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Datasheet for the decision of 5 June 2007

Case Number: T 1156/04 - 3.3.03

Application Number: 95936878.8

Publication Number: 0787161

IPC: C08G 59/18

Language of the proceedings: EN

Title of invention:
Low voc laminating formulations

Patentee:
THE DOW CHEMICAL COMPANY

Opponent:
Resolution Research Nederland B.V.

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty - yes (main request)"
"Inventive step - no (main request)"
"Inventive step - yes (auxiliary request)"

Decisions cited:
-

Catchword:
-

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Case Number: T 1156/04 - 3.3.03

D E C I S I O N
of the Technical Board of Appeal 3.3.03
of 5 June 2007

Appellant: (Opponent)
Resolution Research Nederland B.V.
Vondelingenweg 601
NL-3190 AN Hoogvliet/Rotterdam (NL)

Representative:
van der Straaten, Jan Anthony
Resolution Research Nederland B.V.
P/a Hexion Speciality Chemicals Res. Belgium S.A.
Intellectual Property Section
Avenue Jean Monnet 1
B-1348 Ottignies-Louvain-la-Neuve (BE)

Respondent: (Patent Proprietor)
THE DOW CHEMICAL COMPANY
2030 Dow Center
Midland, Michigan 48674 (US)

Representative:
Casalonga, Axel
Bureau Casalonga & Josse
Bayerstraße 71/73
D-80335 München (DE)

Decision under appeal:
Decision of the Opposition Division of the European Patent Office dated 21 July 2004 and posted 2 August 2004 rejecting the opposition filed against European Patent No. 0787161 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: R. Young
Members: W. Sieber
E. Dufrasne

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 787 161, in respect of European patent application no. 95 936 878.8, based on International application PCT/US95/13358, in the name of The Dow Chemical Company, filed on 13 October 1995 and claiming a GB priority of 21 October 1994 (GB 9421405), was published on 27 June 2001 (Bulletin 2001/26). The granted patent contained 11 claims, whereby Claims 1 and 2 read as follows:

"1. A formulation comprising:

(1) a low-viscosity epoxy resin, being either a liquid at 20°C or having an average formula weight per epoxy equivalent of no more than 350 for all non-halogen atoms in the molecule;

(2) a phenolic chain extender which contains an average 1.8 - 2.1 phenolic hydroxyl groups per molecule whose concentration is from 0.1 to less than 0.6 equivalents of phenolic hydroxyl group per equivalent of the low-viscosity epoxy resin;

(3) a catalyst containing amine, phosphine or heterocyclic nitrogen moieties that promotes self-curing reactions between epoxy groups containing on average no more than about I active hydrogen moiety per molecule;

(4) an inhibitor which is a Lewis acid in an inhibiting amount of from at least 0.3 moles to 3 moles of inhibitor per mole of catalyst which inhibits the

activity of the catalyst during B-staging so as to retard the curing reaction of epoxy resin with epoxy resin at B-stage;

(5) a volatile organic solvent in an amount of less than 25 weight percent;

(6) optionally, a multifunctional cross-linking agent containing on average more than two active hydrogen moieties per molecule,

(7) the viscosity of the formulation at 20°C is no more than 800 m.Pa.s.

2. A preliminary formulation comprising:

(1) a low-viscosity epoxy resin, being either a liquid at 20°C or having an average formula weight per epoxy equivalent of no more than 350 for all non-halogen atoms in the molecule;

(2) a phenolic chain extender which contains an average 1.8 - 2.1 phenolic hydroxyl groups per molecule and whose concentration is from 0.1 to less than 0.6 equivalents of phenolic hydroxyl group per equivalent of the low-viscosity epoxy resin;

(3) a Lewis acid in an inhibiting amount of from 0.05 phr to 2 phr of the combined low-viscosity epoxy resin and chain extender, by weight which inhibits the activity of a catalyst containing amine, phosphine or heterocyclic nitrogen moieties during B-staging so as to retard the curing reaction of epoxy resin with epoxy resin at B-stage;

(4) a volatile organic solvent in an amount of no more than 20 weight percent."

Claims 3-9 and 11 were dependent claims directed to elaborations of the formulations according to Claims 1 and 2. Claim 10 was directed to the use of a formulation as described in any of Claims 1 or 3-9 in a process to make electrical laminates.

II. A notice of opposition was filed by Resolution Research Nederland B.V. on 20 March 2002 requesting revocation of the patent in its entirety on the grounds of Article 100 (a) EPC (lack of novelty and lack of inventive step).

Among the documents cited by the parties during the opposition procedure were:

D1: WO-A-95/12627;

D2: US-A-4 868 059;

D3: EP-A-0 458 502;

D6: Comparative tests submitted by the proprietor with a letter dated 14 November 2003; and

D7: Comparative tests filed by the opponent with a letter dated 19 May 2004.

III. By a decision which was announced orally on 21 July 2004 and issued in writing on 2 August 2004, the opposition division rejected the opposition.

According to the opposition division, the claimed subject-matter was novel over D1 (Article 54(3) EPC) and D3 (Article 54(2) EPC).

D2 was regarded to represent the closest prior art since one of the overall technical problems underlying the patent in suit, the use of low volatile organic compound was already solved in D2 wherein a solvent content of less than 25% was preferred.

One of the distinguishing features of the claimed subject-matter over D2 was the relative amount of phenolic compounds present in the formulations (patent in suit: 0.1 to less than 0.6 equivalents compared with 0.75 to 1 in D2). The comparative tests in D6 showed that this distinguishing feature was linked to a significant lower "NMP" (N-methylpyrolidone) pick-up. Furthermore, D6 showed that the claimed subject-matter had a broader processing window during the prepreg melt processing stage due to a possible different reaction mechanism. Faced with such problems (solvent resistance, processing window), a skilled person would have found no incentive in D3 to adjust the phenolic OH/epoxy equivalent ratio in order to improve the solvent resistance and processing window. Consequently, the requirements of Article 56 EPC were met.

IV. On 24 September 2004, the appellant (opponent) filed a notice of appeal against the above decision with simultaneous payment of the prescribed fee.

The appellant's arguments filed with the statement of grounds of appeal on 22 November 2004 and in letters

dated 22 November 2005 and 25 April 2007 may be summarized as follows:

(a) The appellant believed that D3, and in particular Examples 3 and 8, anticipated the claimed subject-matter. In this context, the following further documents were filed in order (i) to identify the epoxy resin used in Example 8 and (ii) to demonstrate that the formulations of D3 had the viscosity required in Claim 1 as granted:

D11: Product Information D.E.R. 330 of Dow Plastics, October 2001;

D12: Sheet with the heading "Viscosity Conversions" (illegible); and

D14: Conversion chart "Viscometer Comparison Chart".

Concerning the equivalence of "centipoise" and "mPa s", a passing reference was made to page 30, Example 44 of WO-A-86/00627.

(b) As regards inventive step, the only difference between D3 and the claimed subject-matter, if any, could be seen in the solvent content of the formulation. But the information as to a low solvent content in epoxy formulations could be found in D2, column 7, lines 63-65.

The opposition division had based its finding on inventive step on the arguments and experiments of the proprietor relating to the improvement of the

lower NMP pick-up of the cured varnishes and the processing window. These two characteristics were neither mentioned in the contested patent nor in the application as originally filed. Apart from that, the opposition division did not consider the opponent's additional experiments D7. Based on D7 and the teaching of D3 it became obvious that a low T_g (glass transition temperature) would lead to a higher NMP pick-up and that a formulation with a phenolic OH/epoxy ratio as specified in Claim 1 as granted would not always lead to an improved NMP pick-up. In this connection, it was pointed out that an improved NMP pick-up was apparently associated with one specific chain extender, namely tetrabromobisphenol A.

V. The arguments of the respondent (proprietor) submitted with letters dated 1 August 2005 and 18 April 2007 may be summarized as follows:

(a) The claimed subject-matter was not directly and unambiguously derivable from D3.

(b) The ability of the claimed subject-matter to solve the problems of broadening the process window and reducing MNP solvent pick-up by adjusting the phenolic hydroxyl group to epoxy equivalent ratio was completely unexpected from the cited references. D2 was directed to solving a different problem, namely how to increase the T_g of the laminate. D3 addressed the problem of how to make an epoxy resin that can be controllably B-staged by adding an inhibitor, such as boric acid. There was no pointer in D3 that adjusting the phenolic

hydroxyl group to epoxy equivalent ratio would provide a further improvement in B-staging control.

(c) The respondent also filed an auxiliary request and supplemental comparative tests.

D13: Supplemental Comparative tests filed by the respondent with a letter dated 18 April 2007.

The supplemental comparative tests comparing a repetition of Example 3 of D3 with the claimed subject-matter were conducted to show that the ranges specified in Claims 1 and 2 were causally connected to the solution of the processability problem addressed by the patent in suit.

VI. On 5 June 2007, oral proceedings were held before the board.

(a) The appellant did not pursue the novelty objection against the subject-matter of Claim 1 as granted but argued that the subject-matter of Claim 2 as granted was not novel over Example 3 of D3.

The respondent requested that novelty be considered only with respect to Claim 1 because the new objection came as a surprise. Nevertheless, the subject-matter of Claim 2 as granted was not clearly and unambiguously derivable from Example 3 of D3.

(b) As regards inventive step, the appellant considered D3 as the closest prior art, in particular Example 3 of D3 which differed from the

claimed subject-matter only in the solvent content. The reduction of solvent was, however, a generally known aim in industry, as could be seen from WO-A-86/00627. Thus, nothing inventive could be seen in the claimed subject-matter. Apart from WO-A-86/00627, D2 also taught towards lower solvent contents in formulations containing epoxy resins.

The respondent objected to the introduction of WO-A-86/00627 which was up to then not in the proceedings. Apart from that, a person skilled in the art would not consider reducing the amount of solvent in the formulation of Example 3 of D3 because he/she would expect precipitation of the chain extender, namely dicyandiamide. It was also pointed out that adjusting the phenolic hydroxyl group to epoxy equivalent ratio was an important feature of the claimed subject-matter.

(c) As regards the auxiliary request then on file, the chairman pointed to some formal defects in this claim set with respect to Article 123 and/or 84 EPC. In view of these objections, the appellant filed an amended auxiliary request containing nine claims.

Claim 1 of the auxiliary request differed from Claim 1 as granted in that the following text was added at the end of the claim:

"…, wherein the formulation contains no more than 0.6 equivalents of phenolic chain extender and multifunctional cross-linking agent per epoxy

equivalent when the multifunctional cross-linking agent is present."

Claim 2 of the auxiliary request differed from Claim 2 as granted in that the following text was added at the end of the claim:

"…, wherein the formulation contains less than 0.05 phr curing catalyst and less than 0.05 equivalents of multifunctional cross-linker per epoxide equivalent."

The appellant raised no objections under Article 123, 84, 54 or 56 against the claims of the auxiliary request.

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

The respondent requested that the appeal be dismissed, or, in the alternative, that the patent be maintained on the basis of the auxiliary request (Claims 1-9) filed at the oral proceedings.

Reasons for the Decision

1. The appeal complies with Articles 106 and 108 EPC and Rule 64 EPC and is therefore admissible.

Main request

2. *Novelty (main request)*

The only relevant document with respect to novelty is D3. No other document has been invoked in this connection in the appeal proceedings.

2.1 D3 relates to epoxy resin compositions containing compounds which inhibit the cure of the epoxy resin at lower temperatures, namely boric acid or maleic acid, or a mixture of boric acid with at least one acid having a weak nucleophilic anion (Claim 1). D3 further describes applications of such inhibited epoxy resin compositions, eg coating, laminates, prepregs, encapsulated materials and composites prepared from such inhibited epoxy resin compositions. Examples 3 and 8 describe the preparation of varnishes.

2.2 In the written procedure, the appellant has raised novelty objections against Claim 1 as granted in view of Examples 3 and 8 of D3. However, these novelty objections were not pursued at the oral proceedings before the board.

Indeed, the subject-matter of Claim 1 as granted is novel over Examples 3 and 8 of D3 because the formulations described in these examples contain an amount of volatile organic solvent which exceeds the limit given in Claim 1 as granted (requirement (5): less than 25 weight percent). The formulation of Example 3 contains 29.6 weight percent volatile organic solvent as can be calculated from the data given in the passage at page 20, line 58 to page 21, line 10. As

regards the formulation of Example 8, this formulation contains also too much volatile organic solvent. In addition, the epoxy equivalent weight of the resin used (ie requirement (1) of Claim 1 as granted) is not indicated. Thus, the subject-matter of Claim 1 as granted is novel over Examples 3 and 8 of D3.

2.3 At the oral proceedings the appellant raised for the first time a novelty objection against the subject-matter of Claim 2 as granted in view of Example 3 of D3. It was argued that a formulation according to Claim 2 as granted was formed as an intermediate during the preparation of the varnish of Example 3.

2.3.1 Although this new objection represented an amendment to the appellant's case and admittedly could have been brought up at an earlier stage, the board admitted in the exercise of its discretion this submission for consideration because:

- the objection appeared to be *prima facie* relevant,
- the appellant had requested revocation of the patent in its entirety, ie including Claim 2, and
- D3, and in particular Example 3 thereof, had been thoroughly analyzed and considered by the parties in the written procedure so that the relevant issue could be ascertained without difficulty and without compromising the efficiency of proceedings.

2.3.2 Nevertheless, the appellant's objection cannot succeed because the subject-matter of Claim 2 as granted is not clearly and unambiguously derivable from Example 3 of

D3. The relevant passage in D3 (page 21, lines 6-10) states that a varnish is prepared by mixing and blending a solution containing an epoxy resin and tetrabromobisphenol A (a phenolic chain extender) with the following three solutions: a boric acid solution, a dicyandiamide solution and a 2-methyl imidazole solution. Only when these three solutions are added sequentially with the boric acid solution being added first would the resulting intermediate formulation anticipate the subject-matter of Claim 2 as granted. However, Example 3 of D3 does not state that the three solutions were added sequentially. Moreover, as pointed out by the respondent, the solutions could have been added simultaneously thereby resulting in a formulation not anticipating the subject-matter of Claim 2. In the board's view, the relevant passage in D3 is not clear as regards the addition of the three solutions. Depending on the interpretation chosen, different conclusions with respect to novelty are reached, a fact which was also admitted by the appellant. Thus, Example 3 of D3 cannot amount to a clear and unambiguous disclosure which takes away the novelty of the subject-matter of Claim 2 as granted.

2.4 It follows from the above that the subject-matter of Claims 1 and 2 as granted, and, by the same token, the subject-matter of Claims 3-11 as granted is novel over document D3 (Article 54 EPC).

3. *Problem and solution (main request)*

3.1 Claim 1 as granted is directed in general terms to epoxy resin containing formulations which are useful for making laminates (paragraph [0001] of the patent in

suit). In that technical field, formulations are needed that (1) have a low viscosity in the impregnation step, (2) build molecular weight by advancement rapidly and controllably in the B-stage in order to minimize dripping, (3) control undesirable curing reactions to prevent excessive growth of molecular weight in the treater or during storage, and (4) provide a B-staged prepreg with sufficient viscosity to be laminated without significant loss of resin (paragraph [0009]).

3.2 As mentioned in point 2.1, above, D3 relates likewise to cure-inhibited epoxy resin compositions that are used in the manufacture of eg coatings, laminates and prepregs. Furthermore, D3 refers on page 3, lines 49-51 to the need of an epoxy resin composition that can be controllably B-staged. Thus, apart from describing structurally closely related epoxy resin formulations, D3 discloses technical effects, purpose and intended use most similar to the claimed subject-matter. Therefore, the board considers D3, and in particular the formulation disclosed in Example 3 of D3, to represent the closest prior art.

3.3 The subject-matter of Claim 1 differs from the formulation disclosed in Example 3 in D3 in a slightly reduced quantity of volatile organic solvent. A technical effect over the closest prior art due to this difference is not apparent from the patent in suit.

The respondent argued that there was no pointer in D3 that adjusting the phenol hydroxyl group to epoxy equivalent ratio to 0.1 to less than 0.6 would provide a further improvement in B-staging control. However, this argument cannot be taken into account for the

assessment of inventive step because the formulation of Example 3 of D3 also has a hydroxyl group to epoxy equivalent ratio falling within the range required in Claim 1 as granted as can be seen from the respondent's supplemental comparative tests (D 13, Table 2). If the closest prior art has the required ratio it must inevitably have the effect based on this requirement. The recognition or the explanation of such an existing effect cannot justify inventive step of the claimed formulation.

Thus, the objective technical problem to be solved over the closest prior art can only be seen in the reduction of the content of the volatile organic solvent.

As can be seen from the examples in the patent in suit, the amount of solvent has been reduced to a level below 25 weight percent, so that the board is satisfied that the objective technical problem is solved.

4. *Inventive step (main request)*

4.1 It remains to be decided whether the proposed solution, ie the reduction of the volatile organic solvent to a level of less than 25 weigh percent, is obvious from the prior art.

4.2 The reduction of the quantities of volatile organic solvent is a general aim in industry, especially in view of the ever more demanding environmental requirements. This applies also to the formulations comprising epoxy resins as can be seen from D2. D2 relates to laminates prepared from prepreg materials. These materials have been prepared by impregnating a

substrate with a laminating varnish composition comprising a solution of an epoxy-containing composition. In column 7, lines 61-65 of D2 it is stated that the amount of solvent "is suitably from zero to about 75, more suitably from zero to about 50, most suitably from about zero to 25 parts of solvent by weight based upon the total of weight of the laminating varnish". Thus, the tendency of reducing the amount of organic solvent is already apparent from D2, a document which is exactly in the same technical field as the patent in suit. Therefore, the skilled person had an incentive from the prior art further to reduce the amount of solvent in the epoxy-containing formulations of the closest prior art. And by just slightly reducing the amount of solvent of the formulation of the closest prior art, he/she would inevitably arrive at something falling within the scope of Claim 1 as granted. Consequently, the subject-matter of Claim 1 as granted is obvious in view of D3 in combination with D2.

The argument of the respondent that the skilled person would not try to reduce the amount of solvent in the formulation of Example 3 of D3 because he/she would expect that a component, namely dicyandiamide, would precipitate out of the solution, is not convincing. Firstly, no evidence has been offered for this statement, and, secondly, D2 provides, in the board's view, an incentive further to reduce the amount of solvent.

4.3 At the oral proceedings, the appellant based its inventive step objection on a combination of D3 with document WO-A-86/00627. However, the board did not admit in the exercise of its discretion submissions

based on the disclosure of the latter document for the following reasons:

- WO-A-86/00627 was not part of the opposition proceedings and had been referred to in the appeal proceedings only in the appellant's latest submission of 25 April 2007 in a completely different context (point IV(a), above).

- Although WO-A-86/00627 is quoted in the contested European patent, such a document does not automatically form part of the opposition or opposition appeal proceedings (Case Law of the Boards of Appeal of the European Patent Office, 5th edition, 2006, VI.F6). In the present case, the document was not even cited as the closest prior art for elucidating the technical problem.

- WO-A-86/00627 had not been analyzed and considered by the respondent or the board. Thus, in contrast to the novelty objection against Claim 2 as granted (see point 2.3.1, above), the relevant issue could not be ascertained without difficulty.

- Finally, the appellant could not explain why the disclosure of WO-A-86/00627 was more relevant than the documents on file, in particular D2.

4.4 In summary, the subject-matter of Claim 1 as granted is not based on an inventive step (Article 56 EPC). Consequently, the respondent's main request has to be refused.

Auxiliary request

5. *Amendments (auxiliary request)*

5.1 Claim 1 of the auxiliary request differs from Claim 1 as granted in that the following text has been added at the end of the claim:

"…, wherein the formulation contains no more than 0.6 equivalents of phenolic chain extender and multifunctional cross-linking agent per epoxy equivalent when the multifunctional cross-linking agent is present."

5.1.1 The formulation of Claim 1 covers two alternatives, namely a formulation where no multifunctional cross-linking agent is present and a formulation where a multifunctional cross-linking agent is present. The amendment to Claim 1 of the auxiliary request relates only to the latter alternative. This amendment is supported by the passage at page 9, lines 11-15 of the application as originally filed where it is stated that the formulation more preferably contains no more than 0.6 equivalents of chain extender and cross-linker. This statement has been made in the context when a multifunctional cross-linker is present as can be seen from the sentence at page 8, line 32 of the application as originally filed ("The formulation preferably further contains a multifunctional cross-linker.").

5.1.2 It might be worth pointing out that there is no discrepancy between the range of 0.1 to less than 0.6 equivalents in requirement (2) which **excludes** the value of 0.6 and the newly introduced range of no more than

0.6 equivalents which **includes** the value of 0.6 because the former range applies to the alternative where no cross-linking agent is present and the latter range applies to the alternative where a cross-linking agent is present.

5.2 Claim 2 of the auxiliary request differs from Claim 2 as granted in that the following text has been added at the end of the claim:

"…, wherein the formulation contains less than 0.05 phr curing catalyst and less than 0.05 equivalents of multifunctional cross-linker per epoxide equivalent."

The incorporation of the additional requirements is based on Claim 12 as granted and Claim 12 as originally filed, respectively.

5.3 Claims 3-9 of the auxiliary request correspond to Claims 3-6 and 8-10 as granted whereby in Claims 7-9 the dependencies have been amended accordingly. Furthermore, in order to avoid an inconsistency with amended Claim 1, the requirement "and no more than 0.75 combined equivalents of chain extender and cross-linker per epoxy equivalent" has been deleted in Claim 7.

5.4 Consequently, no objections under Article 123 or Article 84 EPC arise against the claims of the auxiliary request. Nor was any objection in this respect raised by the appellant.

6. *Novelty (auxiliary request)*

Novelty of the subject-matter of Claim 1 as granted has been acknowledged (point 2.4, above). Thus, the subject-matter of Claim 1 of the auxiliary request which contains a further requirement *is a fortiori* novel.

7. *Problem and solution (auxiliary request)*

7.1 D3 is still the closest prior art for the subject-matter of the auxiliary request. As set out in point 3.1 above, the patent in suit addresses the processability problem in making laminates, in particular during B-staging. The respondent has submitted supplemental comparative tests D13 comparing a repetition of Example 3 of D3 with the claimed subject-matter with respect to processability. The supplemental comparative tests show that the ranges specified in Claims 1 and 2 of the auxiliary request that further distinguish between Example 3 of D3 and the claimed subject-matter are purposive in that they are causally connected to the solution of the processability problem addressed by the patent in suit. In particular, the evidence shows that a substantial improvement in processability is obtained when the formulation contains no more than 0.6 equivalents of phenolic chain extender and multifunctional cross-linking agent per epoxy equivalent as specified in Claim 1 of the auxiliary request and when the preliminary formulation contains less than 0.05 equivalents of cross-linker per epoxy equivalent as specified in Claim 2 of the auxiliary request. The ability to maintain a relatively low melt viscosity at

higher temperatures provides a broader processing window and better impregnation of the fibre mat with less distortion of the fibres during impregnation.

The appellant criticized that Example 3 of D3 was not exactly repeated in D13 because the epoxy resin and the tetrabromobisphenol A were blended at a temperature of 140°C instead of 130°C as disclosed in D3. It is, however, conspicuous to the board that this discrepancy in the temperature occurs only in the initial mixing step where epoxy resin, tetrabromobisphenol A and solvent are blended. After this initial mixing, the mixture is cooled down to 70°C and the further components are added. The appellant could not show that this slight difference in the mixing temperature had any influence on the processability properties of the final formulation. Thus, the board accepts the supplemental comparative tests as a fair comparison with the closest prior art.

7.2 Hence, with respect to the subject-matter of the auxiliary request, the objective technical problem to be solved over the closest prior art has to be seen in the provision of epoxy-containing formulations with improved processability.

The patent in suit indicates not only in paragraph [0009] of the patent in suit (see point 3.1, above) that it is concerned with processability, especially with the development of viscosity during the lamination process, but also in paragraphs [0042], [0048] and [0050]. Those paragraphs are identical to corresponding paragraphs in the application as originally filed. Thus, the objective technical problem

as formulated above is clearly derivable from the application as originally filed.

In view of the supplemental comparative tests provided by the respondent, the board is satisfied that this problem is solved by the features set out in Claims 1 and 2 of the auxiliary request.

As regards the appellant's criticism raised in connection with inventive step of the subject-matter of the main request that all the respondent's data rely on formulations made with tetrabromobisphenol A as the phenolic chain extender, the board wants to point out that the burden is on the opponent/appellant to show that the technical effect of the claimed subject-matter would not be obtained with other phenolic chain extenders. This has not been done by the appellant. In any case, the use of tetrabromobisphenol A as the chain extender in the supplemental comparative tests is justified by the fact that use of a different chain extender would introduce another variable in the comparison with the closest prior art.

8. *Inventive step (auxiliary request)*

There is no hint in D3 or any other cited prior art document that the processability of epoxy resin-containing formulations could be further improved by adjusting the concentration of equivalents of phenolic hydroxyl group to 0.1 to less than 0.6 or, when cross-linker is present, to adjust the concentration of equivalents of phenolic chain extender and cross-linking agent to not more than 0.6.

Thus, the claimed subject-matter is based on an inventive step. Nor was any objection in this respect raised by the appellant.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of the auxiliary request (Claims 1 to 9) filed at the oral proceedings and after any necessary consequential amendment of the description.

The Registrar: The Chairman:

E. Görgmaier R. Young