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**Datasheet for the decision  
of 23 November 2018**

**Case Number:** T 0987/15 - 3.3.09

**Application Number:** 09706968.6

**Publication Number:** 2247445

**IPC:** B32B27/00, C08J5/18, C09D123/00

**Language of the proceedings:** EN

**Title of invention:**  
COATED BIAXIALLY ORIENTED FILM VIA IN-LINE COATING PROCESS

**Patent Proprietor:**  
Jindal Films Americas LLC

**Opponents:**  
Treofan Germany GmbH & Co. KG  
UNITIKA LTD.

**Headword:**

**Relevant legal provisions:**  
EPC Art. 100(a), 100(b)  
RPBA Art. 13

**Keyword:**

Late-filed experimental evidence - admitted (no)

Main request allowable:

- sufficiency of disclosure (yes)
- inventive step (yes)

**Decisions cited:**

T 0593/09

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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Case Number: T 0987/15 - 3.3.09

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.09**  
**of 23 November 2018**

**Appellant:** UNITIKA LTD.  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 26 March 2015  
rejecting the opposition filed against European**

patent No. 2247445 pursuant to Article 101(2)  
EPC.

**Composition of the Board:**

<b>Chairman</b>	W. Sieber
<b>Members:</b>	N. Perakis
	D. Prietzel-Funk

## Summary of Facts and Submissions

- I. This decision concerns the appeal filed by opponent 2 against the opposition division's decision rejecting the oppositions filed against European patent No. 2 247 445.

Independent claims 1, 6 and 10 read as follows:

"1. A method for producing a coated biaxially oriented film, comprising:

orienting a base film in a first direction to provide an uniaxially oriented film;  
coating at least a portion of the uniaxially oriented film with a polyolefin dispersion to produce a coated uniaxially oriented film; and  
orienting the coated uniaxially oriented film in a second direction at a temperature sufficient to stretch and anneal the coated film to provide a coated biaxially oriented film having greater than 80% gloss."

"6. A method for producing a coated biaxially oriented film, comprising:

orienting a base film in a first direction and at a first temperature to provide an uniaxially oriented film;  
wherein the base film comprises at least one skin layer on a first side of a core layer and at least one skin layer on a second side of the core layer, the base film oriented;  
coating at least a portion of the uniaxially oriented film with a polyolefin dispersion to produce a coated uniaxially oriented film; and

orienting the coated uniaxially oriented film in a second direction and at a second temperature sufficient to stretch and anneal the coated film to provide a coated biaxially oriented film having greater than 80% gloss, wherein the second temperature is greater than the first temperature and greater than the melting temperature of the polyolefin in the polyolefin dispersion."

"10. A coated biaxially oriented film, comprising:

a core layer;  
at least one skin layer disposed on a first surface of the core layer;  
at least one skin layer disposed on a second surface of the core layer, wherein the skin layers and core layer are co-extruded; and  
a coating comprising one or more polyolefin dispersions deposited on at least a portion of an outermost skin layer, wherein prior to deposition of the coating, the co-extruded film is oriented in a first direction and after deposition of the coating, the oriented film is oriented in a second direction without being taken off line."

II. In their notices of opposition, the two opponents had requested that the patent be revoked in its entirety on the basis of Article 100(a) (lack of novelty and lack of inventive step) and Article 100(b) EPC.

The documents cited in opposition included the following:

D7 : US 6 979 495 B2;

D8 : US 2005/0100754 A1;

D12: US 6 866 920 B2;

D13: US 2002/0058758 A1;

D14: US 4 956 233 A;

D15: US 4 956 241 A;

D16: "D 2457-03", Standard Test Method for Specter  
Gloss of Plastic Films and Solid Plastics (Annual  
Book of ASTM Standards 2005);

D17: "Appearance" - Distributed by Analis

D18: "Measuring the specular reflection on surfaces  
(gloss measurement)"; DR LANGE Application  
Report No. 7.3e; and

D19: Rhopoint Instruments; NOVO-GLOSS specification.

III. The opposition division rejected the oppositions.

It considered that the invention underlying the granted claims was sufficiently disclosed. Based on the patent disclosure and common general knowledge, the skilled person would have come to the conclusion that the method used to measure the gloss was the ASTM D 2457 standard test method. Furthermore, when reproducing the gloss values of the films exemplified in the opposed patent, he would have realised that the measurement was performed at an incidence angle of 45°. Furthermore, the opponents had not provided any evidence to show that the skilled person was confronted with undue experimental burden to find out which method had been used to measure the gloss parameter.

It also considered that the subject-matter of the granted claims was not disclosed in any of D1 to D6 cited by opponent 1.

Lastly, it considered that the subject-matter of the granted claims involved an inventive step over the prior art. According to the opposition division, D7 or D12 could be considered as the closest prior art from which the claimed method differed only as regards the chemical nature of the coating. The technical problem underlying the claimed invention was considered to be the provision of a multi-layer structure with excellent block, slip and sealing properties as well as good balance of haze, gloss and coating adhesion, which in the absence of any evidence filed by the opponents, was considered to have been solved across the entire scope of the claims. The skilled person starting from either D7 or D12 and seeking to solve the technical problem would not have been motivated by D8, D13 or D14 to replace the coating used in the methods of D7/D12 (acrylic polymers dispersion) with the claimed coating (a polyolefin dispersion) unless based on hindsight.

- IV. Notice of appeal was filed by opponent 2 (in the following the appellant), which requested that the opposition division's decision be set aside and that the patent be revoked in its entirety.
  
- V. By letter of 3 December 2015 the patent proprietor (in the following: the respondent) requested that the appeal be dismissed or, alternatively, that the patent be maintained on the basis of any of auxiliary requests 1 to 5. It also submitted, among others, the following document:



P11: Declaration of Mark Warren Lockhard (undated)

- VI. The appellant's letter of 27 June 2016 included "Experimentation A" relating to coated films prepared by an off-line coating process and the following document, which disclosed the aqueous polyolefin resin dispersion used in said experiments:

D20: EP 1 361 248 A1.

- VII. On 10 July 2018, the board issued a communication in preparation for the oral proceedings.

- VIII. By letter of 23 October 2018 the respondent filed new sets of claims corresponding to auxiliary requests 1-8, which replaced the previous requests.

For this decision, only the main request (claims as granted) is relevant.

- IX. By letter of 23 October 2018, the appellant filed with regard to matte films, "Experimentation B" and the following documents:

D21: EP 1 249 339 A1;

D22: EP 1 816 164 A1; and

D23: EP 1 837 363 A1.

- X. By letter of 19 November 2018, the respondent contested the admission of the appellant's new technical evidence.

- XI. Opponent 1 (party as of right) did not file any submissions/requests in the appeal proceedings.

XII. On 23 November 2018, oral proceedings were held before the board as scheduled in the absence of the duly summoned opponent 1. The appellant requested that auxiliary requests 5 to 7 not be admitted into the proceedings.

XIII. The relevant arguments put forward by the appellant in its written submissions and during the oral proceedings may be summarised as follows:

Late-filed technical evidence

- The technical evidence filed as "experimentation B" with letter of 23 October 2018 should be admitted into the proceedings. The appellant could not have filed it earlier because it had been very difficult from an industrial point of view to find a time-window for the production line to adapt the production machine and carry out the submitted experimentation.

Sufficiency of disclosure

- The patent in suit does not disclose the method for measuring gloss and the skilled person has to make several arbitrary assumptions for which no basis can be found in the application as originally filed or in the common knowledge of those skilled in the art.
- The person skilled in the art is aware that there are several different methods for measuring gloss, particularly several industrial standards employing several different incident angles (ISO, ASTM, JIS).

These different methods lead to entirely different gloss values.

- The fact that the proprietors of the patent in suit confirmed that they had used the norm ASTM D2457 at 45° is irrelevant since this occurred only during the opposition proceedings.
- Moreover, not all inventive examples provide a gloss value of greater than 80%. Indeed, inventive example 4 provides a coated biaxially oriented film with a gloss of 78%. Thus, the patent in suit does not use a reliable method to measure the gloss parameter.

Inventive step

- The subject-matter of claim 1 as granted lacks inventive step in view of the obvious combination of D12 with D8, D13 or D14.
- D12 is the closest prior art because it is in the same technical field, namely oriented films suitable for packaging purposes, and has the most features in common with the claimed method.
- The method of claim 1 differs from the method of example 1 of D12 merely in that a polyolefin dispersion is used instead of a polyacrylate dispersion.
- The patent in suit does not compare the claimed films with those of D12. Thus, it does not reveal any technical effect resulting from the use of the different coating. Moreover, D12 discloses that the acrylate coating improves sealability, a property

that the claimed invention also intends to improve. Therefore, the objective technical problem could only concern the provision of an alternative method for producing a coated biaxially oriented film.

- D8, D13 and D14 disclose that polyacrylate and polyolefin dispersions are interchangeable when used to coat oriented films. Therefore, the skilled person would be motivated by these documents to replace the polyacrylate dispersion used in the method of D12 with the polyolefin dispersion described in those documents and thus arrive at the subject-matter of claim 1 without inventive efforts.
- Furthermore, it is highly doubtful that any film within the scope of claim 1 would be suitable to achieve the alleged technical effects.
- The subject-matter of independent claim 6 also lacks inventive step in view of the obvious combination of D12 with D8, D13 or D14 as explained in the context of claim 1.
- The subject-matter of independent claim 10 can be seen as a product obtained by the method of claim 6, which thus means that there is a lack of inventive step.

XIV. The relevant arguments put forward by the respondent in its written submissions and during the oral proceedings may be summarised as follows:

Late-filed technical evidence

- The technical evidence filed as "experimentation B" was filed very late and took the respondent by surprise. It should not be admitted into the proceedings, or the case should be remitted to the opposition division to safeguard the respondent's right to be heard, and allow it to carefully verify the content of this evidence and possibly carry out its own experimentation.

#### Sufficiency of disclosure

- A lack of clarity (regarding how the gloss was measured) does not automatically lead to a finding of insufficiency.
- Whilst the method of measuring gloss is not specified in the application as filed, the person skilled in the art would realise, using his common general knowledge and common sense, that the test method used for measuring the gloss of the claimed coated biaxially oriented film is the ASTM D 2457 standard test method.
- Moreover, the skilled person would, based on D7, D15, D16 and D17, realise that the incidence angle to be used for measuring the gloss of plastic films is 45°.
- Furthermore, if the skilled person reproduced the examples of the patent in suit, he would realise that this measurement had to be performed at an angle of 45° as confirmed by P11. The incidence angles of 20° and 60° disclosed in D16 would lead to significantly different results as shown by the experimental evidence of the appellant ("experimentation A"). Thus, the retroactive

investigation of the data of table 1 of the patent in suit would also reveal the correct method.

- The appellant, which bore the burden of proof, has not shown that it is not possible to prepare the claimed films using the disclosure of the patent in suit. In this context, the additional three late-filed documents, which merely demonstrate the existence of matte films, are irrelevant.

Inventive step

- D12 is the closest prior art document. The method of claim 1 differs from D12 in that a different dispersion is used to make the coating, namely a polyolefin dispersion instead of a polyacrylate dispersion. The technical problem is the provision of a method for producing a coated biaxially oriented film with a good balance of mechanical and optical properties. The skilled person would not be motivated by D8, D13 or D14 to make the coating in the method of D12 from a polyolefin dispersion instead of the disclosed polyacrylate dispersion. None of these secondary documents disclose that a polyacrylate dispersion is interchangeable with a polyolefin dispersion. The appellant's assertions are based on an *ex post facto* analysis.
- The subject-matter of independent claims 6 and 10 also involve an inventive step for the reasons given for the subject-matter of claim 1.

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

It also requested that auxiliary requests 5 to 7 not be admitted into the proceedings.

XVI. The respondent requested that the appeal be dismissed. Alternatively, it requested that the patent be maintained on the basis of any of auxiliary requests 1 to 4 filed by letter of 3 December 2015, or auxiliary requests 5 to 8 filed by letter of 23 October 2018, (auxiliary request 8 having already been filed as auxiliary request 5 by letter of 3 December 2015).

It also requested that the experimental evidence filed by the appellant with its letter of 23 October 2018 not be admitted into the proceedings. If it were to be admitted, the case should be remitted to the opposition division.

## **Reasons for the Decision**

### **1. Late-filed experimental evidence**

By its letter of 23 October 2018 the appellant filed additional experimental evidence ("Experimentation B").

Not only was this evidence filed late, but it was submitted after the summons to attend oral proceedings had been sent and just one month before the oral proceedings was scheduled to take place.

The respondent complained that it had been taken by surprise since it had not been warned of the submission of this evidence and that it had not had sufficient time available prior to the date of the oral proceedings to fully consider the experimental

evidence, to check with relevant technical people whether it was credible, and, if required, to carry out its own experiments. The experimental evidence could have been filed earlier since the issues had not changed since the start of the opposition proceedings over six years ago. Furthermore, this evidence was not *prima facie* relevant since it did not represent a reproduction of a method according to the claimed invention. Moreover, if the additional evidence were to be admitted into the proceedings, the case should be remitted to the opposition division to safeguard its right to be heard.

In view of the current state of the proceedings, the complexity of the new submissions and the need for procedural economy, the appellant's late-filed evidence is not admitted into the proceedings (Article 13(1) and (3) RPBA).

## **2. Sufficiency of disclosure**

2.1 The relevant question for assessing sufficiency of disclosure is whether the skilled person would be able to carry out the claimed invention. This entails considering what the skilled person would do based on the disclosure of the patent as a whole and his common general knowledge. The skilled person would also seek to understand the invention and to put it into effect using a technical mind-set.

2.2 The patent specification gives the following information to the skilled person concerning the claimed invention:

Paragraph [0017] discloses that one or more thermoplastics can be extruded to provide a base film,



and that the base film can be oriented in the machine direction. Further details about film thickness and temperature that can be used during orientation are given in paragraph [0019]. Paragraphs [0023] to [0025] disclose the thermoplastic materials that can be used to make the base film. Extensive details about the base film are then provided in paragraphs [0049] to [0078].

Paragraph [0017] discloses that the machine oriented base film can be coated with a polyolefin dispersion. Paragraph [0018] discloses how to apply this polyolefin dispersion onto the oriented base film. The amounts of the polyolefin dispersion that can be applied are disclosed in paragraph [0021]. Extensive details about the polyolefin dispersion that can be used to coat the uniaxially oriented base film are provided in paragraphs [0026] to [0048].

Paragraph [0020] discloses to orientate the coated uniaxially base film in the transverse direction at a temperature sufficient to stretch and anneal the coated film and to provide a coated biaxially oriented film having greater than 80% gloss. This paragraph also provides details on the temperature that can be used.

Working examples are also provided which demonstrate how the invention can be put into practice. Out of the 12 "inventive" examples, only example 4 has a gloss value of 78%, less than the 80% required by claim 1. Apart from the fact that this isolated failure is not far from the required lower limit, an occasional lack of success does not necessarily prove that the skilled person would be unable to put the claimed invention into practice.

2.3 The only information that the patent specification does not disclose - which forms the basis of the appellant's objection - is a method for determining the gloss of the coated biaxially oriented film. Thus at first glance the claimed invention contains an ill-defined parameter. However such a lack of clarity does not automatically equate to a lack of sufficiency. Rather it would have to be shown that the gloss parameter is so ill-defined that the skilled person would not be able, based on the disclosure of the patent as a whole and using his common general knowledge, to identify without undue burden the technical measures necessary to solve the problem underlying the patent at issue (T 0593/09, catchword).

2.4 The appellant did not contest that "gloss" was a well-known property of coated biaxially oriented films at the filing date of the patent in suit and that methods and apparatuses for its determination were known in the art. This is clearly evidenced by D7 (column 6, line 38-39) and D12 (column 9, lines 48-58), to which the appellant made specific reference.

In fact, the core of the appellant's objection is that at the filing date of the patent in suit there was not one generally accepted way to measure gloss and that the skilled person would have had to choose from many available methods, these methods requiring the additional choice of a particular incidence angle, each leading to entirely different gloss values. This was supported by D17 (page 14, table A) and "Experimentation A" filed with the appellant's letter of 27 June 2016. Thus, according to the appellant, the parameter "gloss" is so ill-defined that the skilled person would not know whether he is working within the

scope of the claim, which means that the claimed invention is not sufficiently disclosed.

However, the issue of whether the skilled person would know whether he is working within the scope of the claims is, by itself, not a reason to deny sufficiency of disclosure. As stated in point 2.3 above, the relevant question is whether the parameter is so ill-defined that the lack of clarity amounts to sufficiency of disclosure.

2.5 To answer this question, it must be examined whether the skilled person based on the content of the patent application and his common general knowledge at the filing date of the patent in suit, was able to conclude that the gloss of the claimed coated biaxially oriented film had to be measured using the standard test method ASTM D 2457 at 45° as evidenced by the declaration of Mr Lockhart (P11).

2.5.1 In addition to the fact that the claimed invention is made in the USA, a strong indication that an ASTM standard test method is used for measuring the gloss is that ASTM standard test methods are used for the measurement of the other properties mentioned in the patent in suit, such as the coefficient of friction (paragraph [0117]), the density (paragraph [0118]), the melt flow rate (paragraph [0121]), the seal strength (paragraph [0124]) and the hot tack performance (paragraph [0131]). Furthermore, D15, which is cited in the patent in suit (page 2, line 57) and D7, which is owned by the same corporate applicant as the present applicant, refer to the use of the ASTM D 2547 for measuring gloss values. Also, D17 (last page, table) recommends ASTM D 2457 for measuring the gloss of plastic film surfaces. A similar disclosure can be

found in D18 (last page), which refers to "ASTM D 2457 Standard Test method for Specular gloss of Plastic Films".

- 2.5.2 The appellant argued that other standard methods were known for measuring gloss, such as DIN 67 530, the method required in D12. It was uncontested that other methods of measurement existed. However, this does not invalidate the above finding that in the present case there are strong pointers which would lead the skilled person towards ASTM D 2547.
- 2.5.3 Thus, the skilled person, based on the disclosure of the patent in suit considered in its entirety and his common general knowledge, would consider that the standard test method for measuring the gloss parameter of the claimed coated biaxially oriented film is ASTM D 2457.
- 2.6 What remains to be assessed is which incidence angle the skilled person would apply when using the standard test method ASTM D 2457 to measure the gloss of plastic films.
  - 2.6.1 According to D16, incidence angles of 20°, 45° and 60° 75° may be used for the measurement of gloss of plastic films, both opaque and transparent, in the ASTM D 2457 standard test method (page 571, point 1.1). More specifically, 20° is recommended for high-gloss films, 45° is recommended for intermediate and low-gloss films, and 60° is recommended for intermediate-gloss films.
  - 2.6.2 A first indication that the skilled person would select an angle of incidence of 45° for a plastic film can be found in D7, D14 and 15 which all employ an angle of

incidence of 45° for film having a gloss of 80% or higher (D7: column 6, lines 38-39 and tables 1-4, D14: column 4, line 15 and D15: column 4, line 20). Such an angle is also indicated for films in D17 (bottom of the last page).

2.6.3 Furthermore, to establish whether 45° is the correct angle, as confirmed by P11, the skilled person could reproduce the films exemplified in the patent in suit. Although the opposition pointed to this approach in the decision under appeal (reasons 3, last penultimate paragraph), the appellant has not provided any evidence that this approach would fail.

2.7 Furthermore, as the respondent correctly mentioned, the appellant, which bears the burden of proof did not file any evidence to show that it was not possible to prepare the claimed coated biaxially oriented films with a gloss greater than 80% using the disclosure of the patent in suit and the skilled person's common general knowledge. The three late-filed documents submitted by the appellant with its letter of 23 October 2018 are irrelevant, since they solely demonstrate the existence of matte films.

2.8 In view of the above, the invention underlying the claims as granted is sufficiently disclosed for it to be carried out by a person skilled in the art.

### **3. Inventive step**

3.1 Independent claim 1

3.1.1 Closest prior art

The patent in suit relates to coated oriented films for consumer packaging (paragraph [0001]).

D12 relates to a method for producing coated biaxially oriented films, in particular films which are suitable for packaging purposes (abstract; column 1, lines 8-22), which uses a dispersion to form the coating. Thus, D12 is in the same technical field as the patent in suit and has the most features in common with the claimed method. It is therefore reasonable to consider that it represents the closest prior art for the assessment of inventive step.

Reference was also made to D7 as the possible closest prior-art document. D7 relates to a method for producing coated biaxially oriented films but does not disclose that a dispersion is used to form the coating. Although D7 is in the same technical field as the patent in suit, it has less features in common with the claimed method. Thus it is not considered the closest prior-art document.

For the assessment of inventive step, example 1 of D12 is the most relevant disclosure. It describes the method steps defined in claim 1 as granted for producing a coated biaxially oriented film (column 11, line 40 to column 12, line 23). According to this example, a three-layer film ABC (outer layer A/base layer B/outer layer C) is oriented longitudinally, i.e. said film is oriented in a first direction to provide an uniaxially oriented film (column 11, lines 59-60). The film is further coated with a dispersion composed of a solution of a latex made from a copolymer of 60% by weight of methylacrylate, 35% by weight of ethyl acrylate, and 5% by weight of N-ethylolacrylamide, together with a surfactant, to produce a coated

uniaxially oriented film (column 11, line 59 to column 12, line 1). The longitudinally stretched and coated film is then stretched transversely at a temperature of 85 to 135°C, i.e. said film is oriented in a second direction to provide a transparent three-layer film with an ABC structure (column 12, lines 3-6 and 18) having a gloss value of 175 and a haze value of 1.8% (table 3).

The method of claim 1 differs from example 1 of D12 merely in that it uses a polyolefin dispersion to form the coating instead of the acrylate dispersion used in D12.

### 3.1.2 Technical problem and its solution

The method disclosed in D12 provides coated films (compared with those of the prior art) with better mechanical properties such as anti-static performance, better slip, i.e. a lower coefficient of friction, good adhesion to printing inks and other possible functions, e.g. better cold-sealability (column 3, lines 35-40). These films also have better optical properties such as gloss and haze (column 8, lines 65-66).

The patent in suit does not contain any comparison of the films obtained by the claimed method with the films of D12. However, the technical evidence of the patent in suit (table 1, examples 1-12) shows that the claimed method provides coated biaxially oriented films with a good balance of mechanical properties (such as adhesion) and optical properties (such as haze and gloss). In particular, paragraph [0141] states the following:

"The finished film was very clear and glossy. The heating effect from the TD oven also gave greatly improved coating adhesion to the OPP base film".

The appellant argued that a good balance of mechanical and optical properties depended on the nature of the base film and not on the coating. However, this argument is not convincing. As can be seen from table 1 in the patent in suit, the coating provides a good sealability, which is a desirable property of biaxially oriented films used for consumer packaging. Thus, comparative examples C3 to C6, which were not coated, show acceptable haze and gloss but have no ability to seal.

It is plausible that the good balance of mechanical and optical properties is obtained across the entire scope of claim 1. The appellant, which bears the burden of proof, did not submit any evidence to substantiate its assertions.

In view of the above, the technical problem underlying the subject-matter of claim 1 in view of D12 consists in the provision of an alternative method for producing a coated biaxially oriented film which has a good balance of mechanical properties and optical properties.

### 3.1.3 Obviousness

The issue of obviousness boils down to whether the skilled person starting from the method of D12 and looking for an alternative method for producing a coated biaxially oriented film which has a good balance of mechanical and optical properties would be motivated by the cited prior art to replace the polyacrylate



dispersion of D12 with a polyolefin dispersion as required by claim 1.

The appellant asserted that the skilled person would be motivated by D8, D13 or D14 because these documents disclose that polyester and polyolefin dispersions could be interchangeably used as coating, or that at least there was no bar against the replacement of the one by the other.

The board, however, does not agree.

D8 concerns aqueous dispersions including at least one thermoplastic resin, at least one dispersing agent and water (abstract; claim 1). Paragraph [0042] discloses a list of examples of suitable thermoplastic resin, including polyolefins and polyacrylates. As regards the properties of the coated substrates, paragraph [0093] discloses that some embodiments of the dispersions described are capable of forming a coating which provides the substrate with heat sealability (lines 4-10). D8 does not disclose which embodiments these are and, contrary to the appellant's assertions, the skilled reader would not conclude that a polyolefin dispersion is equivalent to and thus interchangeable with a polyacrylate dispersion based on their mechanical properties (heat sealability). Moreover, D8 does not disclose any optical property of the coated substrates. With regard to the substrates, D8 discloses paper, fiber, wood, metal or plastic molded articles (paragraph [0093]). D8 does not disclose that the aqueous dispersions are suitable for use in coating biaxially oriented films, let alone applying such dispersions between two orientation step of the films. Thus, the skilled person would not be motivated by D8 to replace the polyacrylate dispersion in the method of

D12 with a polyolefin dispersion with the expectation of obtaining a biaxially oriented film with a good balance of mechanical and optical properties. The combination of D8 with D12 is the mere result of an inadmissible *ex post facto* analysis which draws on the knowledge of the invention.

D13 relates to a coated polymer film with release properties (abstract; paragraph [0020]). The film includes a self-supporting polymer film and a release coating on the film layer. The release coating is an aqueous dispersion comprising a polyolefin wax and a cross-linkable acrylic (claims 1-3). The coating is typically applied on the base polymer film prior to stretch orientation of the film (paragraph [0054]). D13 does not disclose that a polyolefin dispersion is interchangeable with a polyacrylate dispersion, Thus D3 would not motivate the skilled person seeking to make a coated biaxially oriented film with a good balance of mechanical and optical properties to use as coating a polyolefin dispersion instead of the polyacrylate dispersion of D12, let alone to apply the coating between the orientation steps. Thus, the alleged obvious combination of D13 with D12 is also based on an *ex post facto* analysis.

D14 relates to a slip-coated biaxially oriented film structure with low haze, excellent non-blocking properties and a consistently low coefficient of friction, in which the slip-coating is essentially an aqueous wax emulsion or dispersion applied to the base layer between the machine direction orientation and the transverse direction orientation (abstract; column 1, lines 8-11; column 2, lines 44-47; column 3, lines 24-29). The wax in the emulsion or dispersion can be carnauba wax, paraffin wax, polyethylene wax,

microcrystalline wax or their blends (column 2, lines 32-35). D14 does not disclose that the (polyolefin) wax is interchangeable with a polyester component and thus would not motivate the skilled person to replace the polyacrylate dispersion used in D12 with the polyolefin wax emulsion or the dispersion of D14 to obtain a coated biaxially oriented film with a good balance of mechanical and optical properties. Thus, the alleged obvious combination of D14 with D12 is also based on an *ex post facto* analysis.

3.1.4 In summary, the subject-matter of claim 1 is not obvious from the cited prior art.

3.2 Independent claim 6

This claim concerns a method for producing a coated biaxially oriented film (see point I above) which also differs from the disclosure of D12 as regards the chemical nature of the coating dispersion. For the reasons set out regarding the subject-matter of claim 1, the method of claim 6 also involves an inventive step.

3.3 Independent claim 10

This claim concerns a coated biaxially oriented film, which according to the appellant can be seen as the product obtained by the method of claim 6. Since the method of claim 6 involves an inventive step, in particular the application of a polyolefin dispersion as a coating between the orientation steps, the product obtained by this method also involves an inventive step.

3.4 Dependent claims

Dependent claims 2 to 5 and 7 to 9 concern preferred embodiments of independent claims 1 and 6 and therefore involve an inventive step *mutatis mutandis*.

4. In view of the above, the claims as granted are patentable.
5. Since the main request is patentable, any discussion on the patentability of the auxiliary requests is moot.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



M. Cañueto Carbajo

W. Sieber

Decision electronically authenticated