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**Datasheet for the decision  
of 4 May 2021**

**Case Number:** T 2174/16 - 3.3.10

**Application Number:** 04777834.5

**Publication Number:** 1660606

**IPC:** C09K3/14, C09G1/02, H01L21/321

**Language of the proceedings:** EN

**Title of invention:**  
ABRASIVE PARTICLES FOR CHEMICAL MECHANICAL POLISHING

**Patent Proprietor:**  
W.R. Grace & CO. - CONN.

**Opponent:**  
Nouryon Chemicals International B.V.

**Headword:**  
ABRASIVE PARTICLES FOR POLISHING/ W.R. Grace & CO

**Relevant legal provisions:**  
EPC Art. 123(3), 113(1)  
EPC 1973 Art. 112(1)(a)  
RPBA 2020 Art. 13(2), 25(2), 25(3)  
RPBA Art. 12(2)  
EPC R. 106

**Keyword:**

Amendments - broadening of claim (yes)  
Referral to the Enlarged Board of Appeal - (no)  
Amendment after summons - exceptional circumstances (no)  
Right to be heard - opportunity to comment (yes)  
Objection under Rule 106 EPC (dismissed)

**Decisions cited:**

T 1444/13, T 1702/12

**Catchword:**



**Beschwerdekammern**  
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Case Number: T 2174/16 - 3.3.10

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.10**  
**of 4 May 2021**

**Appellant:** Nouryon Chemicals International B.V.  
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**Representative:** LKGlobal UK Ltd.  
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**Respondent:** W.R. Grace & CO. - CONN.  
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**Representative:** Uexküll & Stolberg  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
20 June 2016 concerning maintenance of the  
European Patent No. 1660606 in amended form.**

**Composition of the Board:**

**Chairman** P. Gryczka  
**Members:** J.-C. Schmid  
T. Bokor

## **Summary of Facts and Submissions**

- I. The Appellant (opponent) lodged an appeal against the interlocutory decision of the Opposition Division which found that the European patent No. 1 660 606 amended according to the then pending first auxiliary request met the requirements of the EPC.

Claim 1 of the patent as granted reads as follows:

"1. An abrasive composition for polishing substrates comprising:

a plurality of colloidal silica abrasive particles comprising a polydisperse particle size distribution with median particle size, by volume, being 20 nanometers to 100 nanometers, a span value, by volume, being greater than or equal to about 20 nanometers, the span value range is measured by subtracting the  $d_{10}$  particle size from the  $d_{90}$  particle size generated using transmission electron micrographs, wherein a fraction of said particles greater than 100 nanometers is less than or equal to 20% by volume of the abrasive particles."

Claim 1 of the first auxiliary request maintained by the Opposition Division reads as follows:

"1. An abrasive composition for polishing substrates comprising:

a plurality of colloidal silica abrasive particles comprising a polydisperse particle size distribution with median particle size, by volume, being 20

nanometers to 100 nanometers, a span value, by volume, being greater than or equal to 15 nanometers, the span value range is measured by subtracting the  $d_{10}$  particle size from the  $d_{90}$  particle size generated using transmission electron micrographs, wherein a fraction of said particles greater than 100 nanometers is less than or equal to 10% by volume of the abrasive particles.”

- II. Notice of opposition had been filed by the Appellant requesting revocation of the patent-in-suit in its entirety for lack of inventive step (Article 100(a) EPC).

The Opposition Division rejected the then pending main request for not complying with Rule 80 EPC and found that the claims of the first auxiliary request met the requirement of patentability of the EPC.

In particular, according to the Opposition Division, although the scope of claim 1 of the first auxiliary request was broader than that of claim 1 of the patent as granted, it corresponded to that of dependent claim 3 of the patent as granted, which was broader than that of independent claim 1 to which it referred back. The Opposition Division concluded therefrom that claim 1 of the first auxiliary request did not extend the protection of the amended patent beyond that conferred by the patent as granted (Article 123(3) EPC).

In the statement setting out the grounds of appeal dated 21 October 2016, the Appellant (opponent) submitted *inter alia* that the patent amended according to the first auxiliary request and as maintained by the Opposition Division extended the protection beyond that conferred by the patent as granted.

- III. With the reply to the Appellant's grounds of appeal dated 10 March 2017, the Respondent filed a main request and a first auxiliary request. The main request corresponds to the first auxiliary request maintained by the Opposition Division. The first auxiliary request corresponds to the second auxiliary request pending before the Opposition Division. The first auxiliary request differs from the main request in that the span value range is measured using transmission electron photomicrographs particle size measurement.
- IV. With a letter dated 26 April 2018, the Appellant submitted again that claim 1 of the main and first auxiliary requests extended the protection conferred by the patent as granted, contrary to the requirements of Article 123(3) EPC.
- V. In the communication of 13 May 2020 pursuant to Article 15(1) RPBA accompanying the summons to oral proceedings to be held on 4 May 2021, the Board shared the Appellant's view that the claim 1 of the main and first auxiliary request, which required a limit for the span value greater than or equal to 15 nanometres, violated Article 123(3) EPC.
- VI. With a letter dated 31 March 2021, the Respondent filed a second and third auxiliary request, wherein the lower limit for the span value was amended to 20 nm and argued that claim 1 of the main and first auxiliary requests fulfilled the requirements of Article 123(3) EPC. Furthermore, in the event that the Board did not follow the principles set out in decision T 1444/13 as regards the issue of Article 123(3) EPC, it was requested that the following question be referred to the Enlarged Board of Appeal:

*"When assessing compliance with Article 123(3) EPC, in case a claim formally drafted as a dependent claims has a scope which is actually broader than the scope of the claim on which it depends, is it to be concluded that the construction of the claim's dependency was wrong, or is the claim formally drafted as dependent claim is 'by law' narrower in scope than the independent claim so that the broader feature is redundant".*

- VII. With a letter dated 23 April 2021, the Appellant requested that the second and third auxiliary requests not be admitted in the proceedings.
- VIII. During the oral proceedings held on 4 May 2021 before the Board, the Respondent submitted the following objection, if the Board would not admit the second and third auxiliary requests in the proceedings: *"In accordance with Rule 106 of the implementing regulations of the EPC we object to the non-admittance of Auxiliary Requests 2 and 3 in these appeal proceedings as a violation of the right to be heard under Article 113 EPC"*. The Respondent made clear that the objection was made in order to reserve its right to file a petition for review under Article 112a EPC.
- IX. According to the Appellant, claim 1 of the main and first auxiliary requests required "a span value, by volume, being greater than or equal to 15 nm". The range from 15nm to 20nm for the span value was not covered by granted claim 1. Dependent claim 3 comprised all the features of independent claim 1 to which it referred. Thus, the composition of dependent claim 3 must fulfil the requirements of both claims 1 and 3. Hence, claim 3 as granted did not cover the span value range of 15 nm to 20 nm. The Respondent's interpretation that dependent claim 3 of the patent as

granted should be construed as an independent claim without any back-reference to claim 1 would contravene the principles of legal certainty. The claims of a patent defined the scope for which protection was sought. The scope of protection must be interpreted on the basis of the generally accepted meaning of the technical features defined in the claim by the person skilled in the art, and not in the light of the possible intention of an applicant when drafting the claim. Hence, the fact that granted claim 3 was dependent on granted claim 1 could not be ignored just because the patent proprietor might have intended to draft claim 3 as an independent claim as asserted by the Respondent. Consequently, claim 1 of the main and auxiliary request 1 contravened Article 123(3) EPC.

Furthermore, there was no inconsistency between the required features in granted claims 1 and 3. According to granted claim 3, the span value must be greater than or equal to 15 nanometres and according to granted claim 1 it must be greater than or equal to about 20 nanometres. The resulting span value which falls under the scope of claim 3 as granted thus must be greater than or equal to about 20 nm, which both covers the requirements of claims 1 and 3 as granted.

Consequently, there was no need for a referral to the Enlarged Board of Appeal according to Article 112 EPC as requested by the Respondent.

Auxiliary requests 2 and 3 were submitted on 31 March 2021, i.e. more than 10 months after the summons to attend oral proceedings dated 13 May 2020 and only about one month prior to the oral proceedings scheduled for 4 May 2021. No arguments were provided why these requests could not have been filed earlier, i.e. at the



opposition stage or at least with Respondent's response to the grounds for appeal. Rather, the Respondent merely speculated that the filing of these requests would be admissible in view of the transitional provisions of Art 25(2) RPBA 2020. However, the transitional provisions of Article 25(2) RPBA 2020 did not apply to submissions filed after the expiry of the due date for filing a response to the statement of grounds of appeal. Rather, the provisions of Article 13 RPBA 2020 concerning amendments to a party's appeal case applied. No justification for the late filing of auxiliary request 2 and 3 had been provided by the Respondent, let alone had the Respondent explained why in the present case any exceptional circumstances as required by Article 13(2) RPBA 2020 should be applicable. An amendment which has just been made in response to a negative preliminary opinion did not constitute an exceptional circumstance, and it could not have been wholly unexpected that the Board would find that the claims maintained during opposition proceedings violated Article 123(3) EPC. The respondent was very well aware of the Article 123(3) EPC objections which had already been raised at the opposition stage and should have considered measures to address these objections at the beginning of the appeal proceedings at the latest. In addition, the amendments made in these requests did not help to overcome the patentability objections and even created further problems under Art 123(2) EPC. Consequently, the second and third auxiliary requests should not be admitted into the proceedings.

- X. According to the Respondent, the claims maintained by the Opposition Division did not extend the scope of protection defined by the claims as granted. The claims must be interpreted by a person skilled in the art in a

way which makes technical sense and which takes into account the whole disclosure of the patent. Claim 1 of the main and first auxiliary requests was based on dependent claim 3 as granted. Claim 3 as granted repeated all features of claim 1 as granted, but defined different ranges with respect to the span value and fraction of particles greater than 100 nm. Accordingly, it was immediately clear to a skilled person that claims 1 and 3 were directed to alternative embodiments of different combinations of span value and fraction of particles greater than 100 nm. Thus, although claim 3 was formally drafted as a dependent claim, its scope differed in that the range of the span value increased from greater than or equal to 20 nm in granted claim 1 to greater than or equal to 15 nm in claim 3, whereas the fraction of particles greater than 100 nm decreased from less than or equal to 20% by volume to less than or equal to 10% by volume in claim 3. The broader range of span value defined in claim 3 of the patent as granted was not redundant in the eyes of a person skilled in the art, but rather the dependency on claim 1 was inaccurate from a purely legal point of view. Claim 3 was a false dependent claim and had to be considered as an independent claim. This view was adopted in the decision T 1444/13, and known in other jurisdiction, such as in Germany. In order to ensure uniform application of the law, particularly of Article 123(3) EPC, in case the Board of Appeal was not inclined to follow the principles laid down in decision T 1444/13, the Respondent requested that the Board refers a question to the Enlarged Board of Appeal (see point VI above).

With respect to the admittance of auxiliary request 2 and 3 in the proceedings, the Respondent argued that according to Article 25(2) RPBA 2020, Article 12 (4) to

(6) RPBA 2020 did not apply to any statement of grounds of appeal filed before the date of the entry into force and any reply to it filed in due time. Article 12(4) RPBA 2007 was still applicable for the present case. It was not required by the RPBA 2007 that the appeal case should be complete on appeal. Developments in the proceedings could justify amendments to a case. The claims of later auxiliary request differed from the claims of the previous requests in that the span value of greater than or equal to 15 nm had been limited to greater than or equal to 20 nm. These amendments were made in reply to the comments from the Board in its preliminary opinion in which a new claim interpretation was given. The amendments were not detrimental to procedural economy. No new case was created, and it was immediately apparent that the issue of Article 123(3) EPC was resolved without raising new issues. The requirements of Article 13(2) RPBA 2020 were also satisfied since the special circumstance could be seen in the amendment of the RPBA itself. In fact the proprietor could not expect the amendment of the RPBA by the time the appeal was filed. Not admitting the auxiliary requests 2 and 3 would violate the Respondent's right to be heard. This was underlined by the objection under Rule 106 EPC.

- XI. The Appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked.
  
- XII. The Respondent (patent proprietor) requested that the appeal be dismissed (main request), or subsidiarily, that the patent be maintained on the basis of one of the 1st to 3rd auxiliary requests, the 1st auxiliary request being filed with letter dated 10 March 2017, and the 2nd and 3rd auxiliary requests with letter dated 31 March 2021.

XIII. At the end of the oral proceedings held on 4 May 2021, the decision of the Board was announced.

### **Reasons for the Decision**

1. The appeal is admissible.

#### Amendments

2. According to the Appellant, claim 1 of the main and the first auxiliary request did not meet the requirements of Article 123(3) EPC.

The Respondent submitted that claim 1 of the main and first auxiliary request did not extend the scope of protection conferred by the patent as granted, since claim 3 of the patent as granted covered a lower span value, by volume, greater or equal to 15 nm, such that the scope of claim 1 of the main and first auxiliary requests was not broader than that of the granted claims as a whole.

3. Claim 3 of the patent as granted is dependent on claim 1, since it is worded as "An abrasive composition according to claim 1, wherein ...". Hence, claim 1 must be construed to incorporate all the limitations of claim 1, including the lower limit of the span value of 20 nm. Thus, the scope of protection afforded by granted dependent claim 3 cannot be greater than that provided by granted claim 1.

Since the lower limit of the span value in claim 1 of the main and first auxiliary requests is lower than that in granted independent claim 1, and its dependent claims, namely 15 nm instead of about 20 nm, the scope of protection which would be conferred by claim 1 of

the main and first auxiliary requests is broader than the scope of protection conferred by the claims as granted, such that the requirements of Article 123(3) EPC are not satisfied (also see T1702/12; point 4 of the reasons).

4. The Respondent argued that claim 3 as granted should be read as an independent claim since this claim comprised all the technical features to define the abrasive compositions. There was an inconsistency between the span value in granted independent claim 1 and dependent claim 3 of the patent as granted, since dependent claim 3 specified a lower limit for the span value of 15 nm, which was lower than the lower limit of 20 nm specified in claim 1 as granted. Claims are to be read by the technical understanding of the skilled person, and not by a lawyer. It was therefore clear that claim 3 was broader than claim 1 in this respect.

The Board disagrees. It is that there is an inconsistency between claim 1 and claim 3 since the range indicated in dependent claim 3 is larger than the range defined by independent claim 1. However, this inconsistency does not create an irresolvable contradiction between claim 1 and 3, and the skilled person will have no problem establishing that a feature of claim 3 may be redundant when read together with a feature of claim 1. In addition, even if the skilled person would consider that this inconsistency is the result of an error in the claims it cannot be concluded whether the lower limit of 20 nm specified in claim 1 or the lower limit of 15 nm in claim 3 and/or even the dependency of claim 3 to claim 1 was/were wrong.

The Board points out that establishing the scope of protection is a question of law. Indeed, scope of

protection is an issue which is typically decided by a judge in infringement proceedings. Thus the claims are not only to be read with the understanding of the technically skilled person, but also by the lawyer, and their scope has to be established accordingly. The overall purpose of the provisions of Article 123(3) EPC is primarily a legal purpose, namely legal certainty for third parties that they will not be confronted with broader claims after amendments made in opposition. Therefore the principle of legal certainty which is of utmost importance with regard to scope of protection conferred by the patent as granted must be taken into account and the general principle that a claim drafted as dependent claim contains all the features of the independent claim to which it refers must normally apply, as far as possible with a reasonable claim interpretation.

5. The Respondent argued that it must be concluded that the construction of the claim's dependency was formally wrong from a purely legal standpoint rather than concluding that a claim formally drafted by a dependent claim is "by law" narrower in scope than the independent claim. The Respondent referred to decision T 1444/13 to corroborate its argument.

However, it is noted that the factual situation in decision T 1444/13 was in fact different from that of the case at hand. In that case claim 1 of auxiliary request 1 arose from the introduction of the feature required by dependent claim 2 to independent claim 1 of the patent as granted, **without deleting or amending any features of claim 1 as granted**. The deciding Board concluded therefore that the scope of independent claim 1 of auxiliary request 1 was identical to that of claim 2 of the patent as granted (see Reasons, point 3.3),

because the independent claim 1 of the auxiliary request included all features of granted claim 2, when this latter was imagined as written out in full, including also the features of independent claim 1. This is why the deciding Board found that the amended claim did not contravene the requirements of Article 123(3) EPC.

The Board accepts that the findings in Reasons, point 3.4 of this decision suggests that there may be situations where a dependent claim must be considered to have a broader scope than the independent claim to which it refers, irrespective of the dependency. However, the deciding Board in that case did not give examples how such a situation may arise. Otherwise the deciding Board also considered that a dependent claim normally includes all the features of the independent claim to which it refers (see point 3.3). This Board holds that the situation of a broader dependent claim does not apply in the present case. As stated above in point 4., the Board does not interpret Claim 3 as granted as being broader than Claim 1 as granted.

The argument of the Respondent is therefore rejected.

*Referral to the Enlarged Board of Appeal*

6. The Respondent requested that a question be referred to the Enlarged Board of Appeal (see point VI. above). The Respondent based its request for referral on the fact that the conclusion that claim 1 of the main and auxiliary request 1 contravenes Article 123(3) EPC would be in contradiction with the approach adopted in decision T 1444/13 and thus prejudicial to an uniform application of the law.

In accordance with Article 112(1)(a) EPC 1973, a referral should only be made when a board considers that a decision of the Enlarged Board of Appeal is required for ensuring uniform application of the law or when a question of fundamental importance arises.

The Board has explained in detail why it considers in the present case that the dependent claim 3 comprises all the technical features of the independent claim 1 on which it depends (see point 4 above). Thus the Board can decide the case on its own. Moreover, as explained in point 5. above, the Board considers that the present case is in no direct contradiction with the findings of decision T 1444/13. The Board is also not aware that the approach of T 1444/13 have been followed by other decisions.

For these reasons the board does not see any necessity to refer the Respondents' questions to the Enlarged Board of Appeal.

*Second and third auxiliary requests - admittance  
(Article 13(2) RPBA 2020)*

7. The Respondent (patent proprietor) submitted that these auxiliary requests had been filed in response to the Board's communication under Article 15(1) RPBA 2020 dated 13 May 2020 indicating that according to its preliminary view, claim 1 of the main and first auxiliary request infringed the requirements of Article 123(3) EPC.

The summons to oral proceedings was notified on 8 May 2020. Thus, in accordance with Article 25(1) and (3) RPBA 2020, Article 13(2) RPBA 2020 applies to any amendment to the Respondent's appeal case made after



notification of the summons. The second and third auxiliary requests were filed by letter dated 31 March 2021, i.e. after the notification of the summons to oral proceedings.

Therefore, Article 13(2) RPBA 2020 applies with respect to the question of whether these requests should be admitted into the appeal proceedings.

8. The Respondent argued that according to Article 25(2) RPBA, the provision of Articles 12 and 13 RPBA 2007 still applied to these submissions.

However, pursuant to Article 25(2) RPBA 2020 Article 12(4) RPBA 2007 continues to apply to the grounds of appeal filed before the entry into force of RPBA 2020 as well as to any reply to it filed in due time. These transitional provisions do not include further submissions which are filed after the expiry of the due date for filing a response. Rather, the provisions of the RPBA 2020 concerning amendments to a party's appeal case apply.

9. The Appellant requested that the second and third auxiliary requests be not admitted into the appeal proceedings pursuant to Article 13(2) RPBA 2020.

According to Article 13(2) RPBA 2020, any amendment to a party's appeal case made after notification of a summons to oral proceedings should, in principle, not be taken into account unless there were exceptional circumstances, which had been justified with cogent reasons by the party concerned, i.e. in the present case, by the Respondent.

The Board fails to find in the present case exceptional circumstances as required by Article 13(2) RPBA 2020.

These requests were filed in order to overcome an objection that had already been raised by the Appellant during the opposition proceedings and in the statement setting out the grounds of appeal. In its preliminary opinion, the Board merely concurred with the Appellant's arguments set out in the statement of the ground of appeal. Therefore, the Board considers that its preliminary opinion on the issue of Article 123(3) EPC could not have been surprising for the Respondent, and does not constitute any exceptional circumstance justifying the late filing of further requests.

10. The Respondent argued that the amended claims of auxiliary requests 2 and 3 should be admitted in the proceedings since the provisional opinion of the Board differed from the finding of the Opposition Division on the issue of Article 123(3) EPC. It was not necessary for the Respondent to file the second and third auxiliary requests before the Board issued its negative opinion on the preceding requests. Furthermore, these new auxiliary requests clearly solved the issue of Article 123(3) EPC in question without adding any new issues.

The issue of Article 123(3) EPC was already discussed at the first-instance proceedings and had been reiterated by the Appellant in the statement of grounds of appeal. The Respondent had therefore to expect that the Board might express a provisional opinion that would be different from the opinion of the Opposition Division. Moreover, this preliminary opinion from the Board on the issue of Article 123(3) EPC was solely

based on objections raised in the statement of the grounds of appeal. The Respondent therefore could and should have formulated the second and third auxiliary requests in reply thereto, in a timely manner, before the Board had given its preliminary opinion. This was already so stipulated by Article 12(2) RPBA 2007: "... the reply [to the appeal] ... shall contain a party's complete case". The Respondent already had sufficient time before the summons to oral proceedings, to file auxiliary requests as a precautionary measure in view of the existing objections. This Respondent's argument is therefore rejected.

11. According to the Respondent, the special circumstance was also the change of the RPBA itself, since the amendment of the RPBA could not have been foreseen at the time when the appeal was filed. It could also not have been expected to prepare new submissions by 31 December 2019 merely because new rules entered into force.

However, the entry into force on 1 January 2020 of the new RPBA cannot justify the existence of exceptional circumstances within the meaning of Article 13(2) of this new RPBA. According to Article 25(1) RPBA 2020, the RPBA 2020 apply, as a general rule, to any appeal pending on the date of entry into force. This principle of immediate application is only subject to the two exceptions provided in Article 25(2) and (3) RPBA 2020, which does not cover the circumstances surrounding the present case.

Assuming, for the sake of argument, that the transitional provisions of Articles 25(2) and (3) RPBA 2020 do not provide an adequate framework for the late submissions in cases as the present one, i.e. where the

Board's communication was already issued under the new rules, the Board still has to establish that the filing of the auxiliary requests 2 and 3 should have been made earlier even under the previously applicable rules. Thus the argument that the respondent had no reason to take action before 31 December 2019 is not convincing.

Aspects of procedural economy as well as the fact that these auxiliary requests solve the issue of Article 123(3) EPC without creating other issues is irrelevant against this background.

Hence, the Board concludes that there are no exceptional circumstances justifying the admission of the second and third auxiliary requests in the appeal proceedings at this late stage. Consequently, the second and third auxiliary requests are not admitted to the proceedings (Article 13(2) RPBA 2020).

Right to be heard (Article 113(1) EPC)

12. The Respondent submitted that its right to be heard would not be respected if the Board did not admit auxiliary requests 2 and 3 in the proceedings.

However, the Respondent expressed itself extensively on the admittance of these requests in the proceedings. Thus the party was heard on the question of the admission. As these request were not admitted, it is unnecessary to discuss them on the merit. It is inherent in any non-admitted request that a party may not have the opportunity to be heard on all aspects of such a request.

The Board concludes therefore, that the Respondent's right to be heard under Article 113(1) EPC has been

respected, and dismisses the objection under Rule 106 EPC.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked

The Registrar:

The Chairman:



C. Rodríguez Rodríguez

P. Gryczka

Decision electronically authenticated