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D E C I S I O N
of 4 July 2000

Case Number: T 0755/97 - 3.2.3

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Title of invention:
Dry paint transfer process and product

Patentee:
AVERY DENNISON CORPORATION

Opponent:
Rexham Industries Corporation

Headword:

-

Relevant legal provisions:
EPC Art. 54(3)

Keyword:
"Novelty - prior European application"

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Case Number: T 0755/97 - 3.2.3

D E C I S I O N
of the Technical Board of Appeal 3.2.3
of 4 July 2000

Appellant: Rexham Industries Corporation
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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office dated 15 April
1997, posted on 25 April 1997, concerning
maintenance of European patent No. 0 352 298 in
amended form.

Composition of the Board:

Chairman: C. T. Wilson
Members: F. Brösamle
M. Aúz Castro

Summary of Facts and Submissions

I. With decision of 15 April 1997, posted on 25 April 1997, the opposition division maintained European patent No. 0 352 298 as amended on the basis of claims 1 to 25, claims 2 to 18 thereof as granted and claims 1 and 19 to 25 filed on 15 April 1997, by which, according to the opposition division's findings the objection of novelty of the subject-matter of the patent was met.

II. The independent claims 1 and 19 read as follows:

"1. A process for making a motor vehicle body panel (130) comprising a supporting molded plastic substrate (118) having a coating (44) laminated to the substrate and conforming to its outer surface, in which the coating (44) comprises a transparent synthetic resinous outer film, and in which:

a) a backing sheet (72) is adhered to the film to form a laminate (70),

b) the laminate (70) is thermoformed into the shape of the body panel,

c) the thermoformed laminate (116) is placed in a mold with the backing sheet (72) facing away from the molding surface of the mold, and

d) a moldable polymer is introduced into the mold and adhered to the backing sheet (72) and molded to the shape of said vehicle body panel (130) with the moldable material providing said supporting substrate (118) and the coating (44) providing an outer coating surface of the body panel (130), **characterized in that:**

i) A transparent outer clear coat (45) of a weatherable polymer is cast on a casting sheet

(42) and dried;

ii) a pigmented exterior automotive color coat (46) is formed on the clear coat (45) in dry film form so as to be visible through the clear coat (45);

iii) the dried clear coat (45) and color coat (46) forming said coating being a thermoformable composite exterior automotive paint coat (44) which is transferred and bonded to said semirigid polymeric backing sheet (72), in which the clear coat (45) forms the exterior surface of the transferred composite paint coat (44), and the color coat (46) is bonded between the clear coat (45) and the face of the backing sheet (72), and the casting sheet (42) is removed from the transferred paint coat (44), the exterior clear coat surface of the paint coat (44) having exterior automotive gloss and distinctiveness-of-image levels transferred to it from its previous contact with the casting sheet (42);

iv) the backing sheet (72) and the composite paint coat (44) thereon are thermoformed to form a three dimensionally shaped preformed laminate (116); and

v) the preformed laminate (116) is placed in a mold and a synthetic resinous substrate material is injected into the mold to bond to the backing sheet (72) and form an exterior vehicle body panel (130) with a finished exterior automotive quality paint coat (44) adhered to its contoured outer surface, the backing sheet (72) having sufficient thickness and sufficient elongation to absorb defects

present in the material of the supporting substrate (118) to retain an essentially defect-free surface on the clear coat (45) following adherence of the laminate to the substrate material, thereby forming a glossy, durable, defect-free exterior automotive quality paint coat (44) with a distinctiveness-of-image of at least 60% on the contoured outer surface of the finished vehicle body panel (130)."

- "19. An exterior motor vehicle body panel comprising a supporting substrate (118) having a three dimensionally shaped contoured surface and a laminate (70) comprising a flexible exterior automotive quality paint coat (44) adhered to the substrate (118) and conforming to its contoured surface, the paint coat (44) comprising a substantially transparent outer clear coat (45) and a pigmented color coat (46) on the undersurface of the outer clear coat (45) and visible through the clear coat (45),

characterized in that

the substrate (118) comprises a molded plastic exterior vehicle body panel the clear coat (45) consisting of a weatherable polymer overlying the pigmented color coat (46), the clear coat (45) comprising a thermoplastic and thermoformable polymeric material, the color coat (46) comprising a thermoplastic and thermoformable material with pigments dispersed in it, the clear coat (45) consisting from 50% to 70% polyvinylidene fluoride (PVDF) and from 30% to 50% acrylic resin, by

weight of the total PVDF and acrylic resin solids present in the clear coat, and in which the acrylic resin component comprises polymethyl methacrylate, polyethyl methacrylate, or mixtures thereof, including copolymers thereof, said laminate further comprising an intermediate shaped thermoformable polymeric backing sheet (72) between said paint coat (44) and said supporting substrate, the composite of the clear coat (45), the color coat (46) and the backing sheet (72) having been subjected to elongation during thermoforming with the clear coat forming a glossy, durable, defect free exterior automotive quality paint coat (44) having a distinctiveness-of-image greater than 60% on said contoured outer surface of the finished body panel (130) and in which said intermediate backing sheet (72) is provided having a sufficient thickness and sufficient elongation to prevent transfer of defects from the substrate material to the glossy surface of the outer clear coat (45)."

III. In its decision the opposition division came to the result that

(D1) EP-B-0 266 109

- claiming priority of 28 October 1986, being published on 4 May 1988, designating the Contracting States "AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE" and being a document to be considered under the terms of Article 54(3) EPC - is not a novelty destroying document with respect to the subject-matter of the above claims 1 and 19.

IV. Against this decision of the opposition division the opponent - appellant in the following - lodged an appeal on 4 July 1997 paying the fee on the same day and filing the statement of grounds of appeal on 5 September 1997. He argued that (D1) is a novelty destroying document with respect to the subject-matter claimed and inter alia filed affidavits to support his allegations.

V. Following the board's Communication pursuant to Article 11(2) RPBA dated 21 October 1999 oral proceedings were held on 4 July 2000 in which the appellant and the patentee - respondent in the following - with respect to claim 19 essentially argued as follows:

(a) appellant

- the exterior motor vehicle body panel according to claim 19 is known from (D1) if read by a skilled person;
- the clear coat and the colour coat thereof are also supported by a backing sheet in the form of a polymeric film;
- this film is able to act as a backing layer, to be elongated, to cover defects in a supporting substrate and to be thermoformed;
- since claim 19 specifies "elongation" of the backing sheet only by way of a functional feature and since from the article itself elongation of the backing sheet cannot be judged, (D1) is a novelty destroying document, see also the

affidavit of Mr Fields, remarks 11 and 12, since any laminate requires a semi-rigid sheet of a minimum thickness to be able to be laminated;

- claim 19 does not specify "semi-rigid" so that this property of the backing sheet cannot be seen as essential to the invention;
- summarizing, the patent cannot be maintained with claim 19 on file.

(b) respondent

- claim 19 is based on a preformed laminate which implies in combination with the task to act as a backing sheet a certain thickness and semi-rigidity thereof;
- the required function of the backing sheet to cover defects of the supporting substrate and the requirement of sufficient elongation thereof when being preformed and afterwards thermoformed necessitate a thickness of the backing sheet which is not derivable from (D1) and its disclosure of an adhesive film;
- since the known film cannot be interpreted by a skilled person not knowing the claimed invention as anything other than a means to adhere the clear and colour coat to a substrate this film is by far less thick than a semi-rigid and selfsupporting backing sheet as claimed;
- reference has to be made to Figure 1 of (D1) wherefrom it can be seen that the adhesive film

"13" is substantially thinner than the clear and colour coats "11" and "12" so that it is not justified to use the term "backing sheet" for the film "13"; under these circumstances the film known from (D1) is unable to allow the claimed elongation and a thermoforming step which are necessary to obtain a motor vehicle body panel of any wished configuration;

- the feature of claim 19 "comprising an intermediate shaped thermoformable polymeric backing sheet" implies not only a certain minimum thickness of the backing sheet but also the information of a "preformed" laminate as expressly derivable from claim 1;
- since (D1) is an Article 54(3) EPC - document any feature of claim 19 not being clearly anticipated by (D1) makes the subject-matter of claim 19 novel.

VI. The appellant requested that the decision under appeal be set aside and the European patent No. 0 352 298 be revoked.

VII. The respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Novelty*

2.1 (D1) has to be considered under the terms of

Article 54(3) EPC only since it is a non-prepublished document with respect to EP-A-0 352 298. Under these circumstances it has to be decided whether or not claim 19 is **fully** anticipated by (D1) or not.

It is observed that the appellant no longer argued in the oral proceedings that the subject-matter of claim 1 lacks novelty so that in the following only claim 19 is dealt with.

2.2 In contrast to (D1) the subject-matter of claim 19 is based on a **backing sheet**. Even if Figure 1 of (D1) is not to scale a skilled person would immediately derive the information that the clear and colour coats are by far thicker than the film "13". This leads to the result that the backing sheet in (D1) are the **coatings "11" and "12"** which carry the adhesive film and not the other way round.

2.3 What prevails in the known film "13" of (D1) is therefore its ability to act as an **adhesive**; any function to act as a **structural member** involving self-supporting properties, allowing elongation and preforming into a three dimensional configuration can, however, not be derived from (D1) if read by a skilled person.

2.4 Summarizing, (D1) lacks the feature "backing sheet" of claim 19 so that its subject-matter is novel over (D1) already for this reason.

2.5 Even if claim 19 does not define the exact thickness of the backing sheet it is observed that there exists an interrelationship between the function of support to other coatings, the ability of elongation and the

ability to be preformed into a three dimensional configuration.

2.6 The characterizing feature of claim 19 in the form of the functional term "backing sheet (72)..., having a sufficient thickness and sufficient elongation to prevent transfer of defects..." for a skilled person is therefore a clear pointer to a thickness of the backing sheet which allows to cope with the above requirements even if "semi-rigid" is not prescribed in claim 19 (but in claim 1) literally.

2.7 Still another feature of claim 19 cannot be derived unambiguously from (D1), namely thermoforming of the backing sheet into a preformed i.e. an intermediate shaped article, since this is only possible with a backing sheet which comprises the properties of being a support member, of allowing elongation, and having and achieving form stability and covering defects on a neighbouring surface of a backing substrate. The relatively thin film known from (D1), see again Figure 1 thereof and the layers "13, 11 and 12, does not fulfil the above requirements of the backing sheet of claim 19, so that the step of thermoforming of the backing sheet also makes the subject-matter of claim 19 novel over the disclosure of (D1).

2.8 Contrary to appellant's findings (D1) does not constitute novelty destroying prior art. Rather, the subject-matter of claim 19 (and also of claim 1) is novel.

2.9 The affidavits filed by the appellant cannot convince the board that the properties "semi-rigid" and "selfsupporting" are necessarily linked to a polymeric

(adhesive) film since the thicknesses of an adhesive film and a backing sheet are substantially different from one another and since any other findings are not supported by the disclosure of (D1) itself rather are the result of an interpretation of (D1) **knowing the claimed invention**. The exercise of hindsight is, however, not the right way to deal with the merits of any claim, in the present case with claim 19.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

P. Martorana

C. T. Wilson