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**Datasheet for the decision  
of 24 June 2021**

**Case Number:** T 0715/16 - 3.2.05

**Application Number:** 08156742.2

**Publication Number:** 1995273

**IPC:** B29C44/08, B29C44/26,  
B29C44/34, B29C44/60, C08J9/12,  
E04F19/04

**Language of the proceedings:** EN

**Title of invention:**  
Process and apparatus for producing foamed styrenic polymers

**Patent Proprietor:**  
Orac Holding NV

**Opponent:**  
NMC S.A.

**Relevant legal provisions:**  
EPC Art. 56, 83, 108, 111(1), 123(2)  
EPC R. 99(2)  
RPBA Art. 13(1), 13(3)  
RPBA 2020 Art. 11

**Keyword:**

Admissibility of appeal - (yes)  
Late-filed request - amendments after arrangement of oral proceedings - the first summons are decisive for the purpose of applying the transitional provision of Article 25(3) RPBA 2020 (admitted: yes)  
Late-filed document - admitted (yes)  
Amendments - added subject-matter (no)  
Sufficiency of disclosure - (yes)  
Inventive step - (yes)  
Remittal - (yes)

**Decisions cited:**

J 0010/11, T 0220/83, T 0766/91, T 0106/97, T 0162/97,  
T 0446/00, T 0015/01, T 1668/07, T 1990/07, T 0573/09,  
T 0670/09, T 1354/11, T 0198/15, T 1511/15, T 0950/16



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Case Number: T 0715/16 - 3.2.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.05**  
**of 24 June 2021**

**Appellant I:** Orac Holding NV  
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**Appellant II:** NMC S.A.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
11 January 2016 concerning maintenance of the  
European Patent No. 1995273 in amended form.**

**Composition of the Board:**

**Chairman** P. Lanz  
**Members:** T. Vermeulen  
C. Brandt

## **Summary of Facts and Submissions**

- I. Both the patent proprietor and the opponent lodged an appeal against the interlocutory decision of the opposition division finding that European patent No. 1 995 273 (hereinafter: the patent) as amended with auxiliary request 14, which was filed during the oral proceedings held on 9 December 2015, met the requirements of the European Patent Convention.
- II. The opposition was filed against the patent as a whole based on Article 100(a) EPC, lack of novelty and inventive step, on Article 100(b) EPC and on Article 100(c) EPC.
- III. The opposition division concluded that the opposition was admissibly filed and that the subject-matter of claim 1 of the patent as granted and the subject-matter of claim 1 as amended during the opposition proceedings according to the auxiliary requests 1 to 13 extended beyond the content of the application as originally filed.
- IV. The opposition division had in particular considered the following documents:
- |     |  |
|-----|--|
| D5  | US 3 922 328;  |
| D6  | WO 2004/074368 A1;                                       |
| D7  | BE 1019920 A5;   |
| D10 | BE 838 628;  |
| D11 | US 4 424 287;  |
| D12 | First declaration of Chul Park, dated<br>2 October 2015; |

D13 First declaration of Miguel Knockaert, dated 8 October 2015.

V. With their grounds of appeal the patent proprietor filed auxiliary requests 1 to 34, as well as following documents:

D12a Second declaration of Chul Park, dated 11 March 2016;

D13a Second declaration of Miguel Knockaert, dated 9 May 2016.

VI. On 26 July 2019 the parties were summoned to oral proceedings scheduled for 30 March 2020.

VII. With letter dated 29 January 2020 the opponent filed following documents:

Annex 1 Tramaco - Tracel NC 7155 ACR;

Annex 2 Tramaco - Chemical Blowing Agents and Additives - Extrusion of Polystyrene and its Copolymers like ABS, SAN;

Annex 3 Fachtagung "Polymerschäume - Perspektiven und Trends", Festung Marienberg, Würzburg, 7 and 8 February 2007, pages 8 and 9.

VIII. With letters dated 11 and 12 March 2020 both the patent proprietor and the opponent requested to postpone the oral proceedings to a later date in view of the Covid-19 pandemic.

IX. The oral proceedings scheduled for 30 March 2020 were cancelled by notification of 16 March 2020.

X. On 7 July 2020 the parties were summoned to oral proceedings to be held on 24 June 2021.

XI. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal in the 2020 version (RPBA 2020), issued on 3 March 2021 and hereinafter referred to as 'the board's communication', the parties were informed of the board's provisional opinion.

XII. In reply to the board's communication, the opponent made further submissions with letter dated 23 April 2021 and included following documents:

- CG1 "Thermoplastic Foams", J.L.Throne, 1996, Chapter 5;
- CG2 "Thermoplastic Foam Processing - Principles and Development", CRC Press, 2005;
- CG3 "Foam Extrusion - Principles and Practice", CRC Press, 2000.

XIII. With letter dated 14 June 2021 the patent proprietor filed auxiliary request 35.

XIV. Oral proceedings before the board were held by videoconference on 24 June 2021. During the oral proceedings the appellant withdrew the main request and auxiliary requests 1 to 34.

XV. Appellant I (hereinafter: the patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of auxiliary request 35 filed with letter dated 14 June 2021.

Appellant II (hereinafter: the opponent) requested that the decision under appeal be set aside and that the patent be revoked.

XVI. Claims 1 and 11 of auxiliary request 35 have the following wording (the feature numbering used by the board is introduced in square brackets):

"1. [F0] A method for producing a styrenic polymer foam profile [F0.1] having a surface Shore hardness D of 35 or more, very sharp elements of detail (D) or edges (E) having a radius of 1 mm or less, [F0.2] and a density between 100 and 400 Kg/m<sup>3</sup>, the method comprising the steps of: [F1] (i) mixing in an extruder (2): [F1.1] - a styrenic polymer composition, [F1.2] - a chemical blowing agent for releasing a gas, said chemical blowing agent being in a quantity of 0.1 to 1.5 %wt related to the weight of the styrenic polymer composition, and [F1.3] - a physical blowing agent at a quantity of  $9 \cdot 10^{-2}$  to  $1.3 \cdot 10^{-1}$  mol/Kg of the styrenic polymer composition, [F1.4] under sufficient pressure and heat to obtain a single phase mixture, wherein [F1.5] (ia) said styrenic polymer composition and said chemical blowing agent are introduced as a premix via a material inlet (1) of the extruder (2), [F1.6] (ib) mixing and heating said premix are performed, in order to obtain a plasticized mixture, [F1.7] (ic) said physical blowing agent is introduced under pressure through an injection port (7) performed in the extruder (2), downstream from the material inlet (1), and [F1.8] (id) said plasticized mixture and said second blowing agent are kneaded and pressurized until said single phase mixture is obtained, [F2] (ii) gradually cooling down said mixture, [F3] (iii) performing an initial foaming of said mixture upon extruding said mixture through a shaping tool (11), and [F4] (iv) passing said foam through a calibration system in order to form said styrenic polymer foam profile [F5], wherein said

chemical blowing agent is responsible for said initial foaming."

"11. A foamed profile comprising a styrenic polymer foam, obtainable by a method according to any one of claims 1 to 10, the profile being a solid, hollow or open profile."

XVII. The parties' submissions may be summarised as follows:

*Admissibility of the opponent's appeal*

- *Patent proprietor*

The admissibility of the opponent's appeal was contested. In their statement setting out the grounds of appeal, the opponent did not challenge the legal basis given in the decision under appeal. They made no attempt to engage with the findings of the opposition division, but repeated arguments made in their written and oral submissions during proceedings before the opposition division. In addition, in the various sections of their statement dealing with the grounds for opposition under Article 100(a), (b) and (c) EPC, the opponent invoked the person skilled in the art in many instances without providing documentary support for the allegations of common general knowledge. Particular reference was made to section V.A.2.6.3.a of "Case Law of the Boards of Appeal of the European Patent Office" in its 9th edition of 2019 (hereinafter: "Case Law") and to decisions T 573/09, T 162/97 and T 766/91. The scope of the opponent's appeal should be limited to inventive step and should exclude the grounds for opposition under Article 100(a) EPC with respect to lack of novelty, Article 100(b) EPC and Article 100(c) EPC.



- *Opponent*

The patent proprietor's objection against the admissibility of the opponent's appeal was refuted.

*Admittance of auxiliary request 35*

- *Patent proprietor*

The objection under Article 123(2) EPC to the absence of the specific surface Shore hardness D of the claimed profiles was raised at a late stage in the proceedings. It was not part of the notice of opposition, nor was it discussed in the preliminary opinion of the opposition division or in the decision under appeal. The opponent summarily raised the issue for the first time in their statement setting out the grounds of appeal in the context of an intermediate generalisation argument focusing on the melt flow index. The patent proprietor rebutted this objection in their reply to the opponent's grounds of appeal by pointing out that the statements in the original application about the Shore hardness D of the profiles were conditional. This was notionally confirmed in the preliminary opinion of the board. The shift of focus away from the melt flow index towards the Shore hardness D feature was relatively recent. The first reasonable opportunity to present an auxiliary request dealing with this matter was in preparation for the oral proceedings before the board. Regarding the short period of time between the filing of auxiliary request 35 and the oral proceedings, this was due to the substantial time required to study the voluminous documents CG1 to CG3 submitted by the opponent with their letter dated 23 April 2021.

In T 1990/07 an auxiliary request was disallowed because it was found not to be *prima facie* allowable.

Furthermore, the amendments to claim 1 were not complex. On the contrary, they were tailored to the absolute bare minimum required to solve the issue raised by the opponent, namely exactly the wording proposed by the board in their preliminary opinion. Sufficient time had been available to the other party to study these amendments. No adjournment of the oral proceedings was needed. It should further weigh in favour of admitting auxiliary request 35 that all outstanding issues were solved by the amendments, so that the request was *prima facie* allowable and its admission would not pose any additional burden on the board or on the other party.

- *Opponent*

According to the case law, amendments should be filed as soon as possible. An auxiliary request submitted three months after the issuance of the board's communication and ten days before the oral proceedings did not qualify as an immediate reaction. As in T 1990/07 and T 1354/11, such a late-filed auxiliary request should not be admitted. In fact, already in their letter of 30 January 2020 the patent proprietor mentioned the issue of the link between the feature related to the very sharp edges and the Shore D hardness.

*Allowability of amendments*

- *Patent proprietor*

Regarding feature F0.2, the first and second embodiments mentioned on pages 2 and 3 of the description as originally filed were not limited to foams, since both included the step of extruding a foaming mixture through a shaped die. The distinction between foams and foam profiles made by the opponent was artificial. The skilled person with a mind willing to understand would realise that, in the context of the application as originally filed, also the broader density range referred to foam profiles, because they resulted from the extruding process. Furthermore, the bottom paragraph of page 19 of the description as originally filed provided a link between styrenic polymer foams having a density between 100 and 400 kg/m<sup>3</sup> and the extruded products.

With regard to the amendment of feature F4, it was emphasised that the application as originally filed essentially dealt with two different aspects: nucleation and foaming, see page 2, lines 7 to 24. Whereas the first part of that paragraph described the relevant aspect of the invention - the chemical blowing agent providing nucleation sites for the physical blowing agent - the second part concerned the sequential foaming which was not crucial. Declarations D12, D12a, D13 and D13a were relied on as secondary references in support of this view. Hence, replacing a feature related to the second aspect - here, the physical blowing agent having its foaming activity extended over a larger range of temperatures - by a feature which related to the first aspect did not

result in the skilled person being presented with technical information which was not directly and unambiguously derivable from the application as originally filed. Neither original claim 11 nor the embodiments disclosed from page 2, line 25 to page 3, line 19 of the description as originally filed contained any reference to the omitted feature.

- *Opponent*

There was no basis in the application as originally filed for feature F0.2. A method for producing styrenic polymer foam profiles was only originally disclosed together with the narrower density range of between 160 and 240 kg/m<sup>3</sup>. The only two embodiments concerning styrenic polymer foam profiles were disclosed from page 3, line 21 to page 4, line 26 of the description as originally filed in connection with the narrower density range. The broader density range of between 100 and 400 kg/m<sup>3</sup> was mentioned on page 5, but only in the context of a styrenic polymer foam, which differed from a foam profile in that it did not necessarily have edges. Also, the styrenic polymer foam embodiments described on pages 2 and 3 used different relative quantities of blowing agents, a further indication that there was no basis for replacing the density range in claim 1.

The reasoning set out by the opposition division on pages 6 to 8 of the impugned decision was adhered to for the lacking basis of feature F4 in the application as originally filed. Nucleation and foaming were not clearly distinguished as two different aspects. There was therefore no basis for deleting the feature of extending the foaming activity to lower temperatures caused by the physical blowing agent.

*Sufficiency of disclosure*

- *Patent proprietor*

The opposition division was correct in their finding that the skilled person would be able to reproduce the example of the patent without undue experimentation. The opponent failed to provide any evidence or persuasive arguments contesting this finding. Depending on the blowing agents used, the number of process parameters that could be changed was reduced. Referring to the declaration D12a, the generation of the same gas by the chemical and the physical blowing agents led to a difference in foaming at the exit of the die. The skilled person further understood the importance of nucleation as explained in the declarations D12 and D12a.

The declarations D12 and D12a also clearly stated that the process of claim 1 could be carried out by the skilled person, who could avail themselves of the description and their common general knowledge to establish which pressure and temperature to apply.

It was a completely different thing to say that the skilled person would not be prompted to add an injection port to the teaching of document D5 than to say that the skilled person would not know from their common general knowledge how to implement an injection port in the example of the patent. Besides, an injection port was already shown in Figure 1 of the patent.

Maybe the example of the patent description was not so specific, but it was not contradictory to the subject-

matter of claim 1. Sharp edges also covered very sharp edges. The skilled person would certainly be able to make foam profiles with very sharp edges having a radius smaller than 1 mm.

- *Opponent*

For there to be an initial foaming and a delay in the expansion of the physical blowing agent, it would be imperative that the gas released by the physical blowing agent be different from or have a different vapour pressure than the gas released by the chemical blowing agent. However, the materials listed in paragraphs [0045] and [0049] of the patent foresaw at the same time the use of CO<sub>2</sub> as physical blowing agent and a release of CO<sub>2</sub> from the chemical blowing agent. Hence, the invention was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

Secondly, feature F1.4 could not be carried out by the skilled person in the absence of any information on the pressure and temperature at which the components were supposed to be mixed in the extruder.

Further, insofar as the board held that the skilled person reading document D5 would be at a loss as how to inject a gaseous blowing agent into an extruder, these doubts should also carry over to the disclosure of the patent.

The requirement of feature F0.1 that the foam profile had very sharp elements of detail or edges having a radius of 1 mm or less was not disclosed in the sole example of the patent description. Insufficiency of disclosure must therefore be concluded.

*Inventive step*

- *Patent proprietor*

The opponent did not present an argument based on the problem-solution approach. Document D5 was not a suitable starting point for assessing inventive step of the claimed subject-matter according to auxiliary request 35. Contrary to the method of claim 1, the prior art document foresaw a physical blowing agent in the form of beads, which were mixed with a chemical blowing agent before being administered to an extruder. There was no reason to throw overboard this practice and opt for a separate injection port. The very first page of the chapter submitted by the opponent as CG1 pointed at the exceptional circumstances involved in producing bead-type foams. In fact, it would be impossible to arrive at the method of claim 1 without deviating from the framework laid down in document D5. Even if the skilled person opted for that path in an attempt to solve the objective technical problem of optimising the styrenic polymer foam producing process, the selection of the claimed amounts of blowing agents was not obvious. In the example in column 13, document D5 taught that a physical blowing agent at a quantity of 0.055 to 0.33 mol/kg and a chemical blowing agent at a quantity of 0.05 to 0.27 %wt yielded a profile with a density in the range between about 320 to about 961 kg/m<sup>3</sup>. Adapting these relative amounts would require hindsight. There was further no legal basis for disregarding the feature that the profiles had very sharp elements of detail or edges having a radius of 1 mm or less. Document D5 clearly did not disclose that feature. Also the Shore hardness D being 35 or more was very much a technical feature of the claim. Document D7

was a post-published patent application; it was not relevant in the present proceedings. Even though the values listed in the Table on page 8 of document D7 covered a wide range, only the first three results reflected a density lying within the range claimed in feature F0.2. The data sheets of Annexes 1 to 3 should not be admitted because they could have already been filed in the proceedings before the opposition division. Regarding Annex 1, it contained two different ranges under the heading "Dosage". The publication date of Annex 2 was unknown. Annex 3 was incomplete. There was no reason why the skilled person would carry out all the modifications proposed by these documents when starting from document D5.

Document D6 concerned a method for producing foam profiles containing polyethylene, ethylene copolymers and chlorinated polyethylene. It was not possible to extrapolate experimental observations made with a mixture of polyethylene and chlorinated polyethylene to polystyrene.

Also starting from document D10 the skilled person would not arrive at the subject-matter of claim 1 according to auxiliary request 35 without exercising an inventive step. The only teaching concerning the realisation of styrenic polymer foam profiles using injection of a physical blowing agent via a downstream injection port were in Examples 1 and 2. Example 1 disclosed a chemical blowing agent at a quantity of 2.15 %wt and a physical blowing agent at a quantity of 0.97 mol/kg, i.e. both outside the claimed ranges of features F1.2 and F1.3. Example 2 related to a foam profile with a density outside the range of feature F0.2. Also the chemical blowing agent was disclosed at a quantity outside the claimed range. Without



information on the exact type of physical blowing agent used, its quantity in mol/kg could not be determined. Furthermore, the term "jonc" used in document D10 had the meaning of a hollow section, tube or a retaining ring without necessarily including a sharp edge. The passages of document D10 referring to "arêtes vives" and "netteté voulu des arêtes" were taken out of their context.

- *Opponent*

When starting from document D5, the subject-matter of claim 1 according to auxiliary request 35 would have the distinguishing features F0.1', F1.3, F1.7, F2 and F4. Feature F1.2 was disclosed by document D5. Moreover, also the data sheet of Tracel NC 7155 ACR (Annexes 1 and 2) showed that it was known to dose the chemical blowing agent used in the example of the patent in a similar quantity as required by feature F1.2 to obtain fine foam structures. Annex 3 indicated that in a foaming process based on physical blowing agents the use of nucleating agents, such as active chemical blowing agents, was required to form a fine cell structure. Feature F5 was implicit, since it had been known for a long time that chemical agents cause initial foaming. Arguably, feature F4 did not constitute a real difference, as the shaping die described in column 4, lines 52 to 54 of document D5 could be regarded as a calibration system. Features F1.7 and F2 were well-known since a long time in the technical field of extruders. In particular feature F1.7, the injecting of a physical blowing agent through an injection port, had been common practice since decennia, as was corroborated by document D11 and documents CG1 to CG3. It was noted that the original application leading to the patent also provided the

possibility that liquid physical blowing agents would be fed to the extruder together with the premix. It was therefore obvious to implement feature F1.7, all the more so as document D5 already disclosed in column 11, lines 53 to 55 that gaseous blowing agents were injected directly in the extruder. So, features F0.1' and F1.3 were the only real differences. Selecting the amount of physical blowing agent was a matter of routine for the skilled person. The values required by feature F1.3 were arbitrary. The ranges overlapped with those known from document D5, so that the resulting density was implicitly disclosed from document D5. Regarding feature F0.1', an essential condition for obtaining profiles with very sharp edges was that the foam had particularly small cells. The skilled person was aware that small foam cells were achieved by incorporating a nucleating agent, such as a chemical blowing agent, into the composition. This was also explained in the bottom paragraph on page 14 of document D10. The relative amounts of chemical or physical blowing agents did not play a role in the formation of the very sharp edges with radius 1 mm or less. Proof of that was provided in document D7, which, in spite of its late publication, was considered as a written declaration from the hand of the patent proprietor on the relation between polystyrene foaming with sharp edges and the relative amounts of foaming agents used. Decision T 446/00 was cited in this context. The Table on page 8 of document D7 could be regarded as a set of comparative test results implying that polystyrenic foam profiles with very sharp edges having a radius of 1 mm or less and a density of preferably 200 to 250 g/l were achieved even if chemical and physical blowing agents were used of widely varying amounts lying partially outside the claimed ranges. Document D7 therefore confirmed the

absence of a surprising technical effect associated with the claimed amounts of blowing agents. In applying their common general knowledge, the skilled person would have adapted the amounts disclosed by document D5 in respect of the physical blowing agent in order to obtain a foam profile with very sharp edges having a radius of 1 mm or less. Alternatively, the skilled person would have turned to document D10, where a link was made on page 10, lines 16 to 26 between the sharpness of the profile, the use of a calibration device and a controlled foaming process. Regarding the first part of feature F0.1', it was reduced to an obvious selection. No technical effect was disclosed in the patent concerning a surface Shore hardness D of 35 or more.

Also starting from document D10 the skilled person would arrive at the subject-matter of claim 1 in an obvious manner. It was observed that document D10 referred to the terms "jonc" and "jonc profilé" on the same footing, and that sharp edges ("arêtes tranchantes") were disclosed.

For those reasons, the subject-matter of claim 1 according to auxiliary request 35 did not involve an inventive step.

## **Reasons for the Decision**

1. Admissibility of the opponent's appeal
  - 1.1 In their letter dated 30 January 2020 the patent proprietor contested - for the first time - the admissibility of the opponent's appeal. The board concurs with the findings in T 15/01 (OJ EPO 2006, 153,

point 1 of the Reasons) that the admissibility of an appeal can and has to be examined at every stage of the appeal procedure (see also T 198/15, point 1 of the Reasons; T 1668/07, point 2.2 of the Reasons). Unlike the position taken in T 670/09 (point 1.1.1 of the Reasons), an objection to admissibility of an appeal can therefore not be disregarded for the mere reason that it was raised at a late stage of the appeal proceedings.

- 1.2 For an appeal to be admissible it must meet, *inter alia*, the requirements of Article 108 EPC, third sentence, and Rule 99(2) EPC. The examination of whether these requirements are met has to be made on the basis of the statement setting out the grounds of appeal and of the reasons given in the contested decision.

Rule 99(2) EPC provides that in the statement of grounds of appeal the appellant shall indicate the reasons for setting aside the decision impugned, or the extent to which it is to be amended, and the facts and evidence on which the appeal is based. It is established case law that the arguments must be clearly and concisely presented to enable the board to understand immediately why the decision is alleged to be incorrect, and on what facts the appellant bases their arguments, without first having to make investigations of its own (see section V.A.2.6.3 a) of "Case Law" and T 573/09, point 1.1 of the Reasons, both referred to by the patent proprietor, see further T 220/83 of 14 January 1986, OJ EPO 1986, 249, point 4 of the Reasons).

Taking into account that the furnishing of a statement of grounds is a condition of the admissibility of the

appeal and not of it being well-founded, the grounds do not have to be conclusive in themselves and justify the setting aside of the decision impugned. The grounds must however enable the board to assess whether or not the decision is incorrect (J 10/11, point 2.3.2 of the Reasons).

- 1.3 In their statement setting out the grounds of appeal, the opponent challenged the reasoning of the contested decision in respect of all the grounds for opposition addressed therein. On pages 1 to 3 it was argued why the finding of the opposition division that the features F0.1 and F0.2 have a basis in the application as filed should be overturned. Subsequently, a detailed argumentation was given in support of the two objections raised against sufficiency of disclosure, which were dismissed by the opposition division. In particular, in the fifth paragraph of page 4 the opponent elaborated on the position taken by the opposition division with regard to the use of carbon dioxide as a physical blowing agent in combination with a chemical blowing agent generating carbon dioxide. From page 6 onwards the opponent argued why the opposition division's interpretation of the content of documents D5 and D10 was disputed, followed by an analysis of the obviousness of the feature related to the very sharp elements or edges. The argumentation contains various direct references to the contested decision, from which a causal relationship between the grounds of appeal and the findings of the contested decision can be derived. The board observes that the patent proprietor even explicitly confirmed on page 1 of their letter dated 10 October 2016 that the opponent engaged with the arguments of the opposition division in the case of inventive step.

- 1.4 The fact that the opponent, on some particular points, reverted to arguments already presented during the opposition proceedings does not *de facto* imply that the appeal is not adequately reasoned (cf. "Case Law", V.A. 2.6.6). Article 12(3) RPBA 2020 (which applies in the present case according to Article 25(1) and (2) RPBA 2020) requires the statement setting out the grounds of appeal and the reply to contain a party's complete case. It can therefore not be held against an opponent, who wishes to reverse the decision under appeal, that they present *all* the facts, arguments and evidence relied on, including those arguments that were rejected in the first instance proceedings. In this context, it must be emphasised that the opponent explicitly stated in the second paragraph on page 8 of their statement that some of the arguments submitted before the opposition division, whilst remaining valid for the discussion before the board, were not presented again in order to avoid useless repetitions.
- 1.5 Further, the board is not aware of any legal basis pursuant to which the repeated invoking of the person skilled in the art without citing correspondent pieces of evidence should have as a consequence that the appeal is found inadmissible. According to T 766/91, cited by the patent proprietor in this respect, evidence of general technical knowledge is indeed required if it is challenged by another party. Yet T 766/91 also rules that for the purposes of admissibility of the appeal it would be sufficient to state a fact and allege that it is general knowledge in the art concerned, without the need for referring to a particular publication (cf. point 8.1 of the Reasons).
- 1.6 As regards the request of the patent proprietor that the scope of the opponent's appeal should be limited to

the discussion of inventive step, the board points out that it is established case law that the admissibility of an appeal can only be assessed as a whole; an appeal is either admissible or inadmissible (cf. "Case Law", V.A.2.6.8).

1.7 In view of the above, the board is satisfied that the opponent's statement setting out the grounds of appeal enables its reader to establish the reasons why the decision is alleged to be incorrect so that it complies with Article 108, third sentence, and Rule 99(2) EPC. The opponent's appeal is thus admissible.

2. Admittance of auxiliary request 35

2.1 The patent proprietor filed a new set of claims as auxiliary request 35 in annex to their letter of 14 June 2021, i.e. ten days before the oral proceedings were actually held before the board. In the opponent's view, this request was late-filed and should not be admitted.

2.2 In a case as the present one, where a first summons to oral proceedings was notified before 1 January 2020, which according to Article 24(1) RPBA 2020 was the date of entry into force of the RPBA 2020, and a second summons to oral proceedings was notified after 1 January 2020 following the cancellation of the originally scheduled oral proceedings, the question arises which summons enters the condition imposed by Article 25(3) RPBA 2020 with respect to the application of the strict provision according to Article 13(2) RPBA 2020.

The board concurs with the positions taken in T 950/16 (point 3.2 of the Reasons) and T 1511/15 (point 3 of

the Reasons). In order to protect the legitimate expectation which parties may have had at the time of filing their submissions, the first summons must be decisive for the purpose of applying the transitional provision of Article 25(3) RPBA 2020. As a consequence, Article 13(2) RPBA 2020 is not applicable in the present case. Instead, Article 13 RPBA 2007 continues to apply. This was not disputed by the parties.

2.3 Under Article 13(1) RPBA 2007, the boards have discretion to admit and consider any amendment to a party's case after it has filed its grounds of appeal or reply. This discretion must be exercised in view of, inter alia, the complexity of the new subject-matter, the current state of the proceedings and the need for procedural economy. Article 13(3) RPBA 2007 imposes the further condition that amendments sought to be made after oral proceedings have been arranged may not be admitted if they raise issues which the board or the other party cannot reasonably be expected to deal with without adjournment of the oral proceedings.

2.4 In applying these provisions to the present case, the board is firstly satisfied that auxiliary request 35 involves simple amendments addressing only those issues found relevant in the board's communication. Concretely, by specifying that the styrenic foam profiles produced according to the method of claim 1 have "a surface Shore hardness D of 35 or more" in feature F0.1', the patent proprietor added precisely that feature from the bottom paragraph on page 20 of the description as originally filed, which was provisionally found to be inextricably linked to the disputed feature "very sharp elements of detail D or edges E having a radius of 1 mm or less" in point 19 of the board's communication. The only other amendment in



the claims of auxiliary request 35 is the addition of feature F5, which the board considered to be closely related to the step of performing an initial foaming of feature F3 (see point 21.1 of the board's communication). Hence, it cannot be denied that the amendments offer a prospect of success.

2.5 Regarding the requirement of procedural economy, the following is noted. At the oral proceedings, the patent proprietor convincingly demonstrated that the opponent's initial grievance on pages 2 and 3 of their statement setting out the grounds of appeal with the absence of the specific surface Shore hardness D in claim 1 had to be read in conjunction with the absence of another feature inextricably linked to the "very sharp elements of detail D or edges E having a radius of 1 mm or less", namely the melt flow index. Insofar as the board did not take issue with the absence of the melt flow index in its preliminary opinion, the focus of the initial objection against Article 123(2) EPC had indeed shifted during the appeal proceedings, so that there was a case for arguing that auxiliary request 35 was a reaction to unforeseeable developments in the previous proceedings which did not lie in the patent proprietor's responsibility. The board also takes into consideration that the opponent replied to the board's communication by letter dated 23 April 2021, submitting for the first time in the proceedings three documents CG1, CG2 and CG3 covering more than 600 pages.

2.6 As the amendments of auxiliary request 35 seem to successfully overcome the objections identified by the opponent and raised by the board in its preliminary opinion, no large investigative effort was expected on the part of the opponent or the board for dealing with the new subject-matter. Hence, admitting auxiliary

request 35 was unlikely to raise issues which would have required an adjournment of the oral proceedings.

2.7 The opponent cited two decisions in support of their request not to admit auxiliary request 35. Each of those, however, substantially differ from the present case. In T 1990/07 an auxiliary request was filed three days before the oral proceedings appointed by the board of appeal. It involved considerable amendments that were not clearly allowable and that appeared to introduce new issues (cf. points 6 to 9 of the Reasons). The board in T 1354/11 decided not to admit two auxiliary requests that were filed on the day of the oral proceedings in an attempt to overcome the board's objections (cf. point 11 of the Reasons).

2.8 For the reasons set out above, the board exercised its discretion under Article 13(1) RPBA 2007 and admitted auxiliary request 35.

### 3. Allowability of amendments

3.1 The opponent took issue with the replacement of the density range "between 160 and 240 Kg/m<sup>3</sup>" of original claim 1 by the broader range "between 100 and 400 Kg/m<sup>3</sup>" in feature F0.2 of claim 1.

The fourth paragraph on page 5 as well as the paragraph bridging pages 19 and 20 of the description as originally filed provide a basis for the broad density range. Yet these passages refer to "a styrenic polymer foam" whereas claim 1 concerns a method for producing a styrenic foam *profile*.

Considering that, for the purposes of Article 123(2) EPC, it must be established what the skilled person can

derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the documents as filed, the board is not persuaded that feature F0.2 extends beyond the content of the application as originally filed. The reason is that, throughout the description, the expressions "foam" and "foam profiles" are used interchangeably to depict the same subject-matter. The description of a first aspect of the invention on page 11, lines 15 to 25, for example, requires that a styrenic polymer foam is produced by a method comprising the steps of: "... (ii) extruding said mixture through a shaping tool in order to form a foam", even if such an extruded product would actually qualify as a "profile" according to the definition given in the paragraph bridging pages 10 and 11. As a further example, the bottom paragraph on page 19 refers to "profiles with sharp edges" and "[t]he styrenic polymer foam obtained" in the same context. The board further notes that nothing in the application as originally filed leads to believe that the production of a styrenic polymer foam profile would result in different density values when compared to the production of a styrenic polymer foam.

- 3.2 A further contentious issue was whether the deletion of some parts of original feature F4 (highlighted below by strike-through)

"(iv) passing said foam through a calibration system in order to form said styrenic polymer foam profile ~~while extending the foaming activity to lower temperatures where a stronger structural strength exists in the foam, wherein said extended foaming activity is caused by the physical blowing agent~~"

introduced subject-matter which extended beyond the content of the application as filed.

The step of passing the foam through a calibration system can be found in several passages of the application as filed. On page 2, lines 7 to 24, in the context of an optionally present calibrator, the physical blowing agent is said to "extend the foaming activity to lower temperatures where a stronger structural strength exists in the foam". The embodiment described in the paragraph bridging pages 3 and 4 essentially repeats the wording of original claim 1. Also the further embodiment on page 4, lines 19 to 26 links the calibrator to an extended foaming activity caused by the physical blowing agent. The detailed description on page 19, lines 8 to 27 and on page 22, lines 8 to 17, however, discloses the step of passing the foam through a calibration system without mentioning any extended foaming activity caused by the physical blowing agent. The passage on page 19, lines 8 to 10 also emphasises that the temperature control in the calibration system is optional. A further indication that the calibration step may be regarded in isolation from the extended foaming activity can be found in the general statement on page 5, lines 15 to 18 of the summary of the invention, namely that "the method of the first aspect may further comprise the step (iii) of passing the foam through a calibration system".

In the board's view, no convincing arguments have been brought that the amendment in feature F4 cannot be derived directly and unambiguously from the whole of the documents as originally filed.

- 3.3 As the opponent did not have any further objections against the allowability of the amendments, the board judges that the requirements of Article 123(2) EPC are met.
4. Sufficiency of disclosure
- 4.1 From paragraph [0038] onwards, the patent description contains several suitable options for the styrenic polymer composition, the chemical blowing agent and the physical blowing agent, which form the basic ingredients for producing a styrenic polymer foam profile according to claim 1. Concretely, paragraphs [0041] to [0052] give examples of materials preferably used for the different components: a mixture comprising 50 %wt of a first polystyrene having a melt flow index of 7.5 (e.g. Empera<sup>TM</sup> 153F) and 50 %wt of a second polystyrene having a melt flow index of 24 (e.g. Empera<sup>TM</sup> 156F) for the styrenic polymer composition, TRACEL<sup>TM</sup> NC 7155 most preferably in a quantity of 0.6 to 0.8 %wt for chemical blowing agent, and n-pentane most preferably in a quantity of  $1.0 \cdot 10^{-1}$  to  $1.2 \cdot 10^{-1}$  mol/kg for the physical blowing agent. One specific example of the claimed method is described in paragraphs [0064] and [0065]: the above styrenic polymer composition is fed with 1 %wt of TRACEL<sup>TM</sup> NC 7155 as a 70% masterbatch and talc as a nucleating agent as a premix via a material inlet of an extruder having a length to diameter ratio of 40, the premix is then mixed and heated above 135°C in the extruder in order to obtain a plasticized mixture before injecting 0.8 %wt of n-pentane under 250 bars through an entry port situated at a downstream position corresponding to a length to diameter ratio of 16. After gradually cooling while keeping the pressure in the extruder high enough to avoid expansion of the blowing agents, the

melt is passed through a die, it expands directly after exiting the die and is then passed in calibrators where it is further cooled. This results in a styrenic foam profile with a density of  $200 \text{ kg/m}^3$ , sharp edges and a smooth surface.

The skilled person further learns from paragraph [0050] of the description that n-pentane has a low vapour pressure of circa 56.6 kPa, which, as suggested in paragraph [0010], results in an extension of its foaming activity to temperatures as low as  $35^\circ\text{C}$ .

Furthermore, no concrete evidence is available to the board that the skilled person would be unable to extend the particular teaching of the description also to other materials indicated as variants in the passages identified above (cf. "Case Law", II.C.5.2). Nor has the opponent convincingly proved that this were the case and that some embodiments were unworkable in practice.

Consequently, the opponent's argumentation that the disclosure of the invention is insufficient in view of the material choices presented in the patent or the lack of pressure and temperature constraints cannot be followed by the board.

4.2 The further objections of insufficiency of disclosure raised by the opponent do not alter this conclusion.

Irrespective of the extent of common general knowledge that is available to the skilled person for the purpose of assessing sufficiency of disclosure, a cursory reading of paragraph [0063] of the patent description and a glance on the schematic cross-sectional view illustrated in Figure 1 would immediately lead the

reader of the patent to the conclusion that the port 7 serves to inject the physical blowing agent into the extruder. Whilst this may certainly not be the only way physical blowing agents can be administered, the board is unable to see how the skilled person could ignore this concrete teaching in the patent.

On the other hand, the fact that an example in the patent fails to mention a claimed feature does not immediately lead to the conclusion that the invention is not sufficiently disclosed. In the present case, the example described in paragraphs [0064] and [0065] of the patent indeed lacks any reference to a radius of 1 mm or less. Still, the board has little doubt that the skilled person would be able to put into practice the entire method of claim 1 by means of the information given in the example of paragraphs [0064] and [0065]. By properly configuring the shaping die and the calibrators foam profiles may be produced with corners or edges having a radius of 1 mm or less.

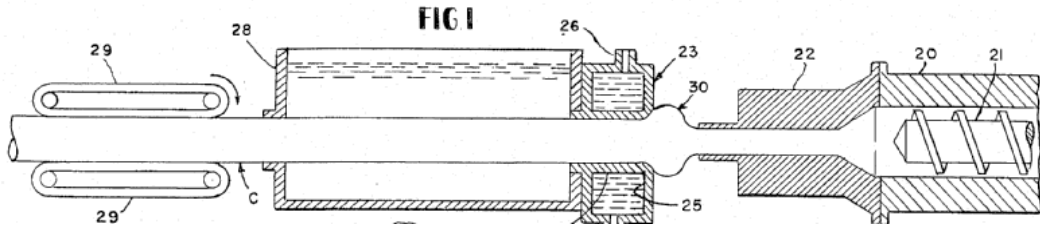
4.3 It follows from the foregoing that the invention is disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 83 EPC).

5. Inventive step

5.1 Starting from document D5

5.1.1 On the face of it, document D5 appears to be a suitable starting point for assessing inventive step. It concerns a method for producing a styrenic polymer foam profile by extruding a mixture of a styrenic polymer composition and a blowing agent through a shaping tool.

Figure 1 reproduced below illustrates, from right to left, the downstream portion of the extruder 20 provided with a nozzle 22 where an initial foaming takes place, a shaping die 23, a cooling tank 28 and a



pair of gripper belts 29. Columns 11 and 12 of document D5 explain that the styrenic polymer composition is foamed by the use of an expanding agent that can be either "normally gaseous", "normally liquid" or "normally solid" in which case the agent decomposes to generate a gas.

*Distinguishing features*

5.1.2 Nothing in document D5 leads to believe that the foam profiles produced according to the prior art method have a surface Shore hardness D of 35 or more. Nor is there any indication that the foam profiles have very sharp elements of detail or edges with a radius of 1 mm or less.

5.1.3 In column 13, lines 49 to 68 of document D5, the composition of a "highly preferred resin" for producing foamed structural profiles "having a density within the range of about 20 to about 60 pounds per cubic foot" (about 320 to about 961 kg/m<sup>3</sup>) is disclosed as follows:

*"A. about 10 to about 30 wt. percent of expandable polystyrene beads containing about 4 to about 8 wt. percent pentane, about 0.1 to about 0.5 wt. percent*



*of citric acid and up to about 0.4 wt. percent of sodium carbonate".*

The board concurs with the patent proprietor that this corresponds to a physical blowing agent (pentane) at a quantity of about  $5.5 \cdot 10^{-2}$  to about  $3.3 \cdot 10^{-1}$  mol/kg, taking into account that pentane has a molar weight of 72.15 g/mol. The chemical blowing agent (citric acid in combination with sodium carbonate) would be at a quantity of about 0.01 %wt (sodium carbonate is disclosed up to about 0.4 %wt) to about 0.27 %wt. A comparison with the requirements of claim 1 yields following conclusions: the density range has a small area of overlap with the upper part of the range claimed in feature F0.2, the chemical blowing agent range partially overlaps the lower part of the range claimed in feature F1.2 and the physical blowing agent range contains, but is much broader than the range claimed in feature F1.3.

Further, the above-cited passage of document D5 is clear in that the "normally liquid material" pentane is contained in expandable polystyrene beads. The *modus operandi* is better explained in column 12, lines 32 to 53 and from column 12, line 63 to column 13, line 11: pentane is incorporated together with the chemical carbon dioxide liberating agent into polymeric particles or beads added to the polystyrene reaction mixture; upon heating the resinous particles the pentane volatizes, the particles then melt and flow together in the form of a cellular polymeric structure. It must therefore be assumed that the physical and chemical blowing agents are supplied together with the styrenic polymer composition via the same material inlet of the extruder.

- 5.1.4 It cannot be derived from document D5 whether the mixture is gradually cooled down before it leaves the extruder. Instead, it appears that the foam is cooled only *after* having left the extruder, when passing through the annular chamber 25 of the shaping die 23 and through the water tank 28 (cf. Figure 1).
- 5.1.5 With regard to the calibration system, the opponent argued that the shaping die of document D5 fulfilled that function. However, nothing in the description of document D5 suggests that a calibration takes place. Even if, for the sake of the argument, it were assumed that the shaping die 23 were to carry out the calibration step, then the teaching of document D5 would not disclose the step of performing an initial foaming upon extruding the mixture through a shaping tool (feature F3).
- 5.1.6 Document D5 therefore fails to disclose features F0.1', F0.2, F1.2, F1.3, F1.7, F2 and F4.

*Objective technical problem*

- 5.1.7 In the board's view, it is unreasonable to separately consider each of the distinguishing features identified above in order to determine their individual technical effects. Rather, they seem to have a technical relationship based on functional reciprocity. According to paragraph [0017] of the patent, the deferred injection of the physical blowing agent has the advantage that the agent is more easily dissolved. Paragraph [0051] of the patent indicates that, in the presence of a chemical blowing agent, the use of a certain quantity of physical blowing agent allows control and adjustment of the speed of the foaming process and, in particular, of the expansion ratio.

Undeniably, the foaming process leading to the final product is also influenced by the relative amount of chemical blowing agent in the premix and by the cooling step. The calibration step not only serves to control the final shape of the foam profile, but, according to paragraph [0060] of the patent, further aids in controlling the expansion of the styrenic polymer foam. Hence, each of the distinguishing features contributes to a better control of the foaming process and to an improvement of the properties of the resulting foam product.

In view of the foregoing the objective technical problem can be formulated as optimising the process and the properties of the obtained foam.

*Obviousness*

- 5.1.8 Regarding feature F1.7, the opponent argued that the skilled person would have adapted the example of document D5 in view of the suggestion in column 11, lines 53 to 55 by replacing the normally liquid blowing agent pentane by a gaseous material under pressure. The board disagrees. Without denying that the practice of injecting blowing agents into an extruder through a separate injection port downstream from the material inlet was well-known in the art at the filing date of the patent, the implications of implementing that practice would have been significant. Following the logic of the opponent, replacing pentane by, for example, carbon dioxide would have meant rethinking the practice of supplying the polystyrene composition and the combination of citric acid and sodium carbonate in the form of beads to the extruder. Clearly, the beads are intended for mixtures having "normally liquid" and/or "normally solid" agents only (see column 12, lines

15 to 18, lines 35 to 41 and lines 63 to 68). The use of carbon dioxide would have also required a reassessment of the relative quantities of both the physical blowing agent and the chemical blowing agent. Finally, there is no saying whether the density of the resulting foam profile would have lied anywhere near the claimed range. It is therefore not clear to the board why the skilled person would have turned their back on the information disclosed in the example of document D5 and made the leap to an alternative solution - based on an isolated passage in the same document - without an actual promise of optimising the process and the properties of the obtained foam.

5.1.9 In this context, the opponent has also argued that the quantities of the parameters were arbitrary. The board cannot accept this argument. It is common ground in the field of foam extrusion that the quantity at which a blowing agent is administered to a polymer composition is fixed beforehand in function of its intended effect. This is, for example, illustrated by the data sheet of the chemical blowing agent Tracel NC 7155 submitted by the opponent as Annex 1 ("Dosage - foam extrusion" vs. "Dosage - nucleation"). In the case of document D5 where chemical and physical blowing agents are used in combination, the relative quantities would be all the more critical as the interaction of the blowing agents is ultimately responsible for the foam cell growth. Hence, the combination of the individual parameters of features F0.2, F1.2 and F1.3 cannot be reduced to a mere routine optimisation of the values disclosed in the example of document D5.

5.1.10 Nor is the board convinced that either of documents D6, D10 or any of the Annexes 1 to 3 offers a solution to the objective technical problem, which, when applied by

the skilled person to the method known from document D5, would have resulted in the subject-matter of claim 1 in an obvious manner. In this context, the question to be answered is not whether the individual elements of such a combination were known or obvious from the prior art, but whether the state of the art would lead the skilled person to this particular combination.

The patent proprietor correctly pointed out that document D6 is directed to the production of an *ethylenic* polymer foam rather than a *styrenic* polymer foam. Moreover, instead of pentane, isobutane is preferably used as a physical blowing agent in each of Examples 3 to 5, which result in a foam profile with a density (29 kg/m<sup>3</sup>, 25 kg/m<sup>3</sup> resp. 38 kg/m<sup>3</sup>) that lies well below the lower limit of the range claimed in feature F0.2.

Unlike with document D6, the prior art method disclosed in document D10 is aimed at producing styrenic polymer foam profiles. While document D10 foresees blowing agents that are similar to the ones used in document D5, the relative quantities of the blowing agents according to Example 1 on page 16 lie outside the ranges claimed in features F1.2 and F1.3: citric acid and sodium bicarbonate at a total quantity of 2.15 %wt (vs. 0.1 to 1.5 %wt), iso-pentane at a quantity of 0.97 mol/kg (vs. 0.09 to 0.13 mol/kg) assuming a molar weight of 72.15 g/mol. For those reasons, adopting the solution known from document D10 would not have yielded a method for producing a foam profile according to claim 1.

Annexes 1 and 2 were submitted by the appellant in support of the argument that the chemical blowing agent Tracel NC 7155 - also used in the example of the patent

in suit - was known to be used in the art for achieving fine foam structures with a dosage corresponding to that of feature F1.2. Annex 3, on the other hand, was presented as evidence of the combined use of physical and chemical blowing agents in a foaming process. However, none of these documents alludes to the amount of a physical blowing agent that should be administered when producing a styrenic polymer foam profile (feature F1.3).

5.1.11 Also the argument of the opponent that, based on the content of the Belgian patent D7, the individual amounts of blowing agents would be well within the reach of the skilled person wishing to obtain edges having a radius of 1 mm or less, does not convince the board. Not only does document D7 not form part of the state of the art according to Article 54(2) EPC, it cannot be regarded as an account of the common general knowledge in the art prior to the filing date of the patent. The mere fact that patent proprietor of document D7 is also the proprietor of the patent under dispute does not mean that the content of the post-published document has evidential value which can be used to substantiate an allegation of obviousness. Decision T 446/00, cited by the opponent, refers to the unexplained change of position of a patent proprietor between an initial statement and subsequently filed requests (cf. point 4.1 of the Reasons); it is not relevant to the present case.

5.1.12 Hence, the subject-matter of claim 1 according to auxiliary request 35 does not lack an inventive step when starting from document D5 (Article 56 EPC).

5.2 Starting from document D10

5.2.1 There was no dispute between the parties that document D10 is a suitable starting point for assessing the inventive step of the claimed subject-matter. Example 1 described in the paragraph bridging pages 16 and 17 of document D10 concerns a method for producing a styrenic polymer foam profile with a density of  $110 \text{ kg/m}^3$  by mixing a styrenic polymer composition and a chemical blowing agent, introducing the premix via a material inlet of an extruder and administering a physical blowing agent under pressure through an injection port downstream from the material inlet. The resulting mixture is gradually cooled down in the extruder and is extruded through a shaping tool before passing through a calibration system.

5.2.2 The subject-matter of claim 1 according to the main request differs from the method disclosed by document D10 by feature F0.1' and by the quantities of the respective blowing agents claimed in features F1.2 and F1.3.

5.2.3 As was indicated in point 5.1.7 above, the technical effect of using a certain quantity of physical blowing agent is that it allows control and adjustment of the speed of the foaming process, in particular of the expansion ratio (cf. paragraph [0051] of the patent). It is credible to also credit the specific quantity of chemical blowing agent with an improved control of the foaming process.

The objective technical problem starting from document D10 is therefore formulated as to improve the control of the foaming process.

5.2.4 As was set out above, both the chemical and the physical blowing agents of Example 1 of document D10 are administered in a quantity that lies far above the upper limit of the ranges claimed in feature F1.2 and F1.3. Even the lower limit 3% of the broader range disclosed on page 14 of document D10 (corresponding to 0.416 mol/kg in the case of iso-pentane and assuming a molar weight of 72.15 g/mol) does not come close to the claimed range of between 0.09 to 0.13 mol/kg. In the absence of any reason for digressing from the values disclosed in document D10, let alone a promise of improving the control of the foaming process, the person skilled in the art would not have been prompted to adapt the quantity of chemical blowing agent at the same time as the quantity of physical blowing agent while keeping the density of the foamed profile within the range of feature F0.2, all the more so since none of the other documents submitted by the opponent discloses quantities in combination with a density that fall within the claimed ranges (see also point 5.1 above).

5.2.5 The opponent has therefore not convinced the board that the subject-matter of claim 1 according to auxiliary request 35 does not involve an inventive step when starting from document D10 (Article 56 EPC).

5.3 Claim 11

In the absence of any further objections regarding the subject-matter of claim 11 according to auxiliary request 35, the board's findings set out in points 5.1.12 and 5.2.5 above also apply to the product claim.



#### 5.4 Conclusion on inventive step

In view of the foregoing, the board concludes that the requirements of Article 56 EPC are met.

#### 6. Remittal

Regarding the adaptation of the description to the claims of auxiliary request 35, the board takes the view that the required amendments to the description would be of not inconsiderable scope.

The parties did not object to a remittal.

Under these circumstances, the board, noting that, in the context of Article 11 RPBA 2020, remittal of a case for adaptation of the description is not a remittal for "further prosecution" (see document CA/3/19, section VI, Explanatory remarks on Article 11, second paragraph; see also Supplementary publication 2 to OJ EPO 2020), such that no "special reasons" need to be present, decides to exercise its discretion to remit the case to the opposition division under Article 111(1) EPC for the description to be adapted to the claims found allowable.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of claims 1 to 11 according to auxiliary request 35 filed with letter dated 14 June 2021 and a description and drawings to be adapted.

The Registrar:

The Chairman:



N. Schneider

P. Lanz

Decision electronically authenticated