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**D E C I S I O N**  
**of 13 April 1994**

**Case Number:** T 0854/92 - 3.2.1  
**Application Number:** 84308423.7  
**Publication Number:** 0145443  
**IPC:** B60R 13/06, B60J 1/00

**Language of the proceedings:** EN

**Title of invention:**

Method of moulding and bonding a gasket member onto a peripheral portion of a glass window

**Patentee:**

Sheller-Globe Corporation

**Opponent:**

- 01) Elastogran GmbH  
02) Vegla Vereinigte Glaswerke GmbH  
04) Schade KG

**Headword:**

-

**Relevant legal norms:**

EPC Art. 123(2)

**Keyword:**

"Amendments - added subject-matter (yes)"

**Decisions cited:**

T 0582/91

**Catchword:**

-



Case Number: T 0854/92 - 3.2.1

DECISION  
of the Technical Board of Appeal 3.2.1  
of 13 April 1994

**Appellant I:**  
(Opponent 01)

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**Appellant II:**  
(Opponent 02)

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**Respondent:**  
(Proprietor of the patent)

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Decision under appeal: Interlocutory decision of the Opposition Division of the European Patent Office dated 6 July 1992, with written reasons posted on 10 August 1992 concerning maintenance of European patent No. 0 145 443 in amended form.

Composition of the Board:

Chairman: F.A. Gumbel  
Members: P. Alting van Geusau  
J.-C. Saisset

## Summary of Facts and Submissions

- I. European patent No. 0 145 443 was granted with effect from 7 March 1990 on the basis of European patent application No. 84 308 423.7, filed on 4 December 1984.
- II. With notices of opposition filed on 28 November 1990, 6 and 7 December 1990, respectively, the Appellants and other party (Opponents 01, 02 and 04 respectively) requested revocation of the patent for the reason of non-compliance with the provisions of Article 100(a) EPC.

In respect of an alleged lack of novelty and inventive step of the subject-matter of the patent, the oppositions were essentially supported by the following documents:

- E1: Kunststof-Handbuch, Polyurethane, Volume 7, Oertel, page 150, Hanser Verlag 1983
- E3: JP-A-57 158481 (a translation in the English language was provided by Appellant II)
- E4: DE-A-3 119 151
- E5: Modern Plastics Encyclopaedia, Vol. 59, No. 10 A, pages 355 to 357, McGraw-Hill, New York, USA
- D18: "Scheibenverklebung mit Polyurethane" from A.T.Z. AUTOMOBILTECHNISCHE ZEITSCHRIFT; Vol. 85. No. 11, November 1983, page 678, Schwäbisch Gmünd, DE.

During the opposition procedure Appellant II submitted further documents after the nine-month period stipulated in Article 99(1) EPC, in particular

- E12: a lecture allegedly given on 24 June 1981 by employees of the company Gurit-Essex AG, 8807

Freienbach CH, at Volkswagen Werke in Wolfsburg,  
DE:

BETASEAL 71904 HV - EIN PUMPBARES,  
LUFTFEUCHTIGKEITSHÄRTENDES POLYURETHAN-  
KLEBEDICHTUNGSBAND ZUM EINKLEBEN VON  
FENSTERSCHEIBEN IN KRAFTFAHRZEUGE

Attached to the report were the following technical  
information sheets:

- D 910.1/1 BETASEAL 71904 HV VP 02508-2
- D 903.2 GRUNDIERUNG 435 . 46
- D 412.2/2 REINIGUNGSLÖSUNG NO. 4
- D 412.3/3 GLASPRIMER 84132 - 11
- D 411.1 BETASEAL 71904
- D 411.2 BETASEAL 71904 HV.

III. By decision given at oral proceedings held on 6 July  
1992, with written reasons posted on 10 August 1992, the  
Opposition Division maintained the patent in amended  
form in accordance with a main request submitted by the  
Proprietor.

As regards the prior art to be taken into consideration  
when appreciating the patentability of the claimed  
subject-matter, the Opposition Division held that only  
the documents D18, E3 and E4 were relevant for the  
decision to be taken.

In respect of the late cited report E12 the Opposition  
Division was of the opinion that no proof was given that  
the content of the report had been publicly available  
before the priority date of the present patent.

Moreover, because neither E12 nor the other late cited  
documents were considered to be more relevant than the  
documents cited within the nine-month period of

Article 99(1) EPC, all the late-cited documents were disregarded in accordance with Article 114(2) EPC.

The Opposition Division was further of the opinion that the subject-matter of the independent Claims 1 and 2 in accordance with the main request, filed with letter of 29 May 1992 and amended at the oral proceedings held on 6 July 1992 comprised an inventive step, in particular since the relevant prior art documents did not give any suggestion to a wiping step after applying silane-containing material to the glass window panel.

The independent Claims 1 and 2 of the amended patent upheld by the Opposition Division read as follows:

"1. A method of moulding and bonding a window gasket member (18) onto a peripheral portion of a glass window panel (16) in a mould cavity (44) of an reaction injection moulding system (46), said method comprising positioning said glass window panel (16) in a mould apparatus (48,50) defining said mould cavity (44) with said peripheral portion (17), the surface of which has been primed before insertion into the mould cavity, extending into said mould cavity and closing said mould apparatus; conveying said moulding material which is a multi-constituent urethane material, through a gating device (42) into said mould cavity and removing said glass window panel (16) from said mould cavity with said gasket member (18) moulded and bonded thereon after said moulding material has at least partially cured in said mould cavity, characterised in that, prior to being positioned in the mould cavity (44), at least a preselected portion (17) of said window panel (16) is first cleaned, has a silane-containing material applied thereto and allowed to flash off, and is wiped before having a primer (15) applied thereto; and in that the constituents of said urethane material are injected

under pressure into mixing means (36) at a predetermined flow rate before being conveyed therefrom to a gating device (42) to the mould cavity.

2. A method of moulding and bonding a window gasket member (18) onto a peripheral portion of a glass window panel (16) in a mould cavity (44) of a reaction injection moulding system (46), said method comprising positioning said glass window panel (16) in a mould apparatus (48,50) defining said mould cavity (44) with said peripheral portion (17), the surface of which has been primed before insertion into the mould cavity, extending into said mould cavity and closing said mould apparatus with said window panel (16), sealingly supported between flexible portions (56) of said moulding apparatus provided by elastomeric members (56) which are sufficiently flexible as to allow for minor variations in the shape or contour of the window panel; conveying said moulding material which is a multi-constituent urethane material, through a gating device (42) into said mould cavity and removing said glass window panel (16) from said mould cavity with said gasket member (18) moulded and bonded thereon after said moulding material has at least partially cured in said mould cavity, characterised in that, at least a preselected portion (17) of said window panel (16) is first cleaned, has a silane-containing material applied thereto and is wiped before having the primer (15) applied thereto and before being positioned in the mould cavity (44); in that an elastomeric member (56) is also provided between the mould parts (48,50) to define the outer periphery of the mould cavity (44); and in that the constituents of said urethane material are injected under pressure into mixing means (36) at a predetermined flow rate before being conveyed therefrom to a gating device (42) to the mould cavity."

VI. Appeals were lodged against this decision by Appellant I (Opponent 01) on 17 September 1992 and by Appellant II (Opponent 02) on 17 October 1992.

Together with his notice of appeal Appellant I also submitted his Statement of Grounds of Appeal. Payment of the appeal fee was received on 21 September 1992.

Appellant II paid the appeal fee, together with the submission of his notice of Appeal, on 17 October 1992. His Statement of Grounds of Appeal was received on 9 December 1992.

In his Statement of Grounds of Appeal, Appellant II submitted that the Opposition Division's negative opinion as to the public availability of the late-filed document E12 could not apply to the information contained in the technical information sheets attached to the report because the information of these sheets had been freely available before the priority date of the patent in suit.

In this respect Appellant II submitted a letter of the company Gurit Essex AG, dated 14 October 1992 and signed by Dr W. Saur, setting out the date encoding system used for indicating the date on the company's technical information sheets.

VII. With letter dated 16 June 1993 the Respondent stated that he did not think it to be necessary to submit any reasoned reply to the arguments put forward on behalf of the Appellants which did not appear to raise any fresh matters in the appeal proceedings.

No further comments as to the substantive issues were received from the Respondent after this date.



VIII. In a communication dated 9 August 1993 the Board expressed the provisional opinion that the independent Claim 2 would not appear to be acceptable for reasons of Article 123(2) EPC, because a feature functionally related to other features in Claim 6 had been omitted when combining the granted Claims 1 and 6, which claims were the basis for the subject-matter of the present Claim 2.

Furthermore, in view of the disclosures of the closest prior art disclosed in E3, and those of the information sheets D412.2/2, D412.3/3 and D411.1 attached to the lecture E12, the Board expressed doubt as to whether an inventive step was necessary to arrive at the subject-matter of Claim 1.

The Board also drew attention to the fact that the Respondent had not filed any requests.

IX. In support of his request for revocation of the patent Appellant I submitted essentially the following arguments:

As pointed out in the Appellant's letter filed on 28 November 1991 in the opposition proceedings, the Proprietor himself had emphasised that the "flashing off" and "wiping" steps after applying the silane containing material are very important in providing a monolayer of silane on the glass surface which allegedly leads to an extremely good adhesion of the PU material to the glass surface.

Although this subject-matter is indeed contained in Claim 1 of the amended patent, Claim 2 does not include such combination and, in comparison to Claim 1, merely relates to the use of an extra seal. It is therefore not

clear how the underlying problem of the patent is solved by the features of the independent Claim 2.

In addition to the precharacterising features of Claim 1 the document E3 also discloses that in particular the so-called RIM (reaction injection moulding) method is preferred. According to this method two or more components are collidingly mixed as they are injected at a relatively high pressure, which means that also the last features of Claim 1 are known from E3.

The remaining features of Claim 1 relating to the preparation of the glass window panel are essentially known from D18. The "wiping" step which is not explicitly disclosed in D18 cannot be considered of any inventive significance because in accordance with normal practice a skilled person would remove any surplus of the silane-containing material before he would apply the primer.

X. The arguments submitted by Appellant II can be summarised as follows:

The document E3 already discloses the combination of precharacterising features of Claim 1 and, taking into account the RIM method referred to of page 12 of the translation, also the characterising features relating to the injection of the urethane material.

The remaining features of the method of Claim 1 are disclosed in the technical information sheet D412.2/2 REINIGUNGSLÖSUNG NO.4 attached to E12, and since this cleaning liquid is used essentially for the same purpose as in the patent it would be obvious to the skilled person to use this known cleaning method in the known method of moulding and bonding of a window gasket member onto a peripheral portion of a glass window panel in

accordance with the teachings of E3 and thus to arrive at the subject-matter of Claim 1 of the patent in suit without any inventive activity being necessary.

### Reasons for the Decision

1. The appeal complies with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is admissible.

#### 2. *Amendments*

2.1 Claim 1 is essentially a combination of the subject-matter of the granted Claims 1 and 6, comprising essentially the features of the originally filed Claims 1 to 6, rearranged to take account of the closest prior art disclosed in:

E3: JP-A-57 158481.

No objections under Article 123 or 84 EPC arise against this claim.

2.2 The independent Claim 2 is a combination of the subject-matter of granted Claims 1, part of Claim 6 and Claims 8, 9 and 10, the subject-matter of these granted claims corresponds essentially with that of the originally filed Claims 1 to 6 and the disclosures on page 8, last paragraph and page 9, first paragraph, with respect to the embodiment shown in Figure 3, of the originally filed description.

2.2.1 From the combination of features of the granted Claim 1, respectively the originally filed Claim 6, the feature "allowing to flash off said preselected portion" (the

portion to which the silane-containing material was applied) was omitted.

- 2.2.2 However, no indication can be derived from the application as filed that such a "flashing off" step can be omitted. On the contrary, considering the disclosures of the application as originally filed, the "wiping" step after the application of a silane-containing material to the window panel is disclosed as a measure to prevent the glass from "clouding" (see page 9, lines 26 to 28 and the patent column 7, lines 1 to 3).

Since "clouding" is the result of the "flashing off" step, the "wiping" step is thus clearly functionally related to the "flashing off" step and, being disclosed as a functional unity, can thus only be claimed in combination in order not to infringe the requirements of Article 123(2) EPC (see also T 582/91 - 3.2.1 of 11 November 1992, point 2.2).

- 2.2.3 Moreover, as can be derived from the file, also the Proprietor emphasised throughout the first instance proceedings the importance of the "flashing off" and "wiping" step in providing a monolayer of silane on the glass surface which apparently lead to an extremely good bond of the Polyurethane material to the glass surface. In this respect reference is made in particular to the minutes of the oral proceedings of 6 July 1992, page 4, second paragraph.

- 2.2.4 Therefore, since the omission of the "flashing off" step in the new Claim 2, does neither have a basis in the application as originally filed nor can be considered to be superfluous for whatever reasons apparent to the skilled person, the present Claim 2 is not considered to comply with the provisions of Article 123(2) EPC in that

it contains subject-matter which extends beyond the content of the application as originally filed.

For this reason alone Claim 2 is not acceptable.

2.3 In the present case, in the absence of any subsidiary request by the Respondent, the non-acceptability of Claim 2 has the consequence that the patent cannot be maintained on the basis of the request on file and, therefore, has to be revoked.

3. In view of the fact that the patent is revoked for non-compliance with the provisions of Article 123(2) EPC there is no need to consider the issue of patentability of the subject-matter claimed, in particular in respect of the requirement of an inventive step.

However, for reasons of completeness it is noted that in the absence of any reasoned response by the Respondent to the communication dated 9 August 1993 the Board sees no reason for changing its provisional negative opinion on the issue of inventive step expressed in this communication (see point VIII above).

Order

For these reasons, it is decided that:

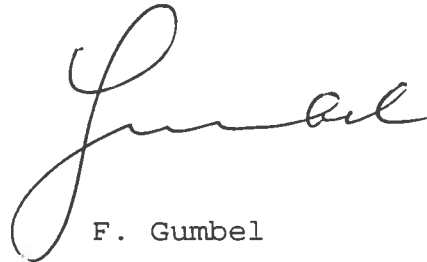
1. The decision of the Opposition Division is set aside.
2. The patent is revoked.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel