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**Datasheet for the decision  
of 7 May 2013**

**Case Number:** T 0436/11 - 3.3.01

**Application Number:** 01111193.7

**Publication Number:** 1153989

**IPC:** C09D 5/38

**Language of the proceedings:** EN

**Title of invention:**

Water-based metallic coating composition

**Patent Proprietor:**

KANSAI PAINT CO., LTD.

**Opponent:**

BASF Coatings GmbH

**Headword:**

Water-based metallic coating compositions/KANSAI PAINT

**Relevant legal provisions:**

EPC Art. 111(1), 56, 54

RPBA Art. 13(3)

**Keyword:**

"Main request - novelty - (no) "

"Auxiliary requests 1 and 2 - inventive step - (no) - alleged improved effect not shown over the whole claimed scope - obvious alternative"

"Remittal/Postponement - (no) - no specific reason justifying them"

**Decisions cited:**

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**Catchword:**

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Case Number: T 0436/11 - 3.3.01

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.01  
of 7 May 2013

**Appellant:** BASF Coatings GmbH  
(Opponent) Glasuritstraße 1  
D-48165 Münster-Hiltrup (DE)

**Representative:** Leifert, Elmar  
Leifert & Steffan  
Patentanwälte  
Postfach 10 40 09  
D-40031 Düsseldorf (DE)

**Respondent:** KANSAI PAINT CO., LTD.  
(Patent Proprietor) 33-1, Kanzaki-cho  
Amagasaki-shi, Hyogo-ken 661-8555 (JP)

**Representative:** Weist, Stefan  
Kraus & Weisert  
Patent- und Rechtsanwälte  
Thomas-Wimmer-Ring 15  
D-80539 München (DE)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 17 December 2010  
rejecting the opposition filed against European  
patent No. 1153989 pursuant to Article 101(2)  
EPC.

**Composition of the Board:**

**Chairman:** C. M. Radke  
**Members:** J.-B. Ousset  
L. Bühler

## Summary of Facts and Submissions

- I. The appeal lies from the decision of the opposition division to reject the opposition concerning European patent No. 1 153 989.
- II. The opposition division found that the claimed subject-matter was sufficiently disclosed differed from the disclosure in document (2), and that document (2) in combination with document (4) did not render the claimed subject-matter obvious. Moreover, late-filed documents (4) and (6) were admitted into the proceedings.
- III. The documents cited in the opposition and appeal proceedings included the following:
- (1) EP-A-0 089 497
  - (2) DE-A-40 28 386
  - (3) Römpp Chemie-Lexikon, 9. Edition (1995)  
pages 1593-1594.
  - (4) US-A-5 939 475
  - (6) "Versuchsbericht" submitted by the appellant with  
its letter of 30 September 2010
  - (13) JP-A-1-193370 and its English translation (13a)
  - (14) Information leaflet "Bentonite<sup>®</sup> 27", Elementis  
Specialities, 4 November 2010, 2 pages
  - (15) Information leaflet "Bentonite<sup>®</sup> LT", Elementis  
Specialities, 14 September 2012, 2 pages
  - (16) EP-A-0 445 653
  - (17) EP-A-0 295 666
  - (18) Römpp Chemie Lexikon, Georg Thieme Verlag  
Stuttgart, New York, 1995, 9th ed., vol. 3,  
page 1750.

IV. The arguments of the appellant (opponent) can be summarised as follows:

- The comparison of the results of the tests in the patent in suit with those of document (6) led to the conclusion that the claimed subject-matter was not reproducible.
- The claimed subject-matter was not novel in view of the disclosure of document (2).
- The experimental results provided by the respondent with its letter of 23 May 2006 had not convincingly shown an improved flip-flop effect.
- The teaching of document (2) rendered the claimed coating compositions obvious.
- Document (6) showed that the presence of both additives (a polyamide and a metal silicate) did not have an improved effect compared to the compositions containing only a polyamide.
- Documents (13) to (18) should be admitted into the proceedings, since at least document (13) was highly relevant and since they had been submitted in response to the submission of auxiliary requests 1 and 2 of the respondent.

V. The respondent (patent proprietor) argued mainly as follows:

- The claimed coating compositions had been sufficiently disclosed. A synergistic effect was no feature of the claims.
- Document (2) did not describe the use of a combination of a metallic pigment and a metal silicate.
- The reproduction of the process of document (2) did not lead to the subject-matter of claim 1 of the patent in suit. Moreover, said document only mentioned the presence of metal silicates which were coated.
- Document (2) did not disclose compositions containing a metal silicate which was not a pigment.
- Document (2) did not address the same problem as the patent in suit, namely to avoid mottling and to improve the flip-flop effect. Moreover, it did not give examples of any compositions containing a metal silicate, a metallic pigment and a polyamide.
- The experimental evidence provided with letter of 31 August 2011 showed that the coating produced according to example 1 had improved mottling and flip-flop properties.

VI. The present decision is based on the set of claims as granted and on the claims of auxiliary requests 1 and 2 filed with the respondent's letter of 29 January 2013.

Claim 1 as granted reads as follows:

"1. A water-based metallic coating composition comprising a resin composition for a water-based coating composition, a metallic pigment, metal silicate and a polyamide resin."

Claim 1 of auxiliary request 1 reads as follows:

"1. A water-based metallic coating composition comprising a resin composition for a water-based coating composition, a metallic pigment, metal silicate and a polyamide resin, wherein the metal silicate is lithium magnesium sodium silicate."

Claim 1 of auxiliary request 2 reads as follows:

"1. A water-based metallic coating composition comprising a resin composition for a water-based coating composition, a metallic pigment, metal silicate and a polyamide resin, wherein the polyamide resin is fatty acid polyamide wax."

VII. The appellant requested that the decision under appeal be set aside and that European patent No. 1153989 be revoked. Furthermore, it requested that documents (13) to (18) be admitted into the proceedings.

VIII. The respondent requested that the appeal be dismissed or, alternatively, that the patent be maintained on the basis of one of auxiliary requests 1 and 2 filed with letter of 29 January 2013. Furthermore, it requested that documents (13) to (18) not be admitted into the proceedings. If they were admitted, the oral

proceedings should be postponed or the case should be remitted to the department of first instance.

IX. At the end of the oral proceedings, the decision of the board was announced.

### **Reasons for the Decision**

1. The appeal is admissible.

2. Disclosure of the invention

In view of its conclusions below (see points 3.2, 7.3 and 8.3) the board did not decide on the ground for opposition pursuant to Article 100(b) together with Article 83 EPC.

3. Main request

3.1 Novelty

3.2 Novelty was disputed only with respect to the disclosure of document (2). This document discloses water-based coating compositions which contain

- a resin for a water-based composition (see claim 7, line 5, "wasserverdünnbares Polyurethanharz"),
- a polyamide (see claim 7, line 8), and
- pigment particles (see also claim 7, line 6).

Different types of pigments can be added to the water-based compositions (see column 7, lines 13 to 18). Moreover, as pigments mica flakes ("Glimmerplättchen")

coated with metal oxide may be used in combination with or instead of aluminium flakes ("Aluminiumplättchen"), (see column 7, lines 27 to 30). Mica is a metal silicate (see document (3), left-hand column, keyword "Glimmer"). Hence, document (2) discloses water-based coating compositions containing the resin, the polyamide, a metal silicate (mica) and a metallic pigment ("Aluminiumplättchen").

Therefore, the subject-matter of claim 1 cannot be distinguished from the disclosure of document (2).

- 3.2.1 The respondent argued that document (2) taught the use of the coated mica as a pigment, not as a metal silicate in the sense of claim 1 of the main request.

This argument is not convincing. The wording of claim 1 of the main request requires that a metal silicate be present in the water-based coating compositions. Whether this silicate is a pigment or serves another purpose is irrelevant for assessing novelty.

- 3.2.2 The respondent also argued that the reproduction of the process described in document (2) would not lead to the claimed water-based coating compositions.

This assertion is unfounded, since the respondent had not provided any evidence to support it.

- 3.2.3 The respondent also argued that document (2) required the mica (i.e. the metal silicate) to be coated with a metal oxide, contrary to the claimed compositions of the main request.



This argument cannot convince the board, since the wording of claim 1 of the main request contains the word "comprising". This means that additionally to the compulsory constituents listed in claim 1 for the water-based coating compositions further compounds may be present, such as metal oxides. Whether such further compounds are present as separate components or as coatings on the metal silicate does not matter.

3.3 The board thus concludes that the subject-matter of claim 1 of the main request lacks novelty.

4. Admissibility of auxiliary request 1 and 2

4.1 Auxiliary requests 1 and 2 were filed shortly after oral proceedings had been arranged. According to Article 13(1) RPBA it is at the board's discretion to admit amendments to a party's case filed after the grounds of appeal or the reply thereto. According to Article 13(3) of the Rules of Procedure of the Boards of Appeal (RPBA) any amendment filed after oral proceedings have been arranged is not accepted if it raises issues which require the adjournment of oral proceedings (see the supplement to OJ EPO 1/2012, 39).

4.1.1 These requests were filed before the department of first instance with letter of 25 November 2010 but were not considered by the opposition division, since it maintained the patent in suit on the basis of the main request.

In comparison to the main request, the subject-matter of claim 1 has been limited by introducing claim 5 as granted into claim 1 of auxiliary request 1 and claim 7

as granted into claim 1 of auxiliary request 2. Such limitations do not require any further search from the appellant, since it had opposed the patent in its entirety (see letter of 7 December 2005, top of page 2) and, consequently, should have been prepared to argue on the basis of all granted claims. Furthermore, the appellant had already considered these requests in its statement setting out the grounds of appeal (see letter of 21 April 2011, last paragraph on page 19). Therefore, the subject-matter of these requests could be dealt with without impairing the appellant's right to be heard (Article 13(2) RPBA) and without adjourning the of oral proceedings.

4.2 In view thereof, the board exercised its discretion under Article 13(1) RPBA and admitted auxiliary requests 1 and 2 into the proceedings.

5. Admissibility of documents (13) to (18)

5.1 These documents were filed with the letter dated 19 April 2013, i.e. less than three weeks before the oral proceedings before the board. The appellant contended that these documents had been found in an additional search occasioned by the late-filed auxiliary requests 1 and 2. Moreover, document (13), which was in Japanese, had required a certified translation in order to show that it was highly relevant for inventive step.

5.2 As explained previously (see point 4.1.1), auxiliary requests 1 and 2 were submitted during the written proceedings before the department of first instance. Hence, the additional search referred to in point 5.1

above and the translation should have been done at the opposition stage and not after the respondent had reintroduced these requests in the appeal proceedings. Furthermore, the appellant had already mentioned in its statement setting out the grounds of appeal that the two auxiliary requests could not be regarded as patentable; it results therefrom that it was prepared to argue on these requests without introducing further documents. Finally, the admission of these documents into the proceedings would have required the adjournment of the oral proceedings in order to allow the respondent sufficient time to duly consider their content. This would have been contrary to Article 13(3) RPBA.

5.3 Documents (13) to (18) were therefore not admitted into the proceedings.

6. Remittal - Adjournment of oral proceedings.

The respondent requested that the oral proceedings be adjourned or that the case be remitted to the department of first instance if documents (13) to (18) were admitted into the proceedings. The appellant made the same request if adjournment or remittal was required by the admission of said documents. As these documents were not admitted, the board did not have to decide on these requests.

7. Auxiliary request 1

7.1 Novelty of the subject-matter claimed in this request was disputed neither by the parties nor questioned by the board.

7.2 Inventive step

7.2.1 Claim 1 of this request differs from claim 1 of the main request in that the metal silicate is specified to be lithium magnesium sodium silicate (see point VI above).

Document (2) describes similar water-based coating compositions (see point 3.1 above) which differ from the subject-matter of claim 1 only in that they do not contain lithium magnesium sodium silicate. Furthermore, the water-based coating compositions of document (2) are applied to obtain automobile coatings showing a metallic effect (see column 1, lines 37 to 39 as well as lines 52 to 64).

For these reasons, the board agrees with the parties that document (2) represents the closest prior art.

7.2.2 The technical problem as indicated on the patent in suit consists in the provision of a water-based metallic coating composition capable of forming a film having an excellent flip-flop property and showing no metallic mottling (see [0001] of the patent in suit).

7.2.3 As evidence this problem has been solved, the respondent referred to the experimental data provided in its letter of 31 August 2011. These show that the composition of example 1 containing 3 parts of Disparlon AQ-600 (a polyamide) and 2 parts of Laponite RD (A silicate) has a better visually evaluated metallic mottling and a comparable flip-flop property compared either to example 3, in which 5 parts of

Disparlon AQ-600 and no Laponite are present, or to example 4 in which 5 parts of Laponite RD and no Disparlon are present. It concluded therefrom that the compositions containing a mixture of a polyamide and a metal silicate according to the invention were inventive.

Firstly, it is questionable whether these experimental data can demonstrate the presence of an unexpected (i.e. better) effect compared to the closest prior art document (2), since the compositions disclosed in this document also contain a metal silicate (mica) and a polyamide and differ from the claimed compositions only in the nature of the said metal silicate (see point 4.1 above). Secondly, the experimental data provided by the appellant in document (6) raise severe doubts as to whether the alleged improvement is observed over the whole breadth of the claims.

In the table "Bewertung Metalleffekt (Flop Index)" on page 6 of document (6)

**Bewertung Metalleffekt (Flop Index)**

		Gehalt Polyamid (fest) auf Bindemittel (Fest)			
Flop Index		0	4,50%	7%	9,50%
	0		15,8	14,8	15,5
Gehalt Laponite (Fest) auf Bindemittel (Fest)	3%	15	14,8	15,1	16
	5%	15	18,3	16,5	
	7%	16,8			

the higher the value the better the flop effect (flip-flop effect). The table shows that the best flip-flop effect (16.8) is achieved when 7% Laponite and no polyamide is present, whereas the lowest value (14.8) was *inter alia* determined for a coating containing

3% Laponite and 4.5% of the polyamide (i.e. a total of 7.5% of the additives). Hence, this table shows rather that the combination of the silicate Laponite with the polyamide may have a negative effect on the flip-flop.

In the table "Bewertung Wolken visuell" on page 6 of document 6, the mottling effect is determined visually.

**Bewertung Wolken visuell (1 = sehr gut; 5 = mangelhaft)**

		<b>Gehalt Polyamid (fest) auf Bindemittel (Fest)</b>			
<b>Labor vis</b>		<b>0</b>	<b>4,50%</b>	<b>7%</b>	<b>9,50%</b>
<b>Gehalt Laponite (Fest) auf Bindemittel (Fest)</b>	<b>0</b>		<b>3</b>	<b>3,5</b>	<b>4,5</b>
	<b>3%</b>	<b>3</b>	<b>3,5</b>	<b>4</b>	<b>4,5</b>
	<b>5%</b>	<b>3</b>	<b>3,5</b>	<b>4</b>	
	<b>7%</b>	<b>3</b>			

Higher values mean more mottling and thus an inferior quality of the coating. This table shows that the more polyamide is used the worse the mottling effect. There is no indication that the mottling effect is improved whenever a combination of the Laponite silicate with the polyamide is used.

Therefore the board concludes that the alleged effect for the claimed compositions is at least not observed over the whole claimed scope.

7.2.4 The problem defined in point 7.2.2 is thus not solved.

7.2.5 As a consequence, the problem underlying the patent in suit must be a less ambitious one, namely the provision of alternative water-based metallic coating compositions to be used in paints for automobiles.

7.2.6 In view of the different examples provided in the patent in suit and the experimental results submitted

during the written proceedings, the board has no doubt that this problem solved by the claimed compositions.

7.2.7 Starting from document (2), the person skilled in the art would have been aware of the content of document (1) which deals with the same objective, namely automobile metallic coating compositions (see page 1, lines 15 to 31 and page 2, lines 13 to 22). These compositions contain, in addition to a metallic pigment (see also page 14, lines 1 to 15), thickeners such as sodium magnesium fluoro lithium silicate (see page 22, lines 13 to 16). The person skilled in the art looking for alternative compositions (see point 7.2.5 above) would have regarded any variation in the compositions disclosed in document (2) suggested in document (1) as a solution to the problem posed. He would thus have added sodium magnesium fluoro lithium silicate to the compositions described in document (2) and thereby would have arrived at the subject-matter of claim 1 of the first auxiliary request without inventive ingenuity.

7.2.8 The respondent argued that document (1) would not have been considered by the person skilled in the art, since it did not give any example of a composition containing a metal silicate, a metallic pigment and a polyamide resin.

Examples are generally used to illustrate an invention and do not limit its scope. Hence, the person skilled in the art would have considered not only the examples but also the whole teaching of this document.

Therefore, the respondent's argument cannot convince the board.

7.2.9 The respondent also argued that document (2) would not have been considered as a starting point by the person skilled in the art, since it did not relate to the same problem as the patent in suit.

Document (2) discloses water-based compositions to be used in metallic effect coatings to be applied on automobiles (see column 1, lines 37 to 39) and deals with the improvement of the metallic effect (see column 1, lines 52 to 64). Hence, the board does not share the respondent's view.

7.3 For these reasons, the subject-matter of claim 1 of auxiliary request 1 does not involve an inventive step.

8. Auxiliary request 2

8.1 Novelty of the subject-matter claimed in this request was disputed neither by the parties nor questioned by the board.

8.2 Inventive step

8.2.1 The water-based compositions of claim 1 of auxiliary request 2 differ from those of document (2) in that a fatty acid polyamide wax is present in the claimed compositions.

8.2.2 The problem to be solved is as defined under point 7.2.5 above.

8.2.3 In view of the examples in the patent in suit and those provided with letter of 31 August 2011, the board is satisfied that this problem has been solved.



- 8.2.4 The person skilled in the art reading document (2) would have noticed that polyamides made from fatty acids were preferred as additives improving the rheology of the water-based compositions described in this document (see column 7, lines 48 to 52). As to the term "wax" used in the wording of claim 1 of auxiliary request 2, the board and both parties agreed that it means a compound having a finite viscosity. Furthermore, both parties also agreed that the only specific example given in document (2) for such fatty acid based polyamides, namely "Disparlon 6900-20X" (see column 7, lines 55 to 56 of document (2)), is a wax. Hence, the polyamide described in column 7 of document (2) falls within the broad meaning of "wax". It results therefrom that the person skilled in the art does not need any inventive skills to prepare compositions according to claim 7 of document (2) in which the polyamide is "Disparlon 6900-20X" and which contain a combination of aluminium flakes and mica (see column 7, lines 27 to 30).
- 8.3 Hence, the subject-matter of claim 1 of auxiliary request 2 does not involve an inventive step.

**Order**

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

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar

The Chairman

M. Schalow

C. M. Radke