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**Datasheet for the decision
of 14 May 2008**

Case Number: T 1321/05 - 3.3.09

Application Number: 97902947.7

Publication Number: 0883658

IPC: C09J 133/08

Language of the proceedings: EN

Title of invention:

Graphic marking film comprising pressure sensitive adhesive

Patentee:

MINNESOTA MINING AND MANUFACTURING COMPANY

Opponent:

AVERY DENNISON CORPORATION

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 123(3)
EPC R. 80

Relevant legal provisions (EPC 1973):

EPC R. 57(a)

Keyword:

"Main request: Novelty (no)"

"Auxiliary requests 1, 2, 4, 5: inventive step (no)"

"Auxiliary request 3: extension of scope (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 1321/05 - 3.3.09

D E C I S I O N
of the Technical Board of Appeal 3.3.09
of 14 May 2008

Appellant:
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office orally
announced 13 July 2005 and posted 20 September
2005 concerning maintenance of European patent
No. 0883658 in amended form.

Composition of the Board:

Chairman: P. Kitzmantel
Members: W. Ehrenreich
W. Sekretaruk

Summary of Facts and Submissions

- I. Mention of the grant of European patent No. 0 883 658 in respect of European patent application No. 97 902 947.7 filed on 16 January 1997 as International application PCT/US97/00626 (WO 97/31077) in the name of *Minnesota Mining and Manufacturing Company* was announced on 15 November 2000 (Bulletin 2000/46).
- II. The patent, entitled "*Graphic marking films comprising pressure sensitive adhesive*" was granted with eleven claims. Claims 1 and 11 read as follows:
- "1. A graphic marking film comprising:
- (a) a film sheet having first and second surfaces; and
- (b) an acrylate copolymer pressure sensitive adhesive system applied to one of the first and second surfaces, the acrylate copolymer pressure sensitive adhesive composition comprising:
- (i) 100 parts by weight of an acrylate copolymer pressure sensitive adhesive comprising:
- 1) from 70-98% by weight of one or more monofunctional acrylates having nontertiary alkyl groups with between 1 and 14 carbon atoms; and
- 2) from 30-2% by weight of a polar monomer;
- (ii) 1-10 parts dry weight of a plasticizer; and
- (iii) optionally, a crosslinking agent for the adhesive."

"11. A method of applying the graphic marking films of any of claims 1-10 to a surface at a temperature below 40°F (4.4°C).

Claims 2 to 10 were, either directly or indirectly, dependent on Claim 1.

III. On 15 August 2001 opposition against the patent was filed by

Avery Dennison Corporation.

The opposition was based on the opposition grounds according to Articles 100(a) and 100(b) EPC.

The Opponent requested revocation of the patent in its entirety because the subject-matter claimed was not novel and lacked an inventive step (contrary to Articles 54 and 56 EPC) and the invention was insufficiently disclosed (contrary to Article 83 EPC).

The Opponent based its objections as to lack of novelty and lack of inventive step *inter alia* on the following documents:

D1 US-A 4 985 488
D2 US-A 5 049 608
D6 US-A 5 229 207.

Furthermore, the Opponent alleged that the four products "FasCal 900 Containerfilm", "FasCal 1900 SST Repositionable Construction", "FasCal 4900-AP Construction" and "FasCal CT-5900" comprising a film sheet and a pressure sensitive adhesive system as

claimed were available on the market before the effective priority date of 26 February 1996. Numerous exhibits marked "B", "E" and "N" were filed as evidence.

IV. The Patent Proprietor defended the patent as granted and filed, with the letter dated 27 September 2004, sets of claims as bases for auxiliary requests 1 to 6.

In the oral proceedings before the Opposition Division, which were held on 13 July 2005, the Proprietor submitted an amended auxiliary request 1 consisting of twenty six claims. The set of claims according to this request differed considerably from the granted claims in that two new independent Claims 9 (with Claims 10 to 17 dependent thereon) and 18 (with Claims 19 to 26 dependent thereon) were added.

Claim 1 of the amended auxiliary request 1 corresponded to Claim 1 as granted with the amendment

- that the film sheet was limited to "a film sheeting selected from the group consisting of plasticized flexible polyvinyl chloride, polyacrylates, polyurethanes, perfluoropolymers, polycarbonates and retroreflective sheeting" and
- that the plasticizer was limited to a plasticizer "selected from the group consisting of polyoxyethylene aryl ethers, adipate esters, 2-ethylhexyl diphenyl phosphate, t-butylphenyl diphenyl phosphate, toluene sulfonamide, dipropylene glycol dibenzoate, polyethylene glycol dibenzoate, polyoxypropylene aryl ethers, and dibutoxyethoxyethyl formate".

Claim 9 was directed to a method of applying a graphic marking film to an irregular surface, wherein the film sheeting and the plasticizer were limited as in Claim 1 above.

Claim 18 was directed to a graphic marking film bonded to a vehicle,

- wherein the film sheeting was unlimited, as in Claim 1 as granted and
- wherein the plasticizer was limited as in Claim 1 above.

V. With its interlocutory decision announced in the oral proceedings and issued in writing on 20 September 2005, the Opposition Division maintained the patent on the basis of the above amended auxiliary request 1.

The main request was considered to be not allowable because, in the Opposition Division's view, the subject-matter of Claim 1 as granted lacked novelty over D1.

As regards amended auxiliary request 1, its subject-matter was considered to be new, inter alia over D2, because the list of plasticizers was not disclosed in this document.

The Opposition Division also acknowledged inventive step of this subject-matter over a combination of D2 as the closest prior art and D6. In its view, the problem to be solved according to D2, namely to overcome blistering and film lifting, was different from the problem to be solved according to the invention, and D6 did not disclose the claimed plasticizers as a component of an adhesive system.

There was also no reason to combine D2 with other documents, like D1, in order to arrive at the low temperature effect of the claimed graphic marking film demonstrated in the patent with the polyoxyethylene aryl ether plasticizer Pycal® 94.

The alleged prior public use was considered to be not relevant.

The Opposition Division also acknowledged that the invention claimed in amended auxiliary request 1 was sufficiently disclosed in accordance with Article 83 EPC.

Furthermore, the limitation of the film sheeting/plasticizer and the addition of the new Claims 9 and 18 were considered allowable under Articles 123(2) and 123(3) EPC.

VI. Appeals against the decision of the Opposition Division were filed:

- by the Opponent on 15 August 2005 (ie before issuance of the decision in writing); - the Statement of the Grounds of Appeal was filed on 25 January 2006;
- by the Patent Proprietor on 28 November 2005; - the Statement of the Grounds of Appeal was filed on 30 January 2006.

VII. The Appellant/Opponent reiterated its objections as to lack of novelty, lack of inventive step and insufficiency of disclosure and further submitted that Claims 18 to 26 of the claim-set as allowed by the Opposition Division lacked clarity, contrary to Article 84 EPC, extended the scope of the patent,

contrary to Article 123(3) EPC, and were not occasioned by an opposition ground, contrary to Rule 57(a) EPC 1973 (corresponding to Rule 80 EPC). Furthermore, the objection was raised that the introduction of the list of plasticizers into Claim 1 was an amendment which had no support in the application as filed, contrary to Article 123(2) EPC.

VIII. The Appellant/Proprietor defended, as a main request, the patent as granted, alternatively maintenance of the patent on the basis of auxiliary request 1 as allowed by the Opposition Division, and filed, with its letter dated 18 September 2006, further sets of claims as bases for auxiliary requests 2 to 6.

In the oral proceedings held on 14 May 2008 the Appellant/Proprietor replaced auxiliary requests 1 to 6 by new auxiliary requests 1 to 5, after the Board had expressed its opinion that a number of amendments to the claims were not occasioned by an opposition ground, contrary to Rule 80 EPC.

Claim 1 according to the new auxiliary request 1 reads as follows:

- "1. A graphic marking film comprising:
- (a) a film sheeting selected from the group consisting of plasticized flexible polyvinyl chloride, polyacrylates, polyurethanes, perfluoropolymers, polycarbonates and retroreflective sheeting, the film sheeting having first and second surfaces; and
 - (b) an acrylate copolymer pressure sensitive adhesive system applied to one of the first and second

surface, the acrylate copolymer pressure sensitive adhesive composition comprising:

- (i) 100 parts by weight of an acrylate copolymer pressure sensitive adhesive comprising:
 - 1) from 70-98% by weight of one or more monofunctional acrylates having nontertiary alkyl groups with between 1 and 14 carbon atoms; and
 - 2) from 30-2% by weight of a polar monomer;
- (ii) 1-10 parts dry weight of a plasticizer; and
- (iii) optionally, a crosslinking agent for the adhesive,

wherein the plasticizer is selected from the group consisting of polyoxyethylene aryl ethers, adipate esters, 2-ethylhexyl diphenyl phosphate, t-butylphenyl diphenyl phosphate, toluene sulfonamide, dipropylene glycol dibenzoate, polyethylene glycol dibenzoate, polyoxypropylene aryl ethers, and dibutoxyethoxyethyl formate."

Independent Claim 9 of this request is directed to a method of applying a graphic marking film comprising applying the graphic marking film to an irregular surface at a temperature below 4.4°C (40°F). The graphic marking film is characterized as in Claim 1.

Auxiliary request 2 differs from auxiliary request 1 in that the crosslinking agent (iii) is mandatory.

Claim 1 of *auxiliary request 3* is directed to a graphic marking film bonded to a vehicle. The graphic marking film is characterized as in auxiliary request 1 except that the film sheeting material is not limited.

Claim 1 of *auxiliary request 4* corresponds to Claim 1 of *auxiliary request 1* with the amendment that the following feature has been added at the end of the claim: "*wherein the plasticizer-modified acrylic copolymer adhesive permits the application of the graphic marking film at a surface at a temperature as low as -1°C (30°F)*".

Claim 1 of *auxiliary request 5* is directed to the use of a film as graphic marking film for vehicles. The film is characterised as in Claim 1 of *auxiliary request 2*, ie the crosslinking agent (iii) is mandatory.

For the reasons set out below these newly amended requests were admitted into the proceedings.

- IX. In the oral proceedings, the essential points of discussion were:
- (a) novelty of the subject-matter according to the main request vis-à-vis D1 or D2;
 - (b) inventive step of the subject-matter according to auxiliary requests 1, 2, 4 and 5 with regard to a combination of D2 with D6;
 - (c) lack of clarity of the claims according to auxiliary request 3 and extension of the scope of protection by the claims;
 - (d) allowability of the limitation of the plasticizer (ii) within the provisions of Article 123(2) EPC.

A final decision on point (d) was not taken because this issue had no influence on the outcome of the

proceedings. Discussion of this point in the following is therefore unnecessary.

Furthermore, the need to consider the Opponent's alleged prior public use based on the exhibits "B", "E" and "N" did not arise because, as will be shown below, none of the requests was allowable in view of the prior art represented by D1, D2 and D6 (main request, auxiliary requests 1, 2, 4, 5) or for formal reasons (auxiliary request 3).

- X. The arguments of the Appellant/Opponent as regards points (a) to (c) above may be summarised as follows:

Main Request - Novelty (point (a))

A tape with a base sheet and an acrylate copolymer pressure sensitive adhesive system including a dioctyl phthalate (DOP) plasticizer, as set out in Claim 1, was disclosed in D1. According to column 4, lines 63 to 67 the adhesion of the tape to a decorative trim strip was tested. This implied that graphic markings could be made on top of the tape.

D1 was therefore novelty-destroying for the subject-matter of Claim 1.

D2 disclosed pressure sensitive adhesive sheets with a base sheet and a pressure-sensitive acrylate copolymer adhesive composition including an alkylphenoxy poly(ethyleneoxy) ethanol surfactant on one surface of the sheet. The acrylate copolymer contained desirably a polar comonomer in amounts of 5 to 20 wt.% and met the requirements (b)(i)(1) and (2) of Claim 1. The surfactant which was present in amounts as set out in

feature (b)(ii) acted as a plasticizer under bond formation conditions. The sheet was inter alia suitable for paper label applications, which implied that the sheet surface could depict information in the form of graphic markings.

Therefore, D2 also anticipated the subject-matter of Claim 1.

Auxiliary Requests 1, 2, 4, 5 - Inventive Step (point (b))

The closest prior art for the subject-matter of these requests was represented by D2.

The film according to Claim 1 of *auxiliary request 1* differed from the adhesive sheet described in D2 only by a specific film sheeting material. It was, however, known from D2 itself that synthetic resins were commonly used as film backing material and the specific backing resins as defined in Claim 1 were for instance disclosed in D6, column 3, lines 38 to 41.

Because no technical effect, caused by the specific film sheeting, was shown, the claimed subject-matter lacked an inventive step over a combination of D2 with D6.

Likewise, it was common general knowledge for a skilled person to crosslink acrylate-based pressure sensitive adhesives as required by Claim 1 of *auxiliary request 2*. This was inter alia indicated in D6, column 1, lines 52 to 56.

Thus, a combination of D2 with D6 also rendered the subject-matter of Claim 1 of *auxiliary request 2* obvious.

The additional feature in Claim 1 of *auxiliary request 4* that the plasticizer-modified acrylic adhesive permits the application of the claimed film at low surface temperatures was already disclosed in D2. Thus, the same observations made with regard to *auxiliary request 1* also applied for the subject matter of *auxiliary request 4*.

Claim 1 of *auxiliary request 5* pertained to the use of the film as graphic marking film for vehicles. The use of the paper labels according to D2 for adhering them to stainless steel at low temperatures was disclosed in example 1. Therefore, a skilled person starting from D2 was faced with the problem of finding a specific application for the pressure sensitive adhesive sheet. However, adhering a label to a vehicle and modifying the sheeting material in accordance with D6 was a matter of routine for a skilled person.

Auxiliary request 3 - Lack of clarity/Extension of scope (point (c))

Claim 1 of *auxiliary request 3*, which was directed to a graphic marking film bonded to a vehicle lacked clarity, contrary to Article 84 EPC, because it was not clear whether protection was sought for a film or a vehicle. In the latter case, an extension of the scope of the patent occurred, contrary to Article 123(3) EPC, because an *aliud* was claimed.

XI. The counter-arguments of the Appellant/Proprietor as to points (a) to (c) were as follows:

Main Request - Novelty (point (a))

The subject-matter according to Claim 1 was novel over D1 and D2 in that these documents did not disclose graphic marking films in the sense of the teaching of the patent.

D1 disclosed an acrylate-based pressure sensitive adhesive with excellent adhesion to plasticized vinyl substrates. Adhesive tapes were prepared for evaluating the adhesion capacity of the PSA to various substrates, *inter alia* a decorative trim strip. However, D1 contained no disclosure that graphic markings could be made on the tape surface.

D2 was concerned with the field of the paper label industry and all relevant examples were concerned with paper labels. There was no disclosure in D2 that these labels were suitable for outdoor applications such as the provision of vehicles, like trucks or trailers, with graphic markings.

Auxiliary Requests 1, 2, 4, 5 - point (b)

When considering D2 representative of the closest prior art, the subject-matter of Claim 1 of *auxiliary request 1* differed from the labels according to D2 in that a specific polymeric film sheeting was used instead of a paper backing material.

The problem to be solved by this distinguishing feature was the avoidance of blistering due to entrapment of air and tenting around the areas of corrugations and rivets, especially on the surface of trucks or trailers. This problem could not be solved by the very stiff and inflexible paper backing material used for the labels according to D2.

There was no information in the prior art that would motivate a skilled person to combine a specific backing material with an acrylate adhesive component containing a specific plasticizer as claimed in order to solve the problem posed.

This situation was not changed when starting from D6 as the closest prior art. Although D6 disclosed an adhesive-backed film composite with a flexible sheeting and an acrylate adhesive component in accordance with Claim 1 for use on the surface of soft side truck coverings, the adhesive did not contain a plasticizer but rather required a heat-sensitive urethane latex as additional adhesive component, which was not foreseen in the PSA system of the claimed graphic marking film.

These arguments also applied to Claim 1 of *auxiliary request 4* which was further limited by the feature that the plasticized acrylic copolymer adhesive had to be suitable for low-temperature applications.

It was shown in example 4 of the patent specification that the presence of a crosslinker in the acrylate PSA composition, which was mandatory according to Claim 1 of *auxiliary request 2*, led to a considerable reduction of film shrinkage without affecting its low temperature application performance. This was not obvious from the prior art.

D6, disclosing the use of adhesive-backed polymeric films for decorating soft side coverings of trucks, was representative of the closest prior art for the use of the film as graphic marking film for vehicles as claimed in Claim 1 of *auxiliary request 5*.

However, the adhesive composition described in D6 differed from that according to Claim 1 in two essential aspects, namely the absence of a plasticizer and the mandatory presence of a heat-activable urethane latex adhesive.

There was, however, no indication in the prior art, especially D2, which would give an incentive to a skilled person to modify the adhesive system of the films according to D6 by adding a specific plasticizer and removing the urethane latex in order to render the films usable as marking films for vehicles.

Auxiliary Request 3 - point (c)

It was clear from the wording of Claim 1 that protection was sought for a graphic marking film. The objections of the Appellant/Opponent as to lack of clarity were therefore unfounded.

The way of drafting the claim, which was now directed to a film bonded to a specific surface, led to a restriction of the scope which did not violate Article 123(3) EPC.

XII. The Appellant/Patent Proprietor requested that the decision under appeal be set aside and the patent be maintained as granted, alternatively on the basis of one of the auxiliary requests 1 to 5 filed on 14 May 2008.

XIII. The Appellant/Opponent requested that the decision under appeal be set aside and the patent be revoked.

It further requested that the new auxiliary requests be not admitted into the proceedings.

Reasons for the Decision

1. The appeals are admissible.
2. *Admission of the new auxiliary requests 1 to 5 into the proceedings*

According to Article 13(1) of the Rules of Procedure of the Boards of Appeal any amendment to a party's case after it has filed its grounds of appeal may be admitted and considered at the Board's discretion. The discretion has to be exercised in view of *inter alia* the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.

Although the new sets of claims according to auxiliary requests 1 to 5 were submitted at a very late stage, indeed during the oral proceedings before the Board, they merely differ from those of the old requests by the deletion of certain claims taking account of deficiencies discussed in the proceedings. This deletion leads to a simplification of the claimed subject-matter rather than to a more complex situation and does not affect the procedural economy. The Board, therefore admits the requests into the proceedings.

3. *Novelty - Subject-matter of the Main Request*

Claim 1 is directed to a graphic marking film which is characterized by a (non-specified) film sheet (a) and a specific acrylate pressure sensitive adhesive system (b) containing a plasticizer and being applied to one of the surfaces of the film sheet (a).

The feature "graphic marking film" implies that any graphic information, either in the form of a picture or in writing, can be applied on top of the second film surface opposite the adhesive layer.

D2 discloses a pressure-sensitive adhesive sheet for use at low temperatures comprising:

- (a) a film sheet of *inter alia* paper or synthetic resin; and
- (b) an acrylate copolymer pressure sensitive adhesive system coated on one surface of the sheet in emulsified form;

(D2, column 2, line 63 to column 3, line 5).

The adhesive system (b) is composed of:

- (i) an acrylate copolymer comprising:
 - 40 to 97 wt.% of 2-ethylhexyl acrylate and
 - desirably 5 to 20 wt.% of a polar comonomer, such as vinyl acetate or acrylonitrile; and
- (ii) 3 to 9 wt.% of a C₇-C₁₈ alkylphenoxy poly(ethyleneoxy) ethanol nonionic surfactant which acts as a plasticizer under bond formation conditions;

(Column 2, lines 13 to 29 and lines 36 to 58).

The plasticizer belongs to the class of polyoxyethylene aryl ethers and, based on 100 parts by weight of the acrylate copolymer, amounts to 3.1 to 9.9 parts by weight.

As disclosed in column 3, lines 6 to 14 and as exemplified in examples 1 to 3 of D2, the sheets, at least those with a paper backing, are used as labels. The term "label" implies conveying information which has been applied in graphic form on top of the label.

D2 therefore anticipates the subject-matter of Claim 1.

Thus the main request is not allowable.

Inventive step - Auxiliary Requests 1, 2, 4, 5

4. *The patent in suit*

The patent is concerned with a graphic marking film containing an acrylate pressure-sensitive adhesive system on one surface of the film sheet. The film has in particular improved low-temperature tack at temperatures below 4.4°C, when applied for instance on the surfaces of vehicles, like trucks and trailers (patent specification, paragraphs [0001], [0007], [0008] and [0054]).

The films were tested in several aspects in order to assess their shrinkage properties and to evaluate their ability to avoid blistering (due to entrapment of air) and tenting (film bridging around rivet heads and in the valleys of corrugations occurring on vehicle surfaces) (paragraphs [0058] to [0060]).

In accordance with auxiliary requests 1, 2 and 4 a graphic marking film is provided which is characterized by two essential elements:

- a film sheeting having first and second surfaces, which is selected from a group consisting of a specific polymeric material, *inter alia* a polyurethane or a plasticized flexible polyvinyl chloride;
- a pressure sensitive acrylate adhesive system essentially composed of
 - (i) an acrylate copolymer adhesive and
 - (ii) a plasticizer selected from a group of commercial products, for instance those belonging to the class of polyoxyethylene aryl ethers, which is represented in the patent by Pycal®94, the most preferred plasticizer of the claimed invention.

According to Claim 1 of *auxiliary request 1* the adhesive system optionally contains a crosslinking agent (iii).

According to *auxiliary request 2* the presence of the crosslinking agent (iii) is mandatory.

Claim 1 of *auxiliary request 4* requires that the plasticizer-modified acrylate adhesive permits the application of the graphic marking film to a surface at temperatures as low as -1°C.

Claim 1 of *auxiliary request 5* limits the invention to the use of the film as a graphic marking film for vehicles.

5. *The closest prior art*

In the Board's judgment, D2 is representative of the closest prior art for the subject-matter of all of the above requests.

As set out under point 3 above, D2 discloses an acrylate pressure-sensitive (PSA) adhesive sheet for low-temperature applications with an alkylphenoxy (polyethyleneoxy) ethanol surfactant/plasticizer as part of the adhesive system and a film sheeting selected *inter alia* from paper or synthetic resins (column 2, line 37 to column 3, line 14). D2 refers in column 3, lines 6 to 14 to the superior low-temperature performance and good room-temperature shear of the PSA composition which makes it suitable for paper label applications, ie sheets which provide graphic markings on one surface, and other applications.

6. *Inventive step of the subject-matter of auxiliary requests 1 and 4*

6.1 The problem to be solved

The graphic marking film claimed in Claim 1 of *auxiliary request 1* differs from the label according to D2 by the selection of the film sheeting from a specific polymeric material, like polyurethane or plasticized vinyl.

The Appellant/Proprietor argued that D2 was not a suitable starting point for the assessment of inventive step because it was silent on the application of the labels to trailers and on the problem of tenting and blistering when applied to surfaces at low temperatures, which could be avoided according to the invention by the combination of the adhesive system with a specific sheet material. This argument cannot, however, be accepted.

It has to be pointed out in this context that the Claims 1 of these two requests do not restrict the invention to the use of the graphic marking films for surfaces of vehicles. Any such reference is therefore beside the point. Furthermore, no evidence was provided that the advantage of reduced blistering was due to the presence of the specified sheet materials, ie the feature distinguishing the invention from D2.

To the contrary, a comparison of example 1 - which constitutes a control example without plasticizer in the adhesive system - with examples 2 and 3 rather demonstrates that the suppression of blistering is related to the presence of the polyoxyethylene aryl ether plasticizer Pycal®94 and not to the use of a PVC sheet material.

Therefore, the problem objectively underlying this subject-matter is merely seen as the provision of graphic marking films with an alternative sheet material.

6.2 Obviousness

The use of a sheeting, like plasticized PVC or polyurethane for decorative applications of pressure-sensitive sheets making use of an acrylate copolymer adhesive is, however, already disclosed in D6. See Claim 1 in conjunction with column 1, lines 62 to 65 and column 3, lines 38 to 46. It is in particular pointed out in column 3, lines 43 to 46 that plasticized vinyl backings are widely used in the graphics industry.

A skilled person being aware of D6 would therefore be motivated to replace the paper backings of the labels according to D2 by polymeric backings, in particular plasticized PVC for which D6 discloses its suitability for graphic applications. This all the more so as D2 recommends synthetic resins as alternative backing materials (column 2, line 65 to column 3, line 1).

The relevance of the information in D6 concerning the suitability of polymeric films as film sheetings is not invalidated by the different adhesive system used in this document because the latter feature is separate and does not affect the criteria for choosing an appropriate sheet material.

The subject-matter of Claim 1 of auxiliary request 1 is therefore rendered obvious by a combination of D2 with D6.

The same applies to Claim 1 of auxiliary request 4 because the additional feature, that the plasticizer-modified acrylic copolymer adhesive permits the

application at surface temperatures as low as -1°C , is already a feature of the plasticized adhesive described in D2 (column 1, lines 14 to 21 in conjunction with examples 1 to 3).

Auxiliary requests 1 and 4 are therefore not allowable.

7. Inventive step of the subject-matter of auxiliary request 2

In addition to Claim 1 of auxiliary request 1, the adhesive system according to Claim 1 of auxiliary request 2 contains a crosslinking agent (iii) as mandatory component.

In this context, the Appellant/Proprietor argues with reference to paragraphs [0030] and [0074] of the patent specification that crosslinking of the adhesive composition leads to a significantly reduced shrinkage of the film, which was not obvious from the prior art.

The Board cannot accept this argument. It is common general knowledge of a skilled person that the dimensional stability of polymeric systems can be increased by incorporating a crosslinking agent, which forms a linkage between individual polymer chains, thereby creating a three-dimensional polymeric network. Such a rigid network automatically reduces the tendency of the polymer to shrink.

Furthermore, the patent specification itself indicates in paragraphs [0030] and [0058] that it is usual to incorporate a crosslinker into the PSA in order to increase its "shear or cohesive strength", which can be assessed via a shrinkage test as "an indirect measure

of the shear resistance (internal strength) of the adhesive".

A skilled person intending to reduce shrink would therefore consider incorporating a crosslinking agent into the adhesive composition.

The subject-matter of Claim 1 of auxiliary request 2 therefore lacks an inventive step over a combination of D2 with D6 in conjunction with the general common knowledge of a skilled person.

Auxiliary request 2 is therefore not allowable.

8. Inventive step of the subject-matter of auxiliary request 5

According to Claim 1 of this request the film is exclusively used as graphic marking film for vehicles.

When starting from D2 as the closest prior art the problem to be solved is therefore seen in providing a label with a polymeric backing material for an alternative application.

In view of D6, disclosing that PSA films with decorative backings made of polyurethane or plasticized vinyl can be used as covering for soft sides of trucks (column 1, line 62 to column 2, line 9), the skilled person would also contemplate the use of the labels according to D2 for this purpose, after modification of the backing in accordance with D6.

The skilled person would therefore arrive at the use in accordance with Claim 1 without any inventive effort.

Auxiliary request 5 is therefore not allowable.

Extension of scope (Article 123(3) EPC) - Auxiliary Request 3

9. According to Claim 1 as granted the film is characterised

- by its suitability for graphic markings;
- by its composition, namely of a film sheet and a specific acrylate PSA system;

but not by the substrate to which the film is bonded.

By the incorporation of the feature into Claim 1 of auxiliary request 3 that the film is bonded to a vehicle, its subject-matter is altered to relate to a film in association with a vehicle. In the Board's judgment, this combination of two physical entities - the film on the one hand and the vehicle on the other - constitutes a new physical entity different from the precursor-entities, ie different from the film constituting the subject-matter claimed by the granted patent.

For the above reasons, Claim 1 of auxiliary request 3 seeks protection for subject-matter not covered by the scope of the patent in suit, ie an *aliud*, contrary to Article 123(3) EPC.

Auxiliary request 3 is therefore not allowable.

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

G. Röhn

P. Kitzmantel