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**Datasheet for the decision
of 9 February 2022**

Case Number: T 2384/16 - 3.2.05

Application Number: 11710847.2

Publication Number: 2550154

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B29D23/00, B32B1/08, B32B5/02,
B32B27/28, B29K71/00,
B32B27/12, B29C71/02

Language of the proceedings: EN

Title of invention:

Method of producing [sic] a composite pipe and such a composite pipe

Patent Proprietor:

Victrex Manufacturing Limited

Opponent:

Evonik Operations GmbH

Relevant legal provisions:

EPC R. 80, 106
EPC Art. 83, 84, 123(2), 123(3), 52(1), 56
RPBA Art. 12(4)

Keyword:

Amendment occasioned by ground for opposition (yes)
Amendments - extension beyond the content of the application
as filed (no) - broadening of claim (no)
Sufficiency of disclosure - main request (yes) - undue burden
(no)
Claims - clarity - main request (yes)
Inventive step - main request (yes)
Late-filed facts - submitted with the statement of grounds of
appeal - admitted (no)
Late-filed evidence - submitted with the statement of grounds
of appeal - admitted (no)
Objection in respect of a procedural defect (dismissed)

Decisions cited:

G 0009/91, G 0003/14, T 1685/07, T 2102/08, T 1786/16



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Case Number: T 2384/16 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 9 February 2022

Appellant: Evonik Operations GmbH
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
16 August 2016 concerning maintenance of the
European Patent No. 2550154 in amended form.**

Composition of the Board:

Chairman P. Lanz
Members: M. Holz
C. Brandt

Summary of Facts and Submissions

- I. The opponent appealed against the interlocutory decision of the opposition division in which, account being taken of the amendments made by the patent proprietor during the opposition proceedings, European patent No. 2 550 154 (the "patent") and the invention to which it related were found to meet the requirements of the EPC.
- II. On 21 May 2021, the parties were summoned to attend oral proceedings on 9 February 2022.
- III. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal as applicable from 1 January 2020 (RPBA 2020, see OJ EPO 2021, A35), issued on 17 December 2021, the parties were informed of the board's provisional opinion.
- IV. Oral proceedings before the board were held by videoconference on 9 February 2022.

During the oral proceedings, the appellant submitted the following objection pursuant to Rule 106 EPC:

"Die Beschwerdekammer hat in der mündlichen Verhandlung vom 9.2.2022 den Vortrag der Einsprechenden in der Beschwerdebegründung zur mangenden [sic] erfinderischen Tätigkeit der Patentansprüche 1 und 9 des Hauptantrages nicht zugelassen wegen eines Verstoßes gegen Art. 12(4) 2007 [sic] der Verfahrensordnung der Beschwerdekammern. Dieser Vortrag stützt sich auf die Kombination der Dokumente D1 und D11 bzw. D1 und Absatz 4 des Patentes.

Hiergegen wendet sich unser Einwand nach R. 106 EPÜ.

Wir sind der Meinung, dass es eine unzulässige Beschränkung des rechtlichen Gehörs der Beschwerdeführerin im Beschwerdeverfahren ist, wenn diese Einwände nicht zugelassen werden. Dokument D11 und Absatz 4 des Patentes wurden bereits in der ersten Instanz im Verfahren bei der erfinderischen Tätigkeit diskutiert. Das Dokument D11 wurde mit Schreiben vom 20.05.2016 eingereicht und inhaltlich auf S.2 diskutiert. Absatz 4 des Patentes wurde in der Einspruchsbegründung S.2 oben, im Schreiben vom 21.10.2015, S. 6 und in der mündlichen Verhandlung vor der Einspruchsabteilung bereits erwähnt."

Or, in English:

"In the oral proceedings on February 9, 2022, the Board of Appeal did not allow the opponent's submission in the statement of grounds of appeal regarding the lack of inventive step of claims 1 and 9 of the main request because of a violation of Art. 12(4) 2007 of the Rules of Procedure of the Boards of Appeal. This submission is based on the combination of documents D1 and D11 or D1 and paragraph 4 of the patent.

Our objection under R. 106 EPC is directed against this.

We believe that not admitting these objections constitutes an undue restriction of the appellant's right to be heard in the appeal proceedings. Document D11 and paragraph 4 of the patent have already been discussed in the first-instance proceedings regarding inventive step. Document D11 was submitted in a letter dated May 20, 2016 and its content was

discussed on page 2. Paragraph 4 of the patent has already been mentioned in the notice of opposition, top of p. 2, in the letter dated October 21, 2015, p. 6, and in the oral proceedings before the opposition division." (translation by the board)

- V. The documents submitted during the opposition proceedings and cited during the appeal proceedings include the following:

D1: WO 99/67561 A1

D5: JP H02-59330 (A)

D11: Conference paper "Thermoplastic Composite Pipe: Analysis and Testing of a Novel Pipe System for Oil & Gas", ICCM17 Edinburgh

D14: "Crystallinity in Poly(Aryl-Ether-Ketone) Plaques Studied by Multiple Internal Reflection Spectroscopy", Polymer Bulletin 11, 1984, 433-435

- VI. The following documents were filed by the appellant with the statement of grounds of appeal:

D15: WO 2006/059220 A2

D16: Conference programme for 31 July 2009, ICCM17 Edinburgh

- VII. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed (main request). As an auxiliary measure, the respondent requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims

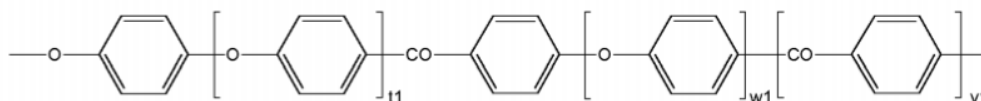
of one of auxiliary requests 1 to 5 as filed together with the reply to the appeal dated 2 May 2017.

VIII. Claim 1 of the main request reads:

"1. A method of producing a composite pipe which comprises:

(i) selecting a pipe P1 comprising a first polymeric material,

wherein the first polymeric material is of formula (XX)



where t_1 and w_1 independently represent 0 or 1 and v_1 represents 0, 1 or 2; and wherein the first polymeric material has a crystallinity of less than 25% in an outer region of the pipe P1;

(ii) overlaying the selected pipe P1 with a reinforcing means (4),

wherein the reinforcing means comprises a second polymeric material of formula XX, and a fibrous material, and

(iii) subjecting the outer region of pipe P1 to heat so the first polymeric material of the outer region re-crystallises;

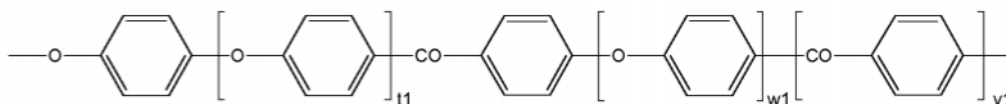
wherein the reinforcing means (4) is heated prior to, during and/or after it has been contacted with pipe P1 so that the second polymeric material of the reinforcing means is in a melted state at some stage after contact with pipe P1, and

wherein the pipe P1 is heated by contact with the reinforcing means, or by a heating means used to heat the reinforcing means during or after overlaying the

pipe P1 with the reinforcing means, thereby causing the reinforcing means to bond to pipe P1, and causing the crystallinity of the outer region of pipe P1 to increase, thereby to define the composite pipe."

Claim 9 of the main request reads:

"9. A composite pipe comprising a pipe P2 comprising a first polymeric material, wherein the first polymeric material is of formula (XX)



where t_1 and w_1 independently represent 0 or 1 and v_1 represents 0, 1 or 2; and wherein the first polymeric material has a crystallinity of greater than 25% in an outer region of the pipe P2, said pipe P2 (2) being overlaid with a reinforcing means (4), wherein said pipe preferably has a length of at least 50m; wherein said reinforcing means comprises a second polymeric material of formula XX and a fibrous material; and wherein the second polymeric material is fused with the first polymeric material to bond the reinforcing means to the pipe P2."

IX. The parties' arguments relevant to this decision may be summarised as follows.

(a) Objection under Rule 80 EPC

(i) Appellant

In the appellant's view, the insertion of feature (iii) into claim 1 of the main request contravenes Rule 80 EPC as this amendment was not occasioned by a ground for opposition. Contrary to the respondent's view, a ground for opposition under Article 100(b) EPC could not be remedied by a claim amendment.

(ii) Respondent

According to the respondent, in the notice of opposition, the opponent had argued that the invention as defined in claim 1 as granted was not sufficiently disclosed. By inserting feature (iii), claim 1 was narrowed to correspond to subject-matter that was clearly sufficiently disclosed. Therefore, this amendment addressed a ground for opposition pursuant to Article 100(b) EPC.

(b) Objections under Article 84 EPC

(i) Appellant

According to the appellant, firstly, a lack of clarity arose due to the wording "*wherein the first polymeric material has a crystallinity of less than 25% in an outer region of the pipe P1*" in claim 1. While the term "outer region" was already present in claim 1 as granted, this term was used in claim 1 of the main

request in a different context, such that an examination of this wording was possible in view of the decision G 3/14. In claim 1 as granted, the size of the outer region and its parameters did not play a role, while claim 1 of the main request attributed "*a crystallinity of less than 25%*" to the outer region. However, claim 1 of the main request left open how far the outer region reached in, for example, micrometres or millimetres. The same applied to claim 9 of the main request.

Secondly, the wording of "*the second polymeric material of the reinforcing means is in a melted state at some stage after contact with pipe P1*" rendered claim 1 unclear. It was not evident from this wording at what point in time the second polymeric material was to be in a melted state.

Thirdly, a further lack of clarity was present in claim 1 due to the wording "*subjecting the outer region of pipe P1 to heat*" since it was not clear to what degree the outer region had to be heated.

(ii) Respondent

Regarding the first point raised by the appellant, the respondent considers that the term "outer region" was broad but not ambiguous. Moreover, this term had been present in claim 1 as granted, and its re-use in claim 1 of the main request made no change to its meaning. Hence, the case law established in decision G 3/14 applied in that the clarity of a term already present in a granted claim should not be subject to an objection for lack of clarity in opposition or opposition appeal proceedings.

Regarding the second point raised by the appellant, the wording "at some stage" was broad but not ambiguous. In the absence of the specification of "at some stage", there was potentially ambiguity as to whether the melted state must be immediate upon contact. This specification, however, taken from the application as filed, removed such ambiguity and made it clear that the molten state could also be present sometime after contact.

(c) Objections under Article 123(2) EPC

(i) Respondent

Regarding the objections raised by the appellant against claims 1 and 9 under Article 123(2) EPC, the respondent referred to the Reasons for the decision under appeal.

In the decision under appeal, the opposition division summarised the amendments to claim 1 of the main request as follows (see point 3.2 of the Reasons; underlining added by the board):

"In the present case, independent method claim 1 of the main request is a combination of original claims 1 and 12, wherein claim 12 was directly dependent on claim 1. Further, claim 1 of the main request contains the following additional features:

- 'wherein the reinforcing means comprises a second polymeric material of formula XX, and a fibrous material' (feature A), and*
- '(iii) subjecting the outer region of pipe P1 to heat so the first polymeric material of the outer region re-crystallises; wherein the reinforcing means (4) is heated prior to, during and/or after*

it has been contacted with pipe P1 so that the second polymeric material of the reinforcing means is in a melted state at some stage after contact with pipe P1, and wherein the pipe P1 is heated by contact with the reinforcing means, or by a heating means used to heat the reinforcing means during or after overlaying the pipe P1 with the reinforcing means, thereby causing the reinforcing means to bond to pipe P1' (feature B).

Alternatively, independent claim 1 of the main request may be regarded as a combination of original claim 1 and the following additional features:

- 'the first polymeric material is of formula (XX) where t1 and w1 independently represent 0 or 1 and v1 represents 0, 1 or 2' (feature C),*
- 'wherein the reinforcing means comprises a second polymeric material of formula XX" [sic], and a fibrous material' (feature A), and*
- '(iii) subjecting the outer region of pipe P1 to heat so the first polymeric material of the outer region re-crystallises; wherein the reinforcing means (4) is heated prior to, during and/or after it has been contacted with pipe P1 so that the second polymeric material of the reinforcing means is in a melted state at some stage after contact with pipe P1, and wherein the pipe P1 is heated by contact with the reinforcing means, or by a heating means used to heat the reinforcing means during or after overlaying the pipe P1 with the reinforcing means, thereby causing the reinforcing means to bond to pipe P1' (feature B)."*

With regard to feature A, the opposition division explained (see point 3.3 of the Reasons) that claim 1

of the main request defined a reinforcing means comprising a polymeric material of formula (XX) as a first material and a fibrous material as a second material. In the description as filed, these features were both presented as being of the highest order of preference for the first material (see page 19, lines 29 to 31; the board notes that the second polymeric material of claim 1 corresponds to the "first material" described in this passage of the description, see page 19, lines 17 to 19) and as the highest order of preference for the second material (see page 20, lines 6 and 7). For a skilled person, the combination of the two features of respective highest order of preference was disclosed directly and unambiguously in the application as filed. Furthermore, this disclosure was presented in the general part of the description, and it was therefore combinable with original claim 1.

With reference to feature B, the opposition division set out (see point 3.4 of the Reasons) that the passage on page 19, line 7 to page 23, line 18 of the description as filed related to the composition and manufacturing of the reinforcing means as well as to its joining with a pipe. A skilled person would have read that passage as a whole since the entire passage dealt with the reinforcing means. The skilled person therefore understood that the heating and melting of a reinforcing means described on page 20, lines 26 to 33 also referred to the heating and melting of the reinforcing means comprising a first material and a second material described on page 19, lines 17 to 19 and ultimately also to the heating and melting of the preferred reinforcing means comprising a (second) polymeric material of formula XX and a fibrous material (see page 19, lines 29 to 30; and page 20, lines 6 and 7). These features were further presented in the

general part of the description and were therefore combinable with original claim 1.

Regarding feature C, the opposition division argued (see point 3.5 of the Reasons) that the feature that the first polymeric material was of formula (XX), where t_1 and w_1 independently represented 0 or 1 and v_1 represented 0, 1 or 2, was presented in the general part of the description as a preferred material from the especially preferred class of polymeric materials (see page 16, lines 7 to 14 in combination with page 14, lines 18 to 20). In accordance with established practice at the EPO, such disclosure of an especially preferred material was combinable in a direct and unambiguous manner with the other parts of the original disclosure and therefore with original claim 1 and features A and B.

In point 3.6 of the Reasons, the opposition division explains that claim 9 according to the main request was a combination of claims 21 and 22 as filed, with claim 22 being directly dependent on claim 21. Furthermore, amended claim 9 contained the following additional features:

*"the first polymeric material is of formula (XX) where t_1 and w_1 independently represent 0 or 1 and v_1 represents 0, 1 or 2" (feature C),
"wherein the reinforcing means comprises a second polymeric material of formula XX, and a fibrous material" (feature A),
"wherein the second polymeric material is fused with the first polymeric material to bond the reinforcing means to the pipe P2" (feature B').*

The opposition division held that the same reasoning set out for features A and C of claim 1 of the main request applied *mutatis mutandis*. Moreover, the reasoning regarding feature B of claim 1 applied *mutatis mutandis* to feature B'. Additional support was found on page 21, lines 1 and 2 and page 25, lines 1 to 3 of the description as filed.

Moreover, the respondent finds the appellant's line of argument regarding claims 4, 5 and 8 unconvincing. Taking the example of claim 4, in the respondent's view, the skilled person read claim 20 as filed and saw that it could be combined with any of the preceding claims, such as claim 6. Claim 6 was read and could be combined with claim 5, and claim 5 was read as being combinable with claim 4. Hence, the skilled person arrived at the subject-matter of present claim 4 by following the guidance of the original claims.

(ii) Appellant

With regard to feature A of claim 1, the appellant argues that in original claim 1 the reinforcing means was not specified. The opposition division's reference to page 19 only showed that a reinforcing means was selected comprising a first material and a second material (see page 19, lines 17 to 19). In the following section, the first material was then described in a list of different polymers including, *inter alia*, the polymer of the general formula (XX). In the second paragraph on page 20, it was stated that a fibrous material could also be used in the reinforcing means. However, in the appellant's view, a combination of the polymer of the general formula (XX) and the fibrous material was not disclosed as being particularly preferred. In contrast, this combination

was only described on page 21, lines 9 to 12. There, however, it was indicated that the reinforcing means may comprise a polymer of formula (XX), for example polyetheretherketones, and 20-40 wt% glass fibres. Yet, in claim 1, the fibres were not specified.

With reference to feature B, the appellant is of the opinion that the passage on page 20, lines 25 ff describing that the reinforcing means may be heated prior to, during and/or after it has been contacted with the pipe P1 did not specifically refer to the outer region of the pipe P1 as was the case in feature B of claim 1 of the main request.

Moreover, the passage on page 20, line 34 to page 21, line 2 of the description as filed stated that, preferably, the first material was in a melted state at some stage after contact with pipe P1, suitably so the reinforcing means could bond to pipe P1. However, in this passage, the link between the reinforcing means being heated prior to, during and/or after it has been contacted with pipe P1 and the second polymeric material of the reinforcing means therefore being in a melted state, as required by feature B, was missing. Nor was this link derivable from the corresponding passages on pages 20 and 21.

A further objection was raised by the appellant relating to the part of feature B of claim 1 according to which the pipe P1 was heated by contact with the reinforcing means or by a heating means used to heat the reinforcing means during or after overlaying the pipe P1 with the reinforcing means, thus causing the reinforcing means to bond to pipe P1. According to the appellant, this feature was not derivable from the passage cited by the opposition division. Page 21,

lines 6 to 9 only described that heat from the extrudate would during and/or after being overlaid on the pipe P1 be transferred to the pipe P1 to cause the crystallinity of the outer region of pipe P1 to increase. However, it was then also said that the reinforcing means for such an embodiment was a polymer of formula (XX) with glass fibres in the range from 20 to 40% by weight. The latter feature was, however, not included in the claim.

Regarding feature C, the appellant explains that feature C related to the concretisation of the first polymeric material as a polymeric material of the general formula (XX). The description of the polymeric materials for the pipe P1 ran from page 7, second paragraph to page 17, second paragraph of the application as filed. This passage included numerous embodiments also described as preferred, for example, on page 11, line 22, where it was stated that the polymeric chain of the polymeric material did not include a sulphur moiety and that G represented a direct link. On page 13, line 9, a polymeric material of the general formula (IV) was regarded as particularly preferred. In addition, on page 14, starting on line 17, preferred classes of polymeric materials were described. Overall, these were polymeric materials of types A, B, C, D, E and F. All of these materials were described as preferred. On page 16, in the passage from line 6 to 14 cited by the opposition division, the polymeric material of the formula (XX) was described. Yet, all of these polymers were described as preferred, and it could not be seen that the polymeric material of the formula (XX) was a particularly preferred polymeric material compared to the other preferred embodiments. Therefore, feature C

was not derivable from the application as filed, in particular, in combination with features A and B.

Regarding claim 9, according to the appellant, the same objections in view of features A and C applied.

Moreover, while feature B' of claim 9 was disclosed individually on page 21, lines 1 and 2 and page 25, lines 1 to 3, the same objection as for claim 1 applied, namely that the combination of features of claim 9 of the main request could not be found in the application as filed. For example, in claim 9, the crystallinity of the outer region of the pipe P2 was defined as being greater than 25%, whereas the corresponding passage on page 24, second paragraph specified that the crystallinity of the inner surface was preferably at least 25% and of the outer surface preferably 25%. However, the crystallinity of an inner surface of the pipe P2 was not specified in present claim 9. Furthermore, the crystallinity indicated on page 24 related to polyetheretherketone and not to the polymeric material according to the formula (XX).

The appellant raises further objections under Article 123(2) EPC against dependent claims 4, 5 and 8 of the main request. In its view, for example, even if claim 4 were considered to be a combination of claims 4, 5, 6 and 20 of the claims of the application as originally filed, these claims originally contained a reference "to any preceding claim". The specific combination of the features of original claims 4, 5, 6 and 20, however, could not be derived from the original claims. Also, the description of the application as originally filed did not contain a direct combination of these features.

(d) Objections under Article 123(3) EPC

(i) Appellant

Claim 1 of the main request involved an extension of the scope of protection compared to claim 1 as granted in view of feature (i). The feature

"selecting a pipe P1 having an outer region comprising a crystalline or crystallisable polymeric material having a crystallinity of less than 25%"

as included in granted claim 1 was to be interpreted as follows. The specification of the crystallinity related to the polymeric material of the pipe P1, such that the pipe contained a crystalline or crystallisable polymeric material with a crystallinity of at least 25%. The cited feature wording was not limited to the outer region (as considered by the opposition division). The wording *"having an outer region"* in feature (i) of claim 1 as granted was necessary to better define process step (ii). Claim 1 therefore addressed the manufacturing of a composite pipe that had a pipe P1 made of a crystalline or crystallisable polymeric material with a crystallinity of less than 25%. This also made sense to the skilled person since the composition of the pipe P1, which was a pipe made of a plastic material, needed to be defined in the claim. It made little sense to only define the outer region of the pipe P1 and leave open the inner region. The entire description of the original application also related to the polymeric material for the pipe P1, as could be seen, for example, on page 7, lines 1 and 2,

where it was stated that the pipe P1 preferably consisted of a polymeric material.

In contrast to this definition in claim 1 as granted, feature (i) of claim 1 of the main request only defined that the first polymeric material had a crystallinity of less than 25% in an outer region of the pipe P1. Consequently, the remainder of the pipe P1 could have a different crystallinity which was not defined. This represented an extension of the scope of protection as compared to granted claim 1, thus violating Article 123(3) EPC. The same applied for claim 9.

(ii) Respondent

In its defence against the appellant's objections under Article 123(3) EPC, the respondent refers to point 4 of the Reasons for the decision under appeal. There, the opposition division, *inter alia*, took the view that granted claim 1 only related to the crystallinity of a first polymeric material in the outer region of the pipe and allowed the presence of a second or even further material(s) having a crystallinity of more than 25% in that outer region. This was also the case for claim 1 of the main request. The same line of argument applied to claim 9 of the main request.

(e) *Objections under Article 83 EPC*

(i) Appellant

Firstly, claim 1 of the main request contained the feature that the selected pipe P1 was overlaid with the reinforcing means and the crystallinity of the outer region of the pipe P1 was increased by heating the reinforcing means, thus increasing the crystallinity of

the pipe P1. However, in claim 1, neither the temperature nor the duration of this treatment was indicated. In addition, there was also no indication of cooling in the claim or the rate of temperature reduction during cooling. Consequently, claim 1 defined the problem but did not specify how exactly the increase in crystallinity took place in the outer region. From the skilled person's point of view, the situation was even more complex since, according to the claim, the heating was not only to cause the crystallinity of the outer region of pipe P1 to increase but also to cause the reinforcing means to bond to pipe P1. Finding appropriate heating and cooling parameters therefore required undue experimentation. Furthermore, the description did not contain any precise information in this regard, and the patent did not contain a single example in which the manufacture of a composite pipe as described in claim 1 was explained. Therefore, also in view of the description, it was not possible for a person skilled in the art to employ the claimed method without undue burden.

Secondly, the measurement of the crystallinity was part of the claimed subject-matter since, both in claim 1 and claim 9 of the main request, the crystallinity was specified as a feature of the plastic material or the plastic pipe. The claims, however, did not contain any information on how to measure the crystallinity. The patent referred, in paragraph [0010], to the method described in document D14. According to this method, the crystallinity was determined by FTIR measurement on the surface or along the thickness of the test specimen. However, document D14 described on page 435, last paragraph that, with this method, it was only possible to measure the crystallinity of polymers in a

thickness range of 1 to 2 μm from the surface. The corresponding layers of the pipes of the patent were, however, much thicker. In paragraph [0016] of the patent, it was described that the thickness was up to 100 μm . The specified measurement method was therefore not suitable for determining the crystallinity of the polymers in pipes with a layer thickness of over 2 μm . Thus, the skilled person was not in a position to determine the polymeric material for the pipe P1. Additionally, the skilled person could not carry out the method regarding an increase in the crystallinity since they could not measure this increase as compared to the initial materials. For this reason, too, the invention could not be carried out.

(ii) Respondent

With regard to the objections under Article 83 EPC, the respondent refers to the Reasons for the decision under appeal.

In point 6 of the Reasons, the opposition division first explained that the objection of lack of sufficient disclosure presupposed that there were serious doubts substantiated by verifiable facts. To establish insufficiency, the burden of proof was upon the opponent to establish on the balance of probabilities that a skilled reader of the patent, using their common general knowledge, would be unable to carry out the invention.

Regarding the first point of the appellant, the opposition division further set out that the patent in suit disclosed that the crystallinity of the outer region could be increased by subjecting it to heat (see page 8, line 27), which may be a temperature above (see

page 8, line 29) or below its melting temperature (see page 8, line 29). The skilled person could therefore select the melting temperature as a starting point for determining the duration of the heat application for achieving a specific increase of the crystallinity, for example, 2% or 5% (see paragraph [0074]). Determining the duration of the heat application was then a matter of routine experimentation. The opponent had not demonstrated that a skilled person was unable to determine such a duration.

Moreover, regarding the temperature and duration required for the heating, the respondent referred to paragraphs [0066], [0073] and [0102] of the patent. In its view, guidance regarding the cooling process was given in paragraph [0103].

Regarding the second point raised by the appellant, according to the opposition division, the claims neither required a specific crystallinity at a specific depth, nor did they specifically rely on FTIR for measuring the crystallinity. Whether the crystallinity could be measured by FTIR for a depth of several millimetres (see Figure 4 of the patent) was therefore immaterial for the sufficiency of disclosure of the invention defined by claim 1 of the main request. Moreover, the skilled person could use other methods for measuring crystallinity if FTIR proved to be unsuitable for the desired depth. Such methods were also described in document D14. The skilled person further understood the expression "*across the thickness of a sample*" in paragraph [0010] of the patent in the sense that a cross-section of the sample was to be obtained prior to the FTIR measurement, for example, by first cutting the pipe and then measuring on the ring-shaped cross-sectional surface of the cut pipe.

(f) Admittance of the objections under Articles 52(1) and 56 EPC raised for the first time in the statement of grounds of appeal

(i) Appellant

For the first time in the statement of grounds of appeal, the appellant submitted that the subject-matter of claims 1 and 9 were obvious to the skilled person in view of a combination of document D1 with any of document D11, the prior art indicated in paragraph [0004] of the patent specification and document D15.

Document D11 and explanations relating to it had been submitted by the opponent by letter of 20 May 2016. According to the appellant, document D11 had been filed in reaction to the filing of amended claims according to a new main request by the patent proprietor. From previous submissions, it was further clear that only inventive step in view of document D1 as the closest prior art was under discussion, such that its submissions by letter of 20 May 2016 clearly referred to an inventive-step objection based on a combination of documents D1 and D11.

The appellant further takes the view that the patent specification, in paragraph [0004], described that reinforcing materials having PEEK as a polymer were known in the art. According to the appellant, submissions regarding paragraph [0004] of the patent had already been presented in the notice of opposition, page 1, last paragraph to page 2, first paragraph and in the opponent's letter of 21 October 2015, page 6, sixth paragraph.

In the statement of grounds of appeal, the appellant further raised an inventive-step objection based on a combination of documents D1 and D15. The appellant explained that when preparing the statement of grounds of appeal, it tried to determine what the remarks in paragraph [0004] of the patent referred to and that the appellant could thus determine the state of the art, which was mentioned in paragraph [0002] of the patent, namely document WO 2006/059220 (document D15), which represented additional, highly relevant prior art. The presentation of document D15 was in reaction to the patent proprietor's submission during the oral proceedings before the opposition division that paragraph [0004] of the opposed patent did not disclose a PEEK pipe in combination with a PEEK outer reinforcement means (see point 8.6 of the minutes of the oral proceedings). Moreover, in the appellant's view, this was not a new factual presentation because, in paragraph [0004], the patent proprietor acknowledged that this was state of the art and this document was further cited in paragraph [0002] of the patent. The patent proprietor should therefore be sufficiently familiar with document D15.

In the oral proceedings before the board, the appellant set out that all arguments relating to these three inventive-step objections had been presented with the statement of grounds of appeal and, in accordance with Article 12(4) RPBA 2007, must therefore be taken into account in the appeal proceedings. These objections could not come as a surprise to the respondent since they had been presented with the statement of grounds of appeal.

Moreover, according to the appellant, it was generally not necessary to discuss every point in detail in the first-instance proceedings since that was what appeal proceedings were for. It was also the appellant's right to present new arguments in the appeal proceedings.

Having been asked, the respondent did not contest the board's view that the inventive-step objections raised against the dependent claims in point 6 of the statement of grounds of appeal are based on the objections against the independent claims, such that there are no independent inventive-step objections against the dependent claims of the main request.

(ii) Respondent

The respondent requests that the inventive-step objections based on the combination of document D1 with any of document D11, the prior art indicated in paragraph [0004] of the patent specification and document D15, all raised for the first time with the statement of grounds of appeal, not be admitted into the appeal proceedings.

While, in general, objections previously raised in first-instance proceedings may be further developed in the appeal proceedings, this does not apply to the inventive-step objections raised by the appellant in the statement of grounds of appeal as these were new objections based on new facts.

(g) Appellant's objection under Rule 106 EPC

After the board declared, during the oral proceedings, its conclusion that the appellant's objections of lack of inventive step against claims 1 and 9 of the main

request based on a combination of document D1 with document D11, paragraph [0004] of the patent in suit or document D15 were not admitted into the proceedings, the appellant raised an objection under Rule 106 EPC (see point IV. above). It took the view that not admitting these objections constituted an undue restriction of the appellant's right to be heard in the appeal proceedings. In support of this view, it argued that document D11 and paragraph [0004] of the patent had been discussed in the first-instance proceedings in the context of inventive step, with document D11 having been submitted by letter dated 20 May 2016 in which the content of D11 was discussed on page 2 and paragraph [0004] of the patent having been mentioned at the top of page 2 of the notice of opposition, in the letter dated 21 October 2015 on page 6 and in the oral proceedings before the opposition division.

The appellant did not dispute that it had been heard on the question of the admittance of its inventive-step objections, that it had been able to present its arguments in this regard without restrictions and that its right to a fair hearing in relation to the question of admittance of its inventive-step objections had not, therefore, been restricted or disregarded. Instead, its objection was directed at the board's discretionary decision not to admit into the proceedings the inventive-step objections submitted with the statement of grounds of appeal (see above). In its opinion, as the appellant, it should be given the opportunity to file new arguments and to further develop the arguments regarding inventive step presented in the first-instance proceedings. Since the inventive-step objections raised by the appellant with the statement of grounds of appeal had not been admitted into the

appeal proceedings, the appellant's right to be heard was violated.

Reasons for the Decision

1. Main request: Objection under Rule 80 EPC

As correctly pointed out by the opposition division (see point 2.3 of the Reasons), the "invention" mentioned in Article 100(b) EPC is to be understood as the invention as defined in the claims. A ground for opposition raised under Article 100(b) EPC can therefore, in some cases, be overcome by an appropriate claim amendment.

In the current case, the insertion of feature (iii) in claim 1 of the main request limits the claimed subject-matter regarding how the crystallinity increase (already cited in claim 1 as granted) is to be caused, thus narrowing the definition of the invention. This amendment is therefore a serious attempt to overcome the ground for opposition under Article 100(b) EPC given that the previous broad definition of the invention in claim 1 as granted was not disclosed in the patent in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

The opponent (now appellant) had raised a similar objection in point 3 of the notice of opposition arguing that the skilled person would not have known how to increase the crystallinity in the outer region. It appears that, in view of the above additional claim limitation, the skilled person is no longer confronted with the more general problem of how to increase the crystallinity but is given additional restrictions and

guidance, thus the number of parameters that need to be set to achieve the result has been limited (see also the discussion regarding Article 83 EPC below).

The amendments to claim 1 of the main request therefore comply with the provision of Rule 80 EPC.

2. Main request: Objections under Article 84 EPC

2.1 *"outer region"*

The board observes that, in the order of decision G 3/14 (OJ EPO 2015, A102), the Enlarged Board of Appeal states:

"In considering whether, for the purposes of Article 101(3) EPC, a patent as amended meets the requirements of the EPC, the claims of the patent may be examined for compliance with the requirements of Article 84 EPC only when, and then only to the extent that the amendment introduces non-compliance with Article 84 EPC."

In the case at issue, in contrast to the feature under dispute (*"... wherein the first polymeric material has a crystallinity of less than 25% in an outer region of the pipe P1 ..."*) in claim 1 of the main request, claim 1 as granted comprises the following feature:

"... a pipe P1 having an outer region comprising a crystalline or crystallisable polymeric material having a crystallinity of less than 25%".

Hence, also in claim 1 as granted, an outer region of the pipe was defined with specific properties, namely as comprising a crystalline or crystallisable polymeric

material having a crystallinity of less than 25%. Moreover, also in the cited feature of granted claim 1, the extension (for example, depth) of the outer region is not quantified. In this regard, claim 1 as granted and claim 1 of the main request do not differ.

Therefore, in view of the order of decision G 3/14, claim 1 of the main request is not to be examined for compliance with the requirements of Article 84 EPC in view of a potential lack of clarity regarding the lack of definition of the extension (or depth) of the "outer region".

The same applies to the corresponding wording included in claim 9 of the main request.

2.2 *"at some stage"*

The board shares the respondent's view that the term "at some stage" is broad but not ambiguous. In claim 1, the second polymeric material of the reinforcing means can be in a melted state immediately upon contact with pipe P1 or at some point in time after contact. While this claim feature therefore covers different embodiments pertaining to different possibilities of carrying out the claimed method, this finding does not give rise to a lack of clarity.

2.3 *"subjecting the outer region of pipe P1 to heat"*

According to the appellant, the feature of *"subjecting the outer region of pipe P1 to heat"* of claim 1 of the main request gave rise to a lack of clarity since it was not clear to what degree the outer region had to be heated.

However, claim 1 more specifically defines that the outer region of pipe P1 is to be subjected to heat "*so the first polymeric material of the outer region re-crystallises*". Hence, according to the claim, the outer region is to be heated (at least) until the first polymeric material of the outer region re-crystallises.

2.4 Summary on the objections under Article 84 EPC

Consequently, the objections raised by the appellant under Article 84 EPC do not prejudice the maintenance of the patent as amended according to the respondent's main request.

3. Main request: Objections under Article 123(2) EPC

The appellant takes the view that independent claims 1 and 9 as well as dependent claims 4, 5 and 8 of the main request had been amended in such a way that their subject-matter extended beyond the content of the application as filed, thus contravening Article 123(2) EPC.

3.1 *Claim 1*

In the following, the feature identification of the opposition division is adopted (see features A, B and C identified above).

Regarding feature A, claim 1 of the application as originally filed already includes the feature of the reinforcing means (see page 33, lines 12 and 13 of the claims of the application as filed) while, however, not specifying its composition. Yet, the skilled person is directly and unambiguously presented with details regarding the reinforcing means when reading the

passages of the general part of the description dealing with the reinforcing means on pages 19 and 20, which were also identified by the opposition division. The appellant's view that on page 19, last paragraph the polymer of the general formula (XX) was listed as only one item out of a list of (equally preferred) choices for the first material is not persuasive. Quite the contrary, according to page 19, lines 29 to 31, "*[m]ore preferably, said first material is of general formula (XX) as described above*". In contrast, none of the (very few) other options listed in this paragraph are described as more preferred than that of the first material being of general formula (XX), such that it can be concluded that this was the most preferred choice.

Similarly, the second paragraph on page 20, including lines 6 and 7, also cited by the opposition division, does not state that a fibrous material could also be used in the reinforcing means. Instead, the first sentence of this paragraph reads: "*Said second material of said reinforcing means preferably comprises a fibrous material.*" Again, no other material for the second material (as defined on page 19, lines 17 to 19) is described as more preferred, thus rendering a fibrous material as the most preferred option.

Hence, from the entire passage from page 19, line 17 to page 20, line 12 of the general part of the description, the skilled person would have concluded that a particularly preferred choice for the reinforcing means cited in claim 1 of the application as originally filed was the one defined in feature A, namely the reinforcing means comprising a second polymeric material of formula (XX) and a fibrous material.

With reference to feature B, the passage on page 22, lines 18 to 22 of the description as filed reads:

"In step (ii) of the method, crystallinity of the outer region of pipe P1 is caused to increase by subjecting the outer region of pipe P1 to heat, suitably so the outer region can re-crystallise, thereby to increase its crystallinity."

This passage thus describes that subjecting the outer region of pipe P1 to heat in step (ii) has the effect of causing the crystallinity of the outer region of pipe P1 to increase. Since no other heating step was indicated in this context in the application as filed, the skilled person directly understood that the heating of the reinforcing means, as described in more detail on page 20, line 26 to page 21, line 2, referred to the heating of the outer region of the pipe P1 described on page 22, lines 18 to 22.

The appellant further holds that the passage on page 20, line 34 to page 21, line 2 did not disclose a link between the heating of the reinforcing means being prior to, during and/or after it has been contacted with pipe P1 and the second polymeric material of the reinforcing means therefore being in a melted state, as required by feature B.

This is not persuasive as the feature objected to is directly and unambiguously derivable from the cited paragraph bridging pages 20 and 21, taking into account the nomenclature of claim 1 in which the "second polymeric material" corresponds to the "first material" cited in this text passage of the description as filed

(see the last two paragraphs on page 19 for the definition of the "first material").

Also, the appellant's objection relating to the part of feature B of claim 1 according to which the pipe P1 was heated by contact with the reinforcing means or by a heating means used to heat the reinforcing means during or after overlaying the pipe P1 with the reinforcing means, thus causing the reinforcing means to bond to pipe P1, is not persuasive. In contrast, from the paragraph bridging pages 20 and 21 of the application as filed, it can be derived that the reinforcing means may be heated prior to, during and/or after it has been contacted with the pipe, and that, preferably, the first material is in a melted state at some stage after contact with pipe P1, suitably so the reinforcing means can bond to pipe P1. The skilled person would have understood these two aspects in the context in which they were presented in this paragraph. The paragraph bridging pages 22 and 23 further specifies how the pipe is heated, namely (see page 23, lines 1 to 5):

"Preferably, pipe P1 is not heated by a heating means other than by contact with said reinforcing means or by a heating means used to heat the reinforcing means during or after application of the reinforcing means to the pipe P1."

Hence, the cited portion of feature B is unambiguously and directly derivable in view of these two paragraphs.

Moreover, feature C was further unambiguously and directly derivable from the text passages on page 16, lines 7 to 14, also cited by the opposition division. This passage refers to this feature as a "preferable" definition for the polymeric material. Claim 12 of the

application as originally filed provides a further basis for this feature.

On a more general level, in its submissions, the appellant appears to reflect the critical stance developed by some boards in view of a selection from two lists (see Case Law of the Boards of Appeal, 9th edition 2019, "Case Law", II.E.1.6.2). However, this case law does not apply to the amendments to the claims of the main request at issue. The definition of the polymeric material in claim 1 of the main request is not the result of an arbitrary selection of materials from two or more (lengthy) lists of (equally preferred or ranked) items. The invention as defined in claim 1 of the main request is instead the result of concretising claim 1 as filed by including additional features originally described as either more preferable than other implementations mentioned or which have been described as preferred options together with a very limited number of other options.

Therefore, the amendments included in claim 1 of the main request comply with the provision of Article 123(2) EPC.

3.2 *Claim 9*

The appellant is of the opinion that claim 9 of the main request had been amended in an unallowable manner regarding features A, B' and C. However, feature B' is unambiguously and directly derivable from page 21, lines 1 and 2 and page 25, lines 1 to 3, as also pointed out by the appellant. The appellant's objection is based on the observation that these passages do not indicate that the first polymeric material has a

crystallinity of greater than 25% in an outer region of the pipe as defined in claim 9.

However, the latter feature was already present in claim 21 as filed on which claim 9 of the main request is based (see the analysis by the opposition division in the decision under appeal summarised above in point IX.).

Therefore, and for the reasons regarding features A and C set out above, the amendments included in claim 9 of the main request do not contravene Article 123(2) EPC.

3.3 *Claims 4, 5 and 8*

The appellant raises further objections under Article 123(2) EPC against dependent claims 4, 5 and 8 of the main request. In its view, even if, for example, claim 4 were considered to be a combination of claims 4, 5, 6 and 20 of the claims as filed, these claims contained a reference "to any preceding claim". The specific combination of the features of original claims 4, 5, 6 and 20, however, could not be derived from the original claims.

This view is not persuasive. Instead, in accordance with Rule 43(4) EPC, a dependent claim contains all the features of a claim on which it depends. Therefore, the additional features as combined in claims 4, 5 and 8 of the main request are unambiguously and directly derivable from the respective dependent claims of the application as originally filed considering their reference to each other. In contrast, the appellant has not convincingly demonstrated that the mere presence of references to further claims in claims 4, 5, 6 and 20 as filed obscured the disclosed subject-matter to such

a degree that the subject-matter of claims 4, 5 and 8 of the main request was not unambiguously and directly derivable for the skilled person.

3.4 *Summary on the objections under Article 123(2) EPC*

The appellant's objections under Article 123(2) EPC do not therefore prejudice the maintenance of the patent as amended according to the main request.

4. Main request: Objection under Article 123(3) EPC

The appellant's interpretation of claim 1 as granted differs from that of the opposition division (also adopted by the respondent) in that the opposition division found that the feature "*comprising a crystalline or crystallisable polymeric material having a crystallinity of less than 25%*" of claim 1 as granted only applied to the outer region of the pipe.

However, the opposition division's interpretation of the cited feature of granted claim 1 is convincing. The skilled person would have understood the wording "*comprising ... a polymeric material*" as referring to the outer region (of the pipe P1). Hence, the above feature of claim 1 as granted only requires the presence of a crystalline or crystallisable polymeric material having a crystallinity of less than 25% in the outer region of the pipe P1. Conversely, this feature does not define the presence of the same polymeric material, let alone of the same polymeric material having the same crystallinity, in other portions of the pipe P1, such as an inner region of the pipe P1.

The passage on page 7, lines 1 and 2 of the application as filed, cited by the appellant, relates to additional

features of a preferred construction. These features, however, have not been included in claim 1 as granted. These features should therefore not be "read into" the claim as granted as additional mandatory features. Moreover, the appellant's view that the composition of all portions of the pipe needed to be defined in the claim and that it made little sense to only define the outer region of the pipe and to leave open the inner region is not persuasive. Claim 1 as granted defines the matter for which protection is sought in terms of the technical features of the invention (see also Rule 43(1) EPC) while leaving open other aspects of the method which are not essential for the definition of the invention and which may relate, for example, to preferred embodiments.

Consequently, feature (i) of claim 1 as granted does not imply any restrictions not also implied by the corresponding feature of claim 1 of the main request, namely:

"wherein the first polymeric material has a crystallinity of less than 25% in an outer region of the pipe P1"

The appellant's observations, therefore, do not allow concluding that claim 1 of the main request has been amended in violation of Article 123(3) EPC. The same applies, *mutatis mutandis*, to claim 9 of the main request.

5. Main request: Objection under Article 83 EPC

In accordance with the case law of the boards (see Case Law, II.C.9) and as also pointed out by the opposition division, a successful objection of lack of sufficiency

of disclosure presupposes that there are serious doubts substantiated by verifiable facts. To establish insufficiency of disclosure in *inter partes* proceedings, the burden of proof is upon an opponent to establish, on the balance of probabilities, that a skilled person reading the patent, using their common general knowledge, would be unable to carry out the invention.

The appellant's first objection under Article 83 EPC is based on the finding that claim 1 of the main request does not specify the process parameters of temperature, the duration of the heating, and the cool-down rate that would need to be controlled to achieve the desired result of an increase of crystallinity of the outer region and of bonding the reinforcing means to the pipe, as defined in the last feature of claim 1 of the main request.

Indeed, the claim is silent regarding the precise choice of these three parameters for the heating step. However, the skilled person would be able to find, without undue efforts, parameter values that would yield the desired result. The cited claim feature generally refers to an increase of crystallinity without quantifying this increase, such that the intended result is defined rather broadly. Moreover, the patent specification, in paragraph [0073], suggests that the melting temperature of the polymeric material plays a role in the heating step. In addition, the passages in paragraphs [0066], [0102] and [0103] of the patent cited by the respondent are of relevance as they give the skilled person further guidance on how the desired result can be achieved.

Most importantly, according to paragraph [0103] on page 10, lines 48 to 50:

"... During the process of welding the tape to the pipe 2, the surface of pipe 2 will melt in a zone defined as the melt zone in figure 4. It will subsequently slowly re-crystallise as it solidifies since it is cooled relatively slowly due to it being subjected to ambient conditions and being insulated by the tape. ..."

In this passage, the patent includes comprehensive guidance for the skilled person on how the heating and cooling should be performed. The skilled person is informed that subjecting the pipe to ambient temperature conditions allows a sufficiently slow cooling as the tape (i.e. the reinforcing means) provides insulation.

The appellant, in contrast, has not convincingly shown that the skilled person would not have been able to find suitable settings for the three parameters it identified (temperature, heating duration and cooling) without an undue burden.

Regarding the second point raised by the appellant, the claims are not restricted to a particular method of measuring the crystallinity. Even in the description, FTIR is mentioned as only one example of a means to measure the crystallinity of the outer region (see paragraph [0011], last sentence). Therefore, even if one method for measuring crystallinity, such as FTIR, was found to be unsuitable for measuring the crystallinity of the outer region within some thickness ranges, this finding would not allow the conclusion that no other measuring method would be suitable for

such a measurement, as also concluded by the opposition division. Consequently, even if it were assumed that the appellant's assumption that the FTIR method mentioned in the patent and explained in document D14 was unsuitable where the thickness of the outer region was above 1 or 2 μm , this would not imply that no other measuring methods existed for such cases.

In any case, the appellant's submissions regarding the limitations of the FTIR method for measuring the crystallinity in the outer region are also not found convincing for the following reasons.

Even if the FTIR method were limited to a range of 1 or 2 μm from the surface, this does not imply that this method could not be used for assessing the crystallinity where the outer region was thicker. More specifically, according to the patent, "*FTIR may be used to assess crystallinity and this may be used to assess the level of crystallinity at a surface and/or across the thickness or surface of a sample*" (see paragraph [0099] of the patent). The skilled person would have understood from this passage, as also concluded by the opposition division, that the crystallinity across the thickness of a sample may be assessed using FTIR by cutting the sample to obtain a cut surface and measuring the crystallinity across that cut surface. The limitations regarding the depth of FTIR measurements therefore do not restrict the depth of the outer region that can be assessed with that method.

Hence, the appellant's arguments regarding the limitations of the FTIR method do not give rise to serious doubts regarding the skilled person's ability to carry out the claimed invention.

The invention according to the main request is thus sufficiently disclosed (Article 83 EPC).

6. Admittance of the objections under Articles 52(1) and 56 EPC raised in the statement of grounds of appeal

In the case at issue, the statement of grounds of appeal was filed before 1 January 2020, i.e. before the revised version of the Rules of Procedure of the Boards of Appeal (Article 24(1) RPBA 2020) came into force. Therefore, in accordance with Article 25(2) RPBA 2020, Article 12(4) to (6) RPBA 2020 does not apply. Instead, Article 12(4) RPBA in the version of 2007 (RPBA 2007, OJ EPO 2007, 536) continues to apply.

Article 12(4) RPBA 2007 reads as follows:

"Without prejudice to the power of the Board to hold inadmissible facts, evidence or requests which could have been presented or were not admitted in the first instance proceedings, everything presented by the parties under (1) shall be taken into account by the Board if and to the extent it relates to the case under appeal and meets the requirements in (2)."

The appellant's inventive-step objections based on the combination of document D1 as the closest prior art with document D11, paragraph [0004] of the patent in suit or document D15 were raised in the statement of grounds of appeal and are therefore, as a rule, part of the appeal proceedings (Article 12(2) and (4) RPBA 2007). However, in accordance with Article 12(4) RPBA 2007, the board has the discretionary power to hold

inadmissible facts, evidence and requests which could have been presented in the first-instance proceedings.

In this regard, the following observations are made.

6.1 *Inventive-step objection based on a combination of documents D1 and D11*

Document D11 was filed with the opponent's letter of 20 May 2016. In this letter, the opponent takes the view (see page 2, second paragraph) that the patent proprietor had restricted the main request in the opposition proceedings to the effect that a pipe was now claimed in which both the first and the second polymeric material were a polymer of the general formula (XX). It could therefore also be the same polymeric material. However, according to the cited passage of the opponent's letter, such embodiments were already described in the talk to which document D11 refers.

However, in the letter of 20 May 2016, the opponent did not expressly raise any specific, substantiated objection based on document D11. It is, for example, not evident from this letter whether the opponent considered document D11 to take away the novelty of the subject-matter of the independent claims of the patent proprietor's main request, or whether it considered document D11 to be relevant in the context of inventive step.

The appellant's view that it was clear from previous submissions filed before this letter that only inventive step based on document D1 was discussed is not persuasive. Firstly, even if this were the case, this would not exclude the possibility that a new

novelty objection based on newly filed document D11 was raised in that letter. Secondly, it is apparent, for example from point 8.1 of the minutes of the oral proceedings before the opposition division, that the opponent itself considered document D5 to represent the closest prior art for the claimed subject-matter. Thirdly, it is not the obligation of the patent proprietor, the opposition division or the board to gather points mentioned in different submissions of the opponent to generate, on their own, possible objections. Instead, it was the opponent's task to clearly and concisely state its objections against the pending claims, thus specifying all the facts, objections, arguments and evidence relied on.

Consequently, it cannot be concluded that the opponent, in its letter of 20 May 2016, raised an inventive-step objection based on a combination of documents D1 and D11.

Moreover, from the minutes of the oral proceedings before the opposition division, it is not apparent that the opponent substantiated any objection based on document D11 in the oral proceedings, let alone an inventive-step objection based on the combination of documents D1 and D11.

The inventive-step objection based on a combination of documents D1 and D11 was thus presented for the first time with the statement of grounds of appeal.

In contrast to the opinion of the appellant, the arguments regarding this objection submitted with the statement of grounds of appeal do not further develop a line of argument previously presented in the first-instance proceedings. These submissions relate, in

contrast, to a new objection raised for the first time with the statement of grounds of appeal.

In view of Article 12(4) RPBA 2007, the question therefore arises whether this objection could have been presented in the first-instance proceedings.

In accordance with the case law of the boards (see Case Law, IV.C.4.3), opponents are required to submit all their objections during the opposition period, setting each out in full. However, not only are facts and evidence submitted by the opponent within the nine-month period for filing an opposition "filed in due time". The subsequent filing of facts and evidence may also be in "due time" when in accordance with the principle of procedural economy and, therefore, when the filing party has observed a fair degree of procedural vigilance.

In the letter of 20 May 2016, the opponent explains that the submission of document D11 was occasioned by an amended main request filed by the patent proprietor. This amended main request was filed by letter of 17 August 2015. However, in its letter of 20 May 2016, the opponent did not substantiate any objection based on document D11 (see above). However, the appellant has not explained why it waited until the appeal proceedings to raise a substantiated objection based on a combination of document D1 and document D11. The opponent could have (and, in fact, should have) done so in the opposition proceedings, i.e. in direct response to the filing of the amended claims according to the patent proprietor's main request by letter of 17 August 2015.

Moreover, the appellant's argument submitted during the oral proceedings before the board that the respondent could not be surprised by the inventive-step objections since these had been raised in the statement of grounds is also not convincing. Whether the appellant considers that the respondent may or may not be surprised by its objections is not a decisive criterion in the application of Article 12(4) RPBA 2007. The issue instead hinges on whether these objections could and should have been presented in the first-instance proceedings. This was indeed the case as explained above.

Yet, conversely, the fact that the opponent cited document D11 shows that the opponent (now appellant) was aware in the first-instance proceedings of this document and further considered it to be of some relevance for the amended claims of the main request filed by the patent proprietor on 17 August 2015. The opponent could therefore have been reasonably expected to, if it considered the subject-matter claimed in the main request not to be based on an inventive step in view of a combination of documents D1 and D11, raise this objection in direct reaction to the filing of the amended claims according to the patent proprietor's main request in good time before the first-instance oral proceedings held on 4 July 2016 so that the opposition division could have considered it for its decision. No justification for filing this objection as late as with the statement of grounds of appeal is apparent or has been brought forward by the appellant.

In exercising its discretion under Article 12(4) RPBA 2007, the board thus decided not to admit the appellant's objection of lack of inventive step against claims 1 and 9 of the main request based on a

combination of documents D1 and D11 into the appeal proceedings.

6.2 *Inventive-step objection based on a combination of document D1 and the content of paragraph [0004] of the patent in suit*

According to the appellant, paragraph [0004] of the patent was mentioned at the top of page 2 of the notice of opposition, in the letter dated 21 October 2015 on page 6 and in the oral proceedings before the opposition division.

However, paragraph [0004] of the patent is not expressly mentioned on page 2 of the notice of opposition. Moreover, while portions of the paragraph bridging pages 1 and 2 of the notice of opposition relate to aspects also discussed in paragraph [0004] of the patent, the paragraph bridging pages 1 and 2 of the notice of opposition describes alleged prior art and does not refer to any objection. No inventive-step objection based on the combination of documents D1 and this paragraph of the patent was raised in the notice of opposition. On the contrary, in point 9 of the notice of opposition, the opponent apparently considered document D5 to be the closest prior art.

Moreover, in the penultimate paragraph on page 6 of the opponent's letter of 21 October 2015, paragraph [0004] of the patent is cited in the context of the discussion of the technical problem solved by the invention. However, this letter does not include an inventive-step objection based on the combination of document D1 and the content of paragraph [0004] of the patent, either.

Lastly, in the oral proceedings before the opposition division, the opponent apparently raised an inventive-step objection based on paragraph [0004] of the patent as the closest prior art, see the last paragraph on page 7 of the minutes:

"Still in another line of argumentation, the opponent defended that the opposed patent discloses the state of the art in its paragraph [0004], wherein both the inner pipe (line 18) and the reinforcing means (line 20) can comprise PEEK. Starting from this disclosure as closest prior art, the intended increase of crystallinity would be achieved by combining it either with D4 or D5."

Incidentally, the opposition division did not admit this objection into the opposition proceedings (see point 9.4 of the Reasons).

While the opponent thus raised an objection based on the combination of the content of paragraph [0004] of the patent with document D4 or D5, the inventive-step objection based on a combination of document D1 as the closest prior art with the content of paragraph [0004] of the patent was apparently not raised or discussed during the oral proceedings before the opposition division.

Instead, this objection was submitted for the first time with the statement of grounds of appeal. Therefore, the question arises whether this objection could have been presented in the first-instance proceedings (Article 12(4) RPBA 2007).

Similar considerations to those on the inventive-step objection based on a combination of documents D1 and

D11 apply (see point 6.1 above). As explained above, it was the opponent's obligation to put forward any objections against the amended claims of the main request filed by the patent proprietor on 17 August 2015 as a timely reaction to the presentation of these amended claims.

Moreover, since the opponent cited paragraph [0004] of the patent, for example, in the penultimate paragraph on page 6 of its letter of 21 October 2015, it can be assumed that it was aware of the content of this paragraph and further considered it to be of relevance for the amended claims of the main request. The appellant has also not given any reason why the inventive-step objection based on a combination of document D1 and the content of paragraph [0004] of the patent was not filed during the first-instance proceedings in reaction to the submission of the amended claims but instead as late as with the statement of grounds of appeal.

In view of the above, in exercising its discretion under Article 12(4) RPBA 2007, the board did not admit the appellant's inventive-step objection based on a combination of document D1 and paragraph [0004] of the patent.

6.3 *Inventive-step objection based on a combination of documents D1 and D15*

In its submission regarding document D15, the appellant refers to paragraph [0002] of the patent. Paragraph [0002] reads:

"Composite umbilicals and other composite pipes for use in the recovery of hydrocarbons from oil or gas

wells or for use in performing downhole operations are well-known, for example from US2002/0007970, US6761574, WO2006/071362, US6538198, WO99/67561 and WO2006/059220."

The last citation mentioned in this paragraph corresponds to document D15. It is not under dispute by the parties that this document was not cited or referred to during the first-instance proceedings.

The appellant's view that document D15 was not to be considered a new fact (or evidence) because this document was cited in the patent specification is not persuasive. In paragraph [0002] of the patent cited above, document D15 is mentioned as merely one out of six documents supposedly showing composite umbilicals and other composite pipes for use in the recovery of hydrocarbons from oil or gas wells or for use in performing downhole operations. However, the six documents cited in paragraph [0002] of the patent specification are not automatically considered to have been presented as evidence in the opposition proceedings. Moreover, even if the respondent had been familiar with the content of document D15, as also argued by the appellant, this finding did not imply that this document must be considered as having been presented in the opposition proceedings.

Even more importantly, in the first-instance proceedings, the opponent did not raise an inventive-step objection based on the combination of documents D1 and D15. This has also not been disputed by the appellant. This objection was instead raised, for the first time, in the statement of the grounds of appeal.

The appellant has further not convincingly explained why the inventive-step objection based on a combination of documents D1 and D15 was submitted as late as in the appeal proceedings. Since document D15 was cited in the patent specification, it could have been assumed that the opponent was aware of this document and was further in a position to assess its relevance. Consequently, it could (and should) have filed document D15 and a corresponding inventive-step objection in reaction to the amended claims of the main request submitted by the patent proprietor on 17 August 2015 in good time before the first-instance oral proceedings held on 4 July 2016 so that the opposition division could have considered this objection for its decision. Moreover, the appellant's argument that it only came across document D15 cited in paragraph [0002] of the patent when trying to understand paragraph [0004] of the patent does not explain why this document and the corresponding objection were only presented in the appeal proceedings.

This finding is not altered in view of the appellant's reference to point 8.6 of the minutes of the oral proceedings before the opposition division. According to this part of the minutes, the patent proprietor stated during the oral proceedings that paragraph [0004] of the patent did not disclose a PEEK pipe in combination with a PEEK outer reinforcement means, thus apparently contesting the opponent's view that the contents of paragraph [0004] of the patent could be considered the closest prior art (see point 8.1, last paragraph on page 7 of the minutes). However, filing a completely new inventive-step attack based on the combination of documents D1 and D15 is not an appropriate reaction to the patent proprietor's view that the contents of paragraph [0004] of the patent did

not represent the closest prior art. Therefore, raising this inventive-step objection in the statement of grounds of appeal cannot be considered to be occasioned by the turn of events in the oral proceedings to which the appellant refers.

In view of the above, the board exercised its discretion under Article 12(4) RPBA 2007 by not admitting the inventive-step objection based on the combination of documents D1 and D15 into the appeal proceedings.

6.4 *Summary on admittance of inventive-step objections raised for the first time in the statement of grounds of appeal*

In application of Article 12(4) RPBA 2007, the appellant's objections of lack of inventive step against claims 1 and 9 of the main request based on a combination of document D1 with document D11, paragraph [0004] of the patent in suit or document D15 were not admitted into the proceedings.

Since the inventive-step objections raised by the appellant against the dependent claims of the main request are dependent on the objections against independent claims 1 and 9 set out above, the inventive-step objections against the dependent claims also do not prejudice the maintenance of the patent as amended according to the main request.

7. Appellant's objection under Rule 106 EPC

After the board had declared during the oral proceedings its conclusion that the appellant's objections of lack of inventive step against claims 1

and 9 of the main request based on a combination of document D1 with document D11, paragraph [0004] of the patent in suit or document D15 were not admitted into the proceedings, the appellant raised an objection under Rule 106 EPC. It took the view that not admitting these objections into the appeal proceedings constituted an undue restriction of the appellant's right to be heard in the appeal proceedings.

The appellant had been heard on the question of the admittance of its inventive-step objections and was able to present its case in this regard without restrictions. The appellant's right to a fair hearing on the question of admittance of its inventive-step objections was therefore not restricted or disregarded. This was also not disputed by the appellant. Instead, its objection under Rule 106 EPC is directed at the board's discretionary decision not to admit into the proceedings the inventive-step objections submitted, for the first time, with the statement of grounds of appeal. In its opinion, as the appellant, it should be given the opportunity to further develop the arguments regarding inventive step presented in the first-instance proceedings. Since the inventive-step objections submitted with the statement of grounds of appeal had not been admitted, in its view, the appellant's right to be heard was violated.

The board, in contrast, is of the opinion that the inventive-step objections put forward in the statement of grounds of appeal do not constitute a further development of objections raised during the first-instance proceedings but are fresh objections under Article 56 EPC, as set out above. Moreover, the appellant cannot derive from its right to be heard under Article 113(1) EPC any right to file objections

at any point in the proceedings. The parties are not completely free in their conduct in the proceedings but are subject to certain limits which result, in *inter partes* proceedings, from the principle of fairness towards the other parties recognised in the case law and generally from the requirements of due process (see also T 1685/07, point 6.1 of the Reasons and T 1786/16, point 4.3 of the Reasons). Parties involved in a procedure also have a duty that the procedure is conducted carefully and efficiently. This includes presenting all relevant facts, evidence, arguments and requests as early and as completely as possible (see T 1685/07, points 6.1 and 6.2 of the Reasons; and T 2102/08, point 4.3.1 of the Reasons). Article 12(4) RPBA 2007 sanctions a breach of this obligation. The aim is to concentrate the parties' submissions at an early stage in the proceedings. As a result, the procedure should be predictable and lead to an appropriate decision within a reasonable period of time (T 1786/16, point 4.3 of the Reasons).

If, in the case at hand, the opponent (now appellant), in view of the main request filed by the patent proprietor on 17 August 2015, considered it appropriate to raise additional objections against the claims of this main request to defend its legal position, as explained above, the opponent (now appellant) would also have had a duty to file these at the earliest possible point in the proceedings, i.e. in response to the submission of the amended claims according to the patent proprietor's main request in good time before the first-instance oral proceedings held on 4 July 2016. It should not have waited until the appeal proceedings to the detriment of the patent proprietor. If it does so anyway, as it did, it runs the risk that its amended submissions will likely not be admitted

into the appeal proceedings. This approach is also reflected in the Rules of Procedure of the Boards of Appeal, such as Article 12(4) RPBA 2007.

Moreover, the appellant's view that it was not necessary to discuss every point in detail in the first-instance proceedings since that was what appeal proceedings were for is a misinterpretation of the function and purpose of appeal proceedings. The primary object of the appeal proceedings is to review the decision under appeal in a judicial manner (see G 9/91, OJ EPO 1993, 408; also reflected in Article 12(2) RPBA 2020). The parties therefore have only limited scope to amend the subject of the dispute in second-instance proceedings. Appeal proceedings are not for bringing an entirely fresh case (see also "Case Law", V.A.4.11.1).

The other arguments put forward by the appellant in its objection under Rule 106 EPC are identical to arguments set out in the discussion on the admittance of the inventive-step objections. They are discussed under point 6. of this decision and therefore do not need to be repeated here.

In view of the above, the objection under Rule 106 EPC raised by the appellant during the oral proceedings must be dismissed.

Order

For these reasons it is decided that:

1. The objection under Rule 106 EPC raised by the appellant is dismissed.
2. The appeal is dismissed.

The Registrar:

The Chairman:



N. Schneider

P. Lanz

Decision electronically authenticated