a response, all within the extremely short period of not even four weeks (given that receipt of the communication from the EPO is often delayed). The fact that the patent proprietor is Japanese greatly compounds this problem as there is an additional delay due to communications between the EP representative and the Japanese law firm acting on the patent proprietor's behalf, who then has to translate all communications. No other procedure at the EPO tolerates such a short time frame for such a momentous and far-reaching decision - they all provide for a period of at least

four months for responding to substantive objections. The unfairness is exacerbated by the inherent asymmetry between the patent proprietor's procedural situation and that of the opponent. While the opponent has the opportunity to attack the patent again in national invalidation proceedings if the opposition is rejected, the patent proprietor has no "second chance" if the patent is restricted or revoked. Moreover, document D20 is a patent application drafted by the opponent, and the professional representative handling document D20 is the same person who represented the opponent in the opposition proceedings. It is more likely than not that the opponent was aware of document D20 when filing the opposition. The opponent offered no explanation for the late filing; most probably the opponent deliberately held back the filing of document D20. At the very least it acted negligently in not filing D20 earlier, in breach of its duty to submit all relevant evidence as early and completely as possible. Thus, the opposition division should have refused to admit document D20 into the proceedings. In admitting document D20 into the proceedings, the opposition division violated the principle of fairness by not postponing the oral proceedings. Lastly, the opposition division did not correctly assess the relevance of document D20, as a *prima facie* examination leads to the conclusion that D20 does not pass the *prima facie* relevance test. It is *prima facie* clear that document D20 does not describe a structure comparable with the claimed structure and is objectively irrelevant for assessing patentability. Considering that the layer 20 is not a substrate, features 3 and 5+6 are not disclosed in document D20. Feature 9 of claim 1 requires the relief-structured region to exhibit a diffracted light emitting property under a specific condition. There is no description

whatsoever of such a phenomenon in document D20. Thus, the decision to admit the document was incorrect.

In response to the board's preliminary opinion that there was no legal basis for excluding document D20 from the proceedings, the appellant noted that they were not aware of any such legal basis either and that they were ready to deal with the document. However, the issue should be taken into account if the admissibility of auxiliary requests 2 to 16 were to be decided upon.

(ii) Respondent (opponent)

Document D20 was introduced into the proceedings in a letter dated 6 May 2016, which also explained in detail why this document was *prima facie* relevant to the subject-matter of the main request. The letter also gave the reasons for the subsequent search (subsequent search based on the amendment to the request in the opposition proceedings and the statements in the opposition division's preliminary opinion), along with detailed reasons for the objections under Article 54 EPC. Furthermore, this allowed the patentee to understand the additional lines of attack without much effort weeks before the oral proceedings, so the accusation of abuse of proceedings is unjustified. The reasons for admitting document D20 into the proceedings were also explained in the decision under appeal.

(c) Auxiliary request 1: Novelty over document D20

(i) Appellant (patent proprietor)

The display according to the invention in this case, as claimed in the main request and auxiliary request 1, differs from document D20 on account of features 3, 5+6

and 9. The layer 20 does not form a substrate, but even if it did, document D20 still does not disclose features 9 and 5+6.

There is no explicit disclosure of feature 9 in Fig. 2c and the corresponding text on page 16, in claim 1, or in the remainder of the document. The opposition division considered (see decision under appeal, page 17, third paragraph) feature 9 to be an inherent feature of the relief-structured regions in the second partial surfaces 37 in document D20 (see page 16, lines 3 to 6). For the feature to be implicitly disclosed, the skilled person must objectively consider it to be inevitably implied in the explicit content, i.e. in this case the geometry of the two-dimensional grating, in particular the period and height. This is not the case. Referring to the middle paragraph of page 16, the opposition division considered the values of  $\lambda = 318 \text{ nm}$  and  $\lambda = 420 \text{ nm}$  to be disclosed. Presumably, it was referring to the passage on page 16, lines 8 to 12. This passage can also be construed as referring to periods below the limit wavelength. In this case, the value of  $A = 318 \text{ nm}$  is not expressly disclosed, and moreover the period is below  $200 \text{ nm}$ , i.e. below the range of periods which, in the opposition division's view (see page 13, bottom paragraph of the decision under appeal), would result in the diffraction of visible light. In addition, document D20 broadly defines the profile depth to lie in the range of  $50 \text{ nm}$  to  $500 \text{ nm}$  (page 16, line 13 and claim 16). When the height of the recessed or protruding portions is less than  $200 \text{ nm}$ , it is impossible to impart sufficient low reflectivity and low diffusibility (see paragraph [0069] of the patent). Therefore, the periods and heights of the cross-gratings mentioned in document D20 will not always and



inevitably implement features 8 and 9 in combination, which would be required to constitute an implicit anticipation. Document D20 describes preferred relief structures by reference to Fig. 2a. According to page 17, lines 5 to 6, the second partial surfaces 37 absorb the incoming light and therefore appear dark. This is further confirmed by page 16, lines 3 to 6 in conjunction with Fig. 2c, as cited in the decision under appeal. When explaining the relief structures shown in Fig. 2c, it is stated (page 16, lines 14 and 15) that they absorb almost all the visible light falling on the second partial surfaces 37. Document D20 achieves a contrast between the second partial surfaces 37 and the first partial surfaces 38, the latter being formed as flat mirror surfaces (page 16, lines 2 and 3 and page 17, lines 1 and 2) under specular reflection conditions. In all other directions, there is no contrast (see page 17, first paragraph). The relief structures as illustrated in Fig. 2c are intended to absorb as much incoming light as possible, irrespective of the viewing angle, so feature 9 cannot be regarded as being implicitly disclosed.

Features 5+6 are not disclosed in document D20 either. Contrary to what is suggested by the board's feature analysis, these two features belong together and should not be separated. In document D20, the decoration layer 18 is formed on the transparent peel-off layer 16, on the opposite surface of which is the separation layer 34 rather than a relief-structure forming layer as required in feature 6. This is the result of the way in which the stamping film shown in Fig. 1 is built. The layer structure is built starting from the carrier film 12. A separation layer 34 (page 12, lines 6 and 7) and the peel-off layer 16 are then applied (page 12, lines 26 to 28). Next, the decoration layer 18 is

formed on the transparent peel-off layer 16 (page 13, lines 6 to 8). In a further step, the transparent protective layer 20 is formed as described in page 14, lines 4 to 6. Consequently, the decoration layer 18 is not formed on the transparent protective layer 20. On the contrary, the transparent protective layer 20 is formed on the decoration layer 18. The opposition division dismissed this argument for two reasons (decision under appeal, top of page 17): (i) claim 1 is directed to a product and not to a method for manufacturing, and (ii) it is not apparent which distinguishing features would result from the printed layer being formed on the substrate compared with the product disclosed in document D20. However, the feature of the printed layer being formed on a surface of the substrate implies more than just the printed layer and the substrate being in contact. When a printed layer is formed on a substrate, the layer is printed on the substrate using an ink or toner. As a consequence, the printed layer is slightly prominent on the substrate, as shown in Fig. 2 of the patent. The skilled reader would immediately rule out the possibility of the opaque decoration layer being printed (or a printed layer being formed) on the transparent protective layer 20 in the layer structure shown in Fig. 1 of document D20, since this would necessitate forming recesses in that layer and then filling them with ink or toner by way of printing while taking care not to cover the interruptions 36 between the recesses with ink or toner, which is absurd. Any assertion to the contrary is unrealistic in view of the sizes involved (thickness of the decoration layer 18: 1 to 3  $\mu\text{m}$ : page 13, lines 18 to 19; thickness of the protection layer 20: 0.5 to 5  $\mu\text{m}$ : page 14, line 7). It is not clear how the trough-shaped recesses would be prepared. Rather, the layer structure is built from top to bottom, as is

clearly disclosed in document D20 (see pages 12 to 19, in particular page 13, from line 6 onwards, and page 14, lines 4 to 6). It is expedient to consider the three alternatives in claim 1 as granted. The second alternative is drafted such that the surface on which the printed layer is printed does not matter, as long as it is placed between the relief structure-forming layer 2 and the light-reflecting layer 3. However, the situation is different for the first alternative since the printed layer has to be formed (i.e. printed) on the surface of the substrate. It is important to note that the decoration layer 18 of document D20 is a patterned layer with interruptions. There has to be a certain percentage of interruptions (up to 99%: page 13, line 12) for the mark or symbol to be distinguishable. To obtain this configuration, it is important to start from the carrier film. The pigment-containing ink is printed first, and then a transparent liquid composition is applied on top to fill the spaces and cover the surface. If the layer 20 was provided first, it would not be able to fill the spaces.

(ii) Respondent (opponent)

Document D20 discloses all the features of claim 1, namely a display (film 10 shown in Fig. 1; page 11, lines 14 to 21) comprising a substrate (20) with a light-transmitting property (page 11, lines 24 to 25: transparent protective layer 20), a relief structure-forming layer (22), which is disposed on at least one surface of the substrate (20) (Fig. 1; page 14, lines 32 to 34: the optically variable layer 22 consists of a replicating layer in which a surface structure is replicated) and includes a relief-structured region on a surface thereof opposite to its surface in contact with the substrate (20) (see Fig. 1,

page 14, line 30 to page 15, line 4), a light-reflecting layer (24) disposed on the surface of the relief structure-forming layer (22) including the relief-structured region (Fig. 1; page 11, line 25; page 18, lines 19 to 26), a printed layer (18) formed on a surface of the substrate (20) opposite to the surface on which the relief structure-forming layer (22) is disposed (Fig. 1; page 13, lines 6 to 7: the decorative layer 18 is applied by a printing method), wherein the relief-structured region is constituted by recessed or protruding portions arranged two-dimensionally (Fig. 2c), has low reflectivity and low diffusibility under a normal illumination condition, and exhibits a diffracted light emitting property under a specific condition (page 16, lines 8 to 34; claim 9 [sic] of the patent prescribes a period of 400 nm or less), wherein at least a part of the printed layer (18) is formed from an ink or a toner (page 13, line 1 to page 14, line 8, in particular formation in red or black; further on page 13, lines 6 to 8, i.e. application in pattern form by means of a printing process).

Claim 1 is a product claim. Feature 6 specifies the sequence of the layers as present in the end product and not the sequence of any manufacturing steps, which are otherwise not discernible in the end product. Feature 6 does not in any way imply that a layer is printed on another layer; it merely entails a printed layer being formed on a surface of the substrate. Document D20 clearly indicates that the decorative layer (8) is a printed layer (page 13, lines 6 and 7: "applied by a printing process"). Document D20 discloses (Fig. 2c and page 16, lines 8 to 23) relief structures whose structural size corresponds to the

structural sizes disclosed for this purpose in the patent in dispute, including with regard to the period.

The broad interpretation of the term "substrate" in the board's preliminary opinion is correct. According to paragraph [0014] of the patent, all sorts of materials qualify as substrates. There is no valid reason not to consider the layer 36 in document D20 a substrate within the meaning of claim 1, all the more so because the layer 12 is to be discarded. The feature "formed on" has a wide semantic range. Further justification that the board's preliminary interpretation is correct can also be found in claim 1 as granted, where the expression "formed" is used for all three alternatives, including the second one. The expression "on a surface" is to be understood as indicating a direction - that the printed layer is provided above the substrate. Even if "formed on" were to be understood as a product-by-process feature, inspecting the product would not make it possible to determine whether the ink was printed on the layer 16 or the layer 20.

(d) Admissibility of auxiliary requests 2 to 16

(i) Appellant (patent proprietor)

These requests could not have been presented during the first-instance proceedings because there was insufficient time to do so. The circumstances of the case were peculiar and have to be taken into account.

The summons to oral proceedings before the opposition division was issued on 17 November 2015. The opposition division's preliminary opinion was extremely positive for the patent proprietor. It was clear that apart from minor amendments the patent could be maintained on the

basis of the then main request. Despite this clear opinion, the opponent waited five and a half months - until the very last day under Rule 116 EPC - to file document D20.

Document D20 is a patent application filed by the respondent, through the very representative representing the respondent in these appeal proceedings. It is, therefore, likely that the opponent was aware of the document.

When filing document D20, the opponent's representative did not send the document directly to the patent proprietor. It was not received at the office of the patent proprietor's representative until 18 May 2016. As a consequence, the patent proprietor had to translate and analyse the document, inform the different departments involved, including the management and legal representatives, and develop a strategy within less than three weeks, much less than what the EPC grants in all other procedural situations involving time limits. The argument that document D20 is relatively short and could be analysed within three weeks is misleading because this is only part of the work to be done, which also includes developing suitable fallback positions in view of business interests.

Refusing to admit the auxiliary requests would be highly unfair to the patent proprietor, who, unlike the opponent, has no "second chance" in national proceedings. It was the opponent's behaviour in the proceedings, in breach of its duty to conduct them as swiftly and effectively as possible, that caused these problems and made it impossible for the patent proprietor to file appropriate requests based on the

description of the patent. The respondent's assertion that the admittance of document D20 did not alter the course of the proceedings is incorrect because the subject-matter of what is now auxiliary request 1 was found to lack novelty over document D20.

The patent proprietor's decision not to file a request for postponement of the oral proceedings must not be construed as a decision to forgo the filing of auxiliary requests based on the description of the patent. Several factors contributed to this decision. At that time, a delegation of three of the appellant's employees had already arranged a trip to the oral proceedings. The trip had been approved by the upper management and could no longer be cancelled. In addition, the appellant was confident that document D20 had been late-filed, that its late filing was an abuse of proceedings and, therefore, that it would not be admitted. Moreover, the appellant was confident that the document was *prima facie* not highly relevant. In view of the Rules of Procedure of the Boards of Appeal (RPBA) and the case law at that time, the appellant could not have expected that deciding not to file a request for postponement during the opposition proceedings would leave it unable to file further claims amended on the basis of the description of the patent at the appeal stage, even at the earliest possible moment, i.e. together with the statement of grounds of appeal. At that time, the object of appeal proceedings was not solely to review the decision under appeal.

During the oral proceedings, the opposition division refused to accept amendments based on the description of the patent. As a consequence, the patent proprietor had to excessively delimit the scope of the claims to

distinguish it from the disclosure of document D20. The assertion that the patent proprietor was given, and made ample use of, the opportunity to file auxiliary requests is misleading: several requests were dismissed for being based on the description (see page 22, first and penultimate paragraphs, reasons for the decision under appeal).

Document D3 has to be considered as well. In the opposition division's summons, novelty and inventive step over document D3 were acknowledged. It was only at the oral proceedings that the opposition division changed its mind in this respect (see page 13 of the reasons for the decision under appeal). As a consequence, the patent proprietor had no opportunity to take account of this change of mind.

In view of all the above, the board should make use of its discretion under Article 12(4) RPBA and admit these auxiliary requests 2 to 16.

The board's preliminary opinion that the appellant did not provide any justification for the late-filed requests is not correct. The statement of grounds of appeal repeatedly refers to the reasons for the new auxiliary requests (see in particular pages 8, 11 (top and penultimate paragraph), 13, 21 and 22) and makes it clear that they further distinguish the claimed subject-matter from documents D3 and D20. Contrary to the respondent's assertions, this is much more than just a sweeping statement.

There is a procedural asymmetry between the patent proprietor and the opponent with respect to the admittance of late-filed documents. If a late-filed document is admitted, there is no legal basis to



retroactively exclude it from the proceedings. However, if the document is not admitted, the opponent may still convince the board that it should be admitted.

Given the difficult procedural situation for the patent proprietor, if the board were to decide, on the basis of a rather formalistic position, that no auxiliary requests can be admitted, future opponents could rely on that decision and withhold relevant prior art until a late stage of the proceedings.

(ii) Respondent (opponent)

The auxiliary requests should not be admitted into the proceedings.

The late filing of document D20 did not decisively alter the course of the proceedings. The opposition division realised that the claimed subject-matter was not novel over document D3. It is not unheard of for an opposition division to change its preliminary opinion, and in this case the patent proprietor had the opportunity to file auxiliary requests. Its experts were present and could have suggested appropriate amendments. The opposition division might have dismissed requests based on the description, but the requests would at least have been on file. The opposition division asked the patent proprietor whether it had any further requests, but none was forthcoming.

There was no abuse of proceedings on the opponent's part. Having taken note of the opposition division's narrow interpretation of the feature "low reflectivity", the opponent saw the need for an additional search. These searches are carried out not by the respondent or its representative, but by a

specialised firm. It takes some time to obtain the search results, so the opponent was unable to file the document before the time limit under Rule 116(1) EPC. Document D20 is relatively short (20 pages) and it should not have been a major problem to analyse it in three weeks.

The patent proprietor's difficulties are due to its own complacency and its failure to file auxiliary requests in due time. The patent proprietor had the opportunity to file auxiliary requests and made ample use of it. Some of the requests filed by the patent proprietor were based on the description.

The auxiliary requests were insufficiently substantiated. The substantiation has to make it possible for the opponent and the board to understand how the amendments overcome the objections, all the more so when features are taken from the description since this may trigger further prior-art searches.

If the auxiliary requests were admitted, the case would have to be remitted to the department of first instance.

## **Reasons for the Decision**

1. Interpretation of the claims

1.1 "Substrate"

The Oxford English Dictionary (OED) defines a substrate as "a thing which underlies or forms the basis of another" or, in the context of materials science, as

"any bulk phase or material to which a film, coating, etc. is applied".

The patent itself contains no proper definition of the term "substrate", but paragraph [0014], which refers to Fig. 2, contains relevant information because it discloses that the substrate 5 is a film or sheet made of a resin or inorganic material such as glass, and that it may have a monolayer or multi-layered structure.

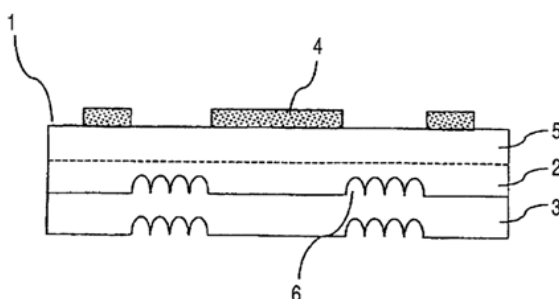


FIG. 2

The dashed line separating the substrate 5 from the relief structure-forming layer 5 might indicate that the separation is conceptual and that both layers can be made of the same material. This possibility is explicitly mentioned at the end of paragraph [0015].

Neither the common meaning of the term nor its use in the patent supports the argument that only an element with the physical properties to act as a carrier for supporting other elements on its own qualified as a substrate.

## 1.2 Feature 5: "printed layer"

Claim 1 requires the printed layer to be formed on a surface of the substrate (feature 6) and at least part

of it to be formed from an ink or toner (feature 10). This suggests that the printed layer is a layer that is obtained by depositing ink, toner or the like on the substrate of feature 2. In other words, the printed layer is formed by the material printed onto the substrate.

This understanding of the expression "printed layer" is in line with its use in the description of the patent, and in particular with the embodiment shown in Fig. 1 and 2, where the printed layer is indicated by means of reference numeral 4.

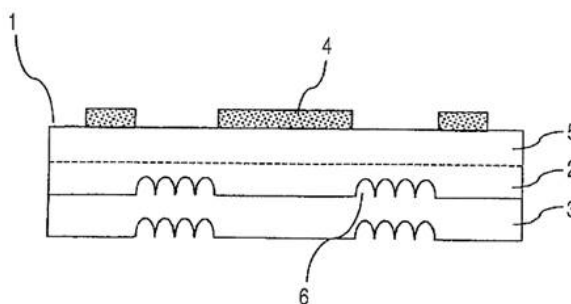


FIG.2

1.3 Feature 6: "formed on"

Feature 6 requires the printed layer of feature 5 to be "formed on" a surface of the substrate.

The opposition division understood this to be a process feature. When used in the context of product claims, these kind of features can only be considered to be limiting to the extent that they structurally define the claimed subject-matter. The opposition division considered that the feature did not structurally define the subject-matter of product claim 1 and noted that it was not apparent which distinguishing features (or, presumably, structural differences) would result from

the printed layer being formed on the substrate compared with the product disclosed in document D20 (see page 17, first paragraph of the decision under appeal). The board agrees that, in principle, close inspection would often make it possible to find out onto which layer ink was printed and which layer was subsequently deposited onto the printed layer.

However, the board is not convinced that feature 6 is a product-by-process feature, for the following reasons.

First, claim 1 is a product claim. Process features are sometimes used in product claims when it is not possible to concisely define the corresponding feature in structural terms. This does not appear to be the case with feature 6.

Second, the order in which the layers are produced does not appear to be at the core of the invention, since what is aimed for is a particular structure. The board notes that the patent does not contain method claims at all, which seems strange if the particular way in which the layers are formed is decisive.

Third, the feature is not drafted in such a way that it can only be a process feature. The semantic range covered by the verb "form" is indeed considerable. The definitions offered by the Oxford English Dictionary include: "to give form or shape to", "to place in order, arrange" and "to construct, frame; to make, bring into existence, produce".

The drafter of the patent appears to have used the word "formed" in various ways. Most often, the word is used to convey the meaning of "make" or "bring into existence" (see, for example, paragraph [0021]:

"... the printed layer 4 is formed using a material having a refractive index ..."). Sometimes the meaning appears to be that of "shaped" (see, for instance, paragraph [0025] or [0057]). However, there are several passages in the description of the patent where there is little doubt that the word "formed" conveys the idea of "arranged". Paragraph [0019], referring to Fig. 2, states that "... the printed layer 4 is depicted as a layer which is formed on the surface of the substrate 5 ...". If the production process was meant, the expression "was formed" would be appropriate. The same paragraph also contains the following statement: "The printed layer 4 may be formed between the relief structure-forming layer 2 and the light-reflecting layer 3 ...". Again, this cannot be a reference to the production process because the layer is formed between two layers, whereas the ink is deposited onto a layer and not between layers.

Having considered all the above, the board concludes that feature 6 cannot be considered a product-by-process feature and that the expression "formed on" is to be understood to mean "arranged on" or "provided on".

It was argued that, although feature 6 can be understood in this way when considered in isolation, this understanding cannot be maintained when features 5 and 6 are considered in combination. The combined expression "a printed layer ... formed on a surface of the substrate" could only refer to a layer that has actually been printed onto the substrate.

The board does not find this argument persuasive, for the following reason. In original claim 1 and claim 1

as granted, the equivalent of features 5 and 6 covers three alternatives and reads:

- "and a printed layer (4) formed on
- a surface of the substrate (5) opposite to the surface on which the relief structure-forming layer (2) is disposed, or
  - between the relief structure-forming layer (2) and the light-reflecting layer (3), or
  - on a side of the light-reflecting layer (3) opposite to its surface in contact with the relief structure-forming layer (2) ..."
- (bullets and underlining by the board)

Features 5 and 6 only include the first of these three alternatives. The expression "formed on" must be interpreted in the same way for all three alternatives. However, in the second alternative the product-by-process understanding is not technically plausible.

#### 1.4 Feature 10

Feature 10 requires at least a part of the printed layer to be formed from an ink or toner. The expression "at least a part of the printed layer" is understood to mean "the entire printed layer or a part of the printed layer". Accordingly, feature 10 can be expressed as a set of four alternatives:

- the entire printed layer is formed from an ink, or
- the entire printed layer is formed from toner, or
- part of the printed layer is formed from an ink, or
- part of the printed layer is formed from toner.

The question arises as to how the last two alternatives are to be understood. In other words, if only part of the printed layer is formed from an ink (or toner, as the case may be), what is the rest of the layer formed from? The patent does not dwell on this matter. In the absence of any further guidance, the board concludes that the skilled person would have understood that the printed layer can be formed of both ink and toner (part of it being formed from ink, the rest being formed from toner) or, alternatively, that part of the printed layer is formed from a further, undisclosed printed material that is neither ink nor toner.

1.5 Feature 9

Feature 9 requires the relief-structured region of the relief structure-forming layer of the display to "exhibit a diffracted light emitting property under a specific condition".

Paragraph [0035] of the patent defines "specific condition" as a condition in which light enters a display surface at an acute angle, the display being visually observed by an observer.

Consequently, the feature as a whole is understood to mean that the region can diffract visible light when illuminated at an acute angle.

During the first-instance proceedings, the question arose as to whether the diffracted light has to be visible to an onlooker. In the event that there is diffraction under certain circumstances but the diffracted light cannot leave the display, it is questionable whether feature 9 is still fulfilled. The board notes that feature 9 is a feature of the



relief-structured region of the relief structure-forming layer and not of the display as such. Accordingly, the possibility of the display having further components that prevent the diffracted light from reaching an onlooker appears to have no bearing on whether feature 9 is fulfilled.

2. Main request

2.1 Admittance

The main request corresponds to the main request before the opposition division and is part of the proceedings.

2.2 Compliance with Article 123(2) EPC

The opposition division found claim 1 not to fulfil the requirements of Article 123(2) EPC because there was no basis for feature 10 in the original application. There was a basis for claiming a printed layer made of an ink or toner in paragraph [0018] of the application, but not for the expression "at least a part of" (see point 10.2.2 of the decision under appeal).

On appeal, it was argued that the skilled person contemplating the teaching of paragraph [0018] of the original application (more precisely, paragraph [0018] of the A1 publication, which corresponds to the passage in the original application extending from page 6, line 25 to page 7, line 15) would have understood that a part of the printed layer or the entire printed layer may be formed from an ink or toner.

The passage in question reads:

"The printed layer 4 displays an image such as

pattern, character or symbol, and various inks such as offset inks, letterpress inks or gravure inks can be used depending on the method for printing the printed layer 4. The ink used for the printing can be classified based on a classification by composition such as resin-type ink, oil-based ink and water-based ink or a classification by drying process such as oxidative polymerization-type ink, penetration dry-type ink, evaporation dry-type ink and ultraviolet-curing ink, and is appropriately selected according to the type of the substrate and the printing method. Further, it is a commonly used technique for forming a printed layer that a toner obtained by attaching coloring particles such as graphite or pigment to plastic particles having a property of electrification is transferred onto a substrate such as paper by utilizing static electricity and then fixed by heating."

The passage deals with the materials that can be used to form the printed layer, i.e. various inks, but also toner. It appears to be silent on whether only parts of the layer may be made from those materials (and other parts by other materials). The skilled person reading this paragraph might have realised that mixes of ink and toner can be envisaged, but the paragraph contains no direct and unambiguous disclosure of this option.

One argument was based on original dependent claims 2 to 4, which all refer to "at least a part of the printed layer". Original claim 1 only requires there to be a printed layer and contains a list of three possible locations of this layer (one of which has been retained in claim 1 of what is now the main request). Original dependent claims 2 to 4 further qualify the printed layer. For instance, dependent claim 2 further

specifies the subject-matter of original claim 1 to the effect that "at least a part of the printed layer is formed from an ink or toner having low reflectivity and low diffusibility for a predetermined incident light". This can hardly be said to provide a basis for claiming that at least part of the printed layer is formed from any ink or toner.

It was argued that these dependent claims disclosed that the printed layer could be heterogeneous in the sense that "at least a part" of the printed layer had a given characteristic. The board agrees. Nevertheless, they do not provide a basis for the more general formulation expressed in feature 10 as understood by the board (see point 1.4 above).

Another argument involved discerning two features in original claim 2. Accordingly, the claim was said to claim (i) that at least a part of the printed layer was formed from an ink or toner, and (ii) that the ink or toner had low reflectivity and low diffusibility for a predetermined incident light. Feature (ii) was said to be merely optional in light of the disclosure on page 16, lines 3 to 6, as follows:

"As the ink or toner for forming the printed layer, the one exhibiting low reflectivity and low diffusibility for a predetermined illumination light is used preferably."

The board cannot endorse this argument. It is correct that the low reflectivity and diffusibility of the ink are disclosed as being preferential (and therefore optional), but this is merely the counterpart to the claim structure in the description, with this feature constituting dependent claim 2 whereas the essential

features of the invention are expressed in claim 1. Separating claim 2 into two features is artificial and not warranted by the disclosure of the rest of the original application. Thus, claim 2 does not provide a valid basis for feature 10 either.

As a consequence, the board concludes that the opposition division was right in considering that claim 1 of the main request does not fulfil the requirement of Article 123(2) EPC.

### 2.3 Conclusion on the main request

Claim 1 of the main request does not comply with the requirements of Article 123(2) EPC. Therefore, the patent cannot be maintained on the basis of the main request. The request has to be dismissed.

### 3. Exclusion of document D20

Document D20 was filed by the opponent (now: respondent) in a letter received at the EPO on 6 May 2016, i.e. one month before the oral proceedings before the opposition division, which took place on 7 June 2016.

#### 3.1 Admittance by the opposition division

The opposition division admitted the document because, after having heard the parties on this issue, it found it to be *prima facie* relevant (see page 16, second paragraph of the decision under appeal).

It was argued that the opposition division should not have admitted the document because its late filing constituted a tactical abuse of proceedings.

The board is not convinced that the opponent's (now: respondent's) behaviour can be deemed an abuse of proceedings. As undesirable as it may be, the filing of additional, allegedly relevant prior art one month before oral proceedings is not uncommon, not least because this is a commonly set time limit for filing written submissions and because parties often start preparing for oral proceedings shortly before that time limit. The fact that the document cited was one of the opponent's own patent applications certainly raises the question why it had not been filed at an earlier stage of the proceedings, but wilful delaying is not the only possible explanation for its late filing. Nonetheless, the board does not wish to engage in speculation on whether it is more likely than not that the opponent was aware of document D20 or its relevance for the case in hand when filing the opposition.

The board understands that the short amount of time between the filing of document D20 and the oral proceedings created difficulties for the appellant, not least because the patent proprietor is Japanese and there was a second - Japanese - law firm involved in the case. The board is aware of the difficulties involved in such a set-up, but the appellant did not inform the opposition division that it could not deal with the new procedural situation without a postponement of the oral proceedings. Therefore, its criticism that the opposition division did not postpone the oral proceedings appears to be unfounded.

The board is also aware of the inherent asymmetry between patent proprietors' and opponents' procedural situations in opposition and opposition appeal proceedings that should be taken into account in

discretionary decisions on the admissibility of late-filed evidence and requests. However, this does not mean that highly relevant but late-filed prior art can never be admitted.

### 3.2 Possibility to reverse the admittance on appeal

The board is not aware of any explicit legal basis that would make it possible to retroactively exclude evidence that has been admitted into the proceedings and decided upon by the department of first instance. In this respect, the board shares the opinion expressed in decision T 617/16 of 10 July 2020, reasons 1.1.1, and the decisions cited in support. The appellant conceded that there was no proper legal basis for a reversal of the admittance.

However, it could be argued that the opposition division's decision to admit document D20 is part of the decision under appeal and as such is part of the appeal under Article 12(2) RPBA 2020 and open to review.

In the context of the review of discretionary decisions taken by the departments of first instance, reference is sometimes made to decision G 7/93 of 13 May 1994 (OJ EPO 1994, 775). In this case, the Enlarged Board of Appeal considered a situation where an examining division had refused to admit amendments after the applicant had given its approval to the notified text pursuant to Rule 51(4) EPC 1973. The Enlarged Board made the following statement (see reasons 2.6):

"In the circumstances of a case such as that before the referring Board, a Board of Appeal should only overrule the way in which a first instance

department has exercised its discretion if it comes to the conclusion either that the first instance department in its decision has not exercised its discretion in accordance with the right principles as set out in paragraph 2.5 above, or that it has exercised its discretion in an unreasonable way, and has thus exceeded the proper limits of its discretion."

However, it has to be noted that decision G 7/93 deals with a completely different situation (namely the discretionary decision not to admit amendments). Moreover, it is clear from the above quote alone that the Enlarged Board did not intend to make a general statement but rather was considering particular circumstances relating to the admission of amendments in the advanced stages of grant proceedings. It is doubtful whether the Enlarged Board's statement provides a sufficient basis for the possibility, let alone the obligation, for a board to review an opposition division's discretionary decision to admit a late-filed piece of prior art it considered relevant.

Another important aspect to be taken into account is the principle of examination by the EPO of its own motion, enshrined in Article 114(1) EPC. This principle also applies to opposition proceedings, as explained in decision G 9/91 of the Enlarged Board of Appeal, reasons 16 (OJ EPO 1993, 408). The Enlarged Board noted that this established practice is aimed at avoiding the maintenance of European patents which are invalid, and confirmed that an opposition division may, pursuant to Article 114(1) EPC, of its own motion raise a ground for opposition not covered by the statement pursuant to Rule 55(c) EPC [1973] or consider such a ground raised by the opponent (or referred to by a third party under

Article 115 EPC) after the expiry of the time limit laid down in Article 99(1) EPC. Although this option is mitigated to some extent by Article 114(2) EPC, according to which the EPO "may disregard facts or evidence which are not submitted in due time by the parties concerned", the need to avoid the maintenance of European patents which are invalid justifies, in first-instance proceedings, the admittance of documents that, in the opposition division's view, are *prima facie* relevant.

This is exactly what motivated the opposition division's decision to admit document D20. The decision was based on the correct criteria (*prima facie* relevance) and there is no reason to believe that the division exercised its discretion in an unreasonable way.

In principle, it is possible that the opposition division's assessment of the relevance of document D20 was incorrect and that the document was not actually relevant. However, the opposition division's possible error of judgement does not lead to a lasting adverse effect for the appellant because an irrelevant document, despite being admitted into the proceedings, cannot stand in the way of the board's maintenance of the patent.

The assertion that the late filing of document D20 was an intentional abuse of proceedings does not lead to a different conclusion. This assertion is a mere allegation: as already mentioned above, the board cannot see any clear evidence for an abuse of proceedings. And even if there had been an abuse of proceedings, it is highly questionable, especially in view of Article 114(1) EPC, that the opposition



division, after having found the document to be *prima facie* relevant, should have simply ignored the document and maintained a patent which it considered to be *prima facie* invalid. There are other, better ways to deal with such a situation, such as the postponement of oral proceedings and a decision on apportionment of costs under Rule 88(1) EPC.

### 3.3 Conclusion

In summary, the board is of the opinion that document D20 cannot be disregarded in the appeal proceedings. As a consequence, the board has dealt with the novelty objection based on this document (see point 4.2 below).

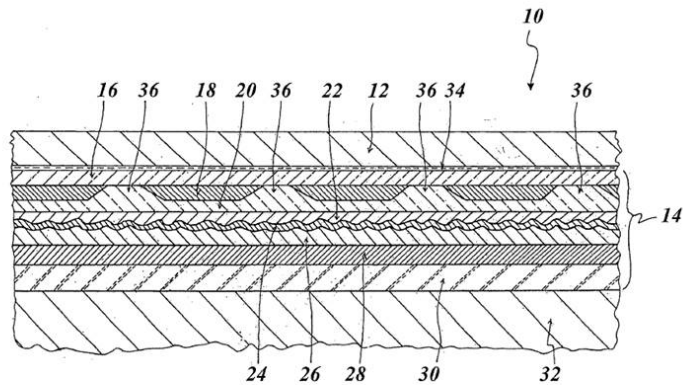
## 4. Auxiliary request 1

### 4.1 Admittance

Auxiliary request 1 is identical to the request filed as "new auxiliary request 5" during the oral proceedings before the opposition division and is part of the appeal proceedings.

### 4.2 Novelty with respect to document D20

Document D20 deals with tamper-proof car licence plates. The embodiment of Fig. 1 comprises a discontinuous opaque decorative layer 18, a transparent protective layer 20, an optically variable layer 22 and a reflective layer 24:



*Fig. 1*

The parties disagreed on whether document D20 disclosed features 3, 6 and 9.

4.2.1 Feature 3

The optically variable layer 23 is in contact with the transparent protective layer and has a relief-structured region on a surface opposite to its surface in contact with the substrate. Thus, document D20 discloses feature 3. The appellant's counter-argument is based on the assertion that the layer 20 does not qualify as a substrate, which the board finds unpersuasive (see point 1.1 above).

4.2.2 Features 5+6

Features 5 and 6 require a printed layer to be formed on a surface of the substrate opposite to the surface on which the relief structure-forming layer is disposed.

The opposition division considered the decoration layer 18 in the embodiment of Fig. 1 of document D20 to constitute such a printed layer. The appellant did not contest this finding before the board, but pointed out

that features 5 and 6 had to be read together and understood such that the layer is generated by depositing ink on the substrate.

Document D20 discloses that the printed layer is obtained by printing opaque material (an example composition is indicated; see page 13, line 26 to page 14, line 1) onto the release layer 16. Printing onto the protection layer 20 is not envisaged. On the contrary, the protection layer 20 is printed onto the decoration layer such that the recesses in the layer are filled (see page 14, lines 4 to 16).

The crucial question to be answered by the board is whether the decoration layer 18 resulting from this operation, as shown in Fig. 1, can be said to have features 5 and 6.

In view of the interpretation of features 5 and 6 adopted by the board (see points 1.2 and 1.3 above), the answer has to be that it does. Decoration layer 18 is a printed layer that is formed on (i.e. arranged at) a surface of the substrate according to features 5 and 6. That the decoration layer 18 was obtained by depositing material on the release layer 16 and not on the substrate 20 is irrelevant in this context.

Accordingly, document D20 is found to disclose features 5 and 6 in combination.

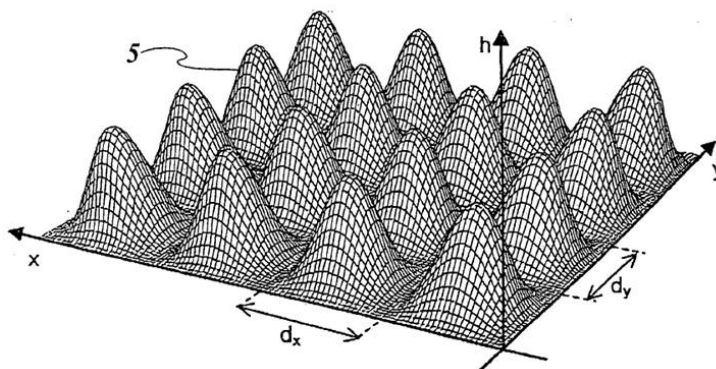
#### 4.2.3 Feature 9

Feature 9 requires the relief-structured region to exhibit a diffracted light emitting property under a specific condition.

The opposition division considered this feature to be disclosed in document D20 and referred to Fig. 2, page 16, lines 8 and 13, and claim 16.

This disclosure is somewhat intricate, in particular because the reference  $\lambda$  appears to be used inconsistently for both the boundary wavelength and the periods under consideration. The question is what the skilled person reading this passage would have understood.

According to the passage, Fig. 2c shows a relief structure 5 formed by a cross-grating composed of two base gratings, the period of which is smaller than a boundary wavelength, which is stated as being at the short wavelength end of the visible light spectrum (which is commonly held to cover wavelengths from about 380 to about 740 nm). Since the wavelength of 318 nm is way below the short wavelength end of the visible light spectrum, it has to be a lower limit for the period, whereas 420 nm, which is a value near the short wavelength end of the visible light spectrum, must be the upper limit (and the boundary wavelength). The relief structure 5 also has an optically effective structure depth  $h$  (profile depth multiplied by the refractive index of the replicating layer) of preferably between 50 and 500 nm. This particular range is also claimed in claim 16 of document D20.



*Fig. 2c*

On this basis, the opposition division considered feature 9 to be implicitly disclosed in document D20.

It was argued that the above-mentioned passage could also be construed as referring to periods below the limit wavelength, and that in this case the wavelength value of 318 nm would not be expressly disclosed. Moreover, the period could be below 200 nm, i.e. below the range of periods which, in the opposition division's view, would result in the diffraction of visible light, which is a requirement for feature 9 to be fulfilled. However, the board concludes that this is not how the skilled reader would have understood the passage (see above).

It was argued that document D20 broadly defined the profile depth to lie in the range of 50 nm to 500 nm. According to paragraph [0069] of the patent, when the height of the recessed or protruding portions is less than 200 nm, it is impossible to impart sufficient low reflectivity and low diffusibility. Therefore, according to this argument, the periods and heights of the cross-gratings mentioned in document D20 would not always and inevitably implement features 8 and 9 in

combination. However, this is not relevant because a value of 500 nm is explicitly disclosed.

Fig. 2c corresponds to a detail of the relief structures shown in Fig. 2a and 2b (see page 11, lines 10 and 11 of document D20), i.e. surface portions 37 and 41, respectively. On page 16, lines 3 to 6, it is disclosed that the relief structure 5 absorbs the incoming light. The passage on page 16, lines 14 to 16 adds that most of the light is absorbed but a small fraction of the light is reflected. However, the first surface portions 38 and 42 act as mirrors (page 16, lines 1 to 3, and page 17, lines 1 to 3). Therefore, under specular reflection conditions - and under specular reflection conditions only - a contrast is obtained (page 17, lines 1 to 10). The argument that this was further evidence that feature 9 was not implicitly disclosed in document D20 is unpersuasive because the passages under consideration deal only with the reflection of light. Considering that the relief structure 5 has the required dimensions, it will diffract light and, therefore, exhibit a diffracted light emitting property under a specific condition, as required by feature 9. Put another way, the skilled person would have realised that there is an optically variable effect on top of the contrasts mentioned in document D20.

Therefore, the board concludes that document D20 also discloses feature 9.

#### 4.2.4 Conclusion on novelty

Document D20 discloses all features of claim 1 in combination. As a consequence, the subject-matter of

claim 1 is not new over document D20 within the meaning of Article 54(1) EPC.

4.3 Conclusion on auxiliary request 1

As the subject-matter of claim 1 of auxiliary request 1 lacks novelty, the patent cannot be maintained on the basis of this request. Auxiliary request 1 is dismissed.

5. Auxiliary requests 2 to 16

Auxiliary requests 2 to 16 were filed for the first time together with the statement of grounds of appeal. Therefore, the board has the power not to admit them if they could (and should) have been presented during the opposition proceedings pursuant to Article 12(4) RPBA 2007, which is applicable in the case in hand (see Article 25(2) RPBA 2020).

Having weighed up the arguments presented by the parties, the board concludes that auxiliary requests 2 to 16 could and should have been filed at the latest during the oral proceedings before the opposition division, for the following reasons.

Document D20 was filed on 6 May 2016, i.e. one month before the oral proceedings before the opposition division scheduled for 7 June 2016, and within the time limit under Rule 116 EPC as set in the summons issued on 17 November 2015.

The opponent did not inform the patent proprietor of the filing of document D20. The board considers that this would have been the most desirable course of action, but there is no legal obligation for an

opponent to do so. By letter dated 12 May 2016 the EPO informed the patent proprietor that the document was available online via the European Patent Register.

Had the patent proprietor been unable to cope with this late filing, it should have requested a postponement of the oral proceedings. No such request was filed. The fact that the patent proprietor's internal organisation (impossibility to cancel trips to Europe once allowed by the Japanese top management) prevented it from requesting such a postponement cannot be construed as being unfair on the patent proprietor. Moreover, the fact that the patent proprietor underestimated the relevance of document D20 and overestimated the chances of it not being admitted by the opposition division cannot work in the appellant's favour.

The board cannot endorse the appellant's assertion that the introduction of the RPBA 2020 changed the nature of appeal proceedings and that it could not have been foreseen in 2017 that auxiliary requests filed for the first time with the statement of grounds of appeal would not be admitted. Although the RPBA 2020 have made this aspect more explicit, there was a considerable body of jurisprudence based on decision G 9/91 (*supra*) well before 2017 highlighting the fact that the appeal proceedings primarily serve the purpose of offering a judicial review of first-instance decisions (see, for instance, "Case Law", 7th edition, 2013, IV.E.4.1.4).

During the oral proceedings before the opposition division, the proprietor filed several additional auxiliary requests, some of which were admitted. The request on the basis of which the patent was maintained was one of them. In other words, the patent



proprietor was given, and availed itself of, the opportunity to react to the admittance of document D20 (and to the opposition division's change of mind concerning the disclosure of document D3). Auxiliary requests 2 to 16 before the board were not filed during the first-instance oral proceedings, but they could have been. The patent proprietor's specialists were present at these oral proceedings and could have specified these fallback positions.

It was argued that the opposition division refused to admit requests including additional features taken from the description. This assertion is not supported by the minutes of the oral proceedings or the decision under appeal: according to the minutes, auxiliary requests 9 and 10 were not admitted because they did not *prima facie* comply with Article 123(2) EPC (see points 9.1.1 and 10.1.1; see also points 16.2 and 17.1 of the reasons for the decision under appeal). Regardless, if the opposition division had refused to consider additional requests only because additional features were taken from the description (i.e. arguably on the basis of the wrong criteria), the patent proprietor should have nevertheless filed those requests, which would have given the opposition division the opportunity to decide on their admittance and, if it chose not to admit them, to explain the reasons why. The patent proprietor's failure to file such requests has diminished its chances of having them admitted by the board of appeal.

Instead of filing such requests before the opposition division, the appellant chose to file requests in line with the conditions allegedly set by the opposition division (i.e. requests based on dependent claims only)

and obtained the maintenance of the patent on the basis of one of them.

The board wishes to point out that patent proprietors do not have a general right to have requests based on additional features taken from the description admitted at any stage of the proceedings. Whether such amendments are admissible depends on the individual case and the specific procedural situation.

The board also notes that the patent proprietor's strategy pursued in the first-instance proceedings is significantly different from that underlying auxiliary requests 2 to 16 filed together with the statement of grounds of appeal. The key feature in the first-instance proceedings was feature 10, according to which "at least a part of the printed layer ... is formed from an ink or toner". The various auxiliary requests limited the feature to ink alone (auxiliary requests 1 to 11). Auxiliary requests 2 to 4, 6 and 7 related to particular colours of the ink. Auxiliary requests 5 to 11 required the entire printed layer to be formed from ink. The only request that added features unrelated to the ink was auxiliary request 10, which added a diffraction grating to the relief structure-forming layer of feature 2. The situation is different for auxiliary requests 2 to 16 filed on appeal. Auxiliary requests 2 to 4 and 7 to 14 require the substrate to be a resin film or sheet. Auxiliary requests 3 and 4 introduce the feature that the relief-structured region and the printed-layer region both display images. Auxiliary requests 5 to 16 are limited to paper substrates. In these requests, the claimed subject-matter no longer relates to a display but to information-printed matter comprising a display. Auxiliary requests 15 and 16 go so far as to claim the

use of information-printed matter comprising a display. All in all, the appellant has gone in completely new directions that had not been envisaged during the first-instance proceedings. This strategy is not in accordance with the main purpose of appeal proceedings which is to review the decision of the department of first instance.

Incidentally, throughout the written appeal proceedings, the patent proprietor did not offer any justification for the late filing of auxiliary requests 2 to 16. The argument that it had not been possible to do so before the opposition division, and the reasons why, were presented for the first time at the oral proceedings before the board. Had the requests been filed as a reaction to the impossibility of filing them before the opposition division, the statement of grounds of appeal would have been expected to contain a statement to that effect. The board's overall perception is that the appellant considered the appeal proceedings to constitute an opportunity to further improve its situation by specifying new fallback positions that it had not envisaged during the opposition proceedings. However, this runs counter to the purpose of appeal proceedings.

The argument that not admitting auxiliary requests 2 to 16 would constitute an incentive for opponents in other cases to delay the filing of relevant documents cannot be endorsed either. As a rule, the admittance of late-filed documents is a discretionary decision of the deciding body and depends on the circumstances of the specific case. An opponent withholding a possibly relevant document runs the risk of not having that document admitted, be it only because the opposition division may judge the document not to be *prima facie*

relevant. As a rule, the patent proprietor will also be allowed to react by filing further requests when late-filed prior art is admitted.

Having considered all the above, the board has decided to exercise its power under Article 12(4) RPBA 2007 and not admit auxiliary requests 2 to 16.

6. Overall conclusion

As neither the main request nor auxiliary request 1 is allowable (see points 2. and 4.) and as all the other auxiliary requests are inadmissible (see point 5.), the appeal is to be dismissed.

7. Objection under Rule 106 EPC

The appellant's objection against the board's decision not to admit auxiliary requests 2 to 16 is unfounded.

As mentioned above, the requests were filed for the first time together with the statement of grounds of appeal. Under Article 12(4) RPBA 2007, which applies in this case, the board has the power to hold inadmissible requests which could have been presented in the first-instance proceedings. As explained above (see point 5.), the board concludes that the requests could and should have been presented in the first-instance proceedings. As a consequence, the board exercised its discretion and decided not to admit the requests. This decision was taken in accordance with established principles (see "Case Law", 9th edition, 2019, V.A 4.11.3 d) and decision R 6/17, reasons 3.5).

Moreover, the board's intention not to admit the requests was announced in point 6 of its communication

pursuant to Article 15(1) RPBA, to which the appellant chose not to reply. The question was discussed at great length during the oral proceedings before the board. The appellant had the opportunity to present its arguments in favour of the admittance of auxiliary requests 2 to 16 and availed itself of this opportunity. As a consequence, the board is unable to see any violation of the appellant's right to be heard.

Consequently, the objection under Rule 106 EPC is dismissed.

## **Order**

### **For these reasons it is decided that:**

1. The appeal is dismissed.
2. The objection raised by the appellant in respect of a procedural defect is dismissed.

The Registrar:

The Chairman:



N. Schneider

P. Lanz

Decision electronically authenticated