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**Datasheet for the decision
of 10 February 2020**

Case Number: T 0852/16 - 3.2.03

Application Number: 06725588.5

Publication Number: 1896631

IPC: C23G1/12, C23G1/22, C23G5/02,
B41N1/08, B41N3/03

Language of the proceedings: EN

Title of invention:
CONDITIONING OF A LITHO STRIP

Patent Proprietor:
Hydro Aluminium Rolled Products GmbH

Opponent:
Novelis Inc.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 83, 56, 100

Keyword:

Amendments - extension beyond the content of the application
as filed (no)

Sufficiency of disclosure - enabling disclosure (yes)

Grounds for opposition - clarity in opposition appeal
proceedings

Inventive step - non-obvious alternative

Decisions cited:

G 0003/14

Catchword:



Beschwerdekammern

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Case Number: T 0852/16 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 10 February 2020

Appellant: Hydro Aluminium Rolled Products GmbH
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
1 February 2016 concerning maintenance of the
European Patent No. 1896631 in amended form.**

Composition of the Board:

Chairman G. Ashley
Members: B. Miller
D. Prietzel-Funk

Summary of Facts and Submissions

- I. European patent No. 1 896 631 (hereinafter: the patent) relates to a method for conditioning a lithostrip or lithosheet.
- II. An opposition was filed against the patent, based on the grounds of Article 100(b) and (c) EPC and of Article 100(a) EPC together with both Articles 54 and 56 EPC.
- III. In the interlocutory decision the opposition division found that the contested patent met the requirements of the EPC on the basis of the claims of the 3rd auxiliary request submitted during the oral proceedings on 30 November 2015.

This decision was appealed by both parties. As the patent proprietor and the opponent were appellants and respondents in the present proceedings, for simplicity, the Board continues to refer to the parties as the proprietor and the opponent in this decision.

The proprietor requested in the statement setting out the grounds of appeal that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 7 as granted (main request), alternatively on the basis of the claims of one of auxiliary requests I to III submitted with the statement setting out the grounds of appeal.

The opponent requested that the decision under appeal be set aside and the patent be revoked.

IV. State of the art

The following documents submitted during the opposition proceedings are considered in the present decision:

- D8: J. Ball et al., "A New Electrolytic Cleaning Cell", International Symposium on Aluminium Surface Science and Technology, 12 to 15 May 1997, pages 1 to 8;
- D8a: Cover sheet and the table of contents of D8;
- D10: PhD Thesis from Guy Buytaert, published 2006, Vrije Universiteit Brussel;
- D11: DE 43 17 815 C1;
- D14: WO 2007/045676;
- D15: EP 0 778 158;
- D17: B. Kernig, H. Terryn and A. Hubin, "Development of Grained Surfaces During EC Graining In Hydrochloric and Nitric Acid", Proceedings of the ASST Bonn, 2000, pages 335 to 341.

V. With the summons to oral proceedings, the Board sent a communication pursuant to Articles 15(1) and 17(2) of the Rules of Procedure of the Boards of Appeal (2007) (RPBA (2007)) indicating to the parties its preliminary opinion of the case.

VI. With letter dated 10 December 2019 the opponent declared that it would not attend the oral proceedings, which consequently took place on 10 February 2020 in its absence, pursuant to Rule 115(2) EPC and Article 15(3) RPBA (2020).

VII. During the oral proceedings the proprietor withdrew its appeal. Hence the following final requests were to be considered.

The opponent, as sole appellant, requested that the decision under appeal be set aside and the patent be revoked.

The proprietor, as respondent, requested that the appeal of the opponent be dismissed.

VIII. The contested decision is based on the following independent claim 1 according to the 3rd auxiliary request before the opposition division, which also forms the basis for the present decision:

"Method of conditioning the surface of a lithostrip consisting of an aluminium alloy, which method comprises at least the two steps

- degreasing the surface of the lithostrip with a degreasing medium and subsequently

- cleaning the surface of the lithostrip by pickling,

characterized in that said conditioning is done prior electro-chemical graining and wherein the degreasing medium contains at least 1,5 to 3% by weight of a composite of 5 - 40% sodium tripolyphosphate, 3 - 10 % sodium gluconate, 30 - 70% soda and 3 - 8% of a composite of non-ionic and anionic surfactants and sodium hydroxide or phosphoric acid is utilised for pickling or pickling comprises AC-cleaning with phosphoric acid, so that the lithostrip is almost free of rolled-in subsurface oxide particles."

Claim 2 relates to a preferred embodiment of the method according to claim 1.

IX. The opponent's respective arguments can be summarised as follows.

The addition of the feature "said conditioning is done prior electrochemical graining" to claim 1 as filed went beyond the teaching as originally filed, since this feature was not disclosed in the application as filed in the context of a two step method as defined in claim 1.

The information in the patent was not sufficient for the skilled person to enable him to repeat the method according to claim 1 without undue burden, since it was not clear what was to be understood as a degreasing and pickling step. The degreasing medium defined in claim 1 also achieved a pickling effect, as is evidenced by D14. Figures 3a) and 3b) in D13 and figures 7a) and 7b) of D13 were identical to figure 1a) of the contested patent, despite the fact that different production methods have been used. This demonstrated that figure 1a) of the patent did not show a product of an example of the claimed method.

The features added to claim 1 as granted rendered the wording unclear, since the degreasing medium defined therein had not only a degreasing function but was also a pickling composition. Moreover, the meaning of the expression "rolled-in subsurface oxide particles" was unclear.

The method according to claim 1 differed from the conditioning method according to D15 by the choice of the degreasing composition.

The patent did not demonstrate any particular effect which was obtained by using the degreasing composition defined in claim 1. The objective technical problem could therefore be regarded as to provide an alternative.

In order to provide an alternative method the skilled person would use any known equivalent degreasing composition without requiring inventive skills. Therefore it was obvious to use the degreasing composition known from D11 in the method according to D15.

The same argument applied when starting from D8 or D17 as the closest prior art.

- X. The proprietor's arguments, as far as relevant for this decision, can be summarised as follows.

Claim 1 as filed was amended by defining that "the lithostrip is almost free of rolled-in subsurface oxide particles" in line with the teaching of the application as filed. Therefore the amendments did not extend beyond the disclosure as originally filed.

The patent disclosed in detail how the conditioning method of claim 1 had to be performed. The opponent had not demonstrated that the skilled person was confronted with any difficulty in repeating the method according to claim 1. The claimed invention was thus sufficiently disclosed.

Clarity was not a ground of opposition and therefore was not to be discussed in appeal.

Starting from document D15 as the closest prior art it was not obvious to use the degreasing composition as defined in claim 1. The skilled person had no incentive to use the composition known from D11 in a method according to D15. The same reasoning applied when starting from D8 or D17.

Reasons for the Decision

1. Article 100 (c) EPC

Claim 1 as filed has been amended inter alia by adding the following feature:

"said conditioning is done prior electrochemical graining".

The application as originally filed (reference is made in the following to the application as published: WO2006/122852 A1) repeatedly teaches that the claimed conditioning method is performed in order to prepare the surface of an aluminium strip or sheet for electrochemical graining, see page 1, line 21 to page 2, line 16; page 2, lines 26 to 31; page 5, lines 16 to 20 and page 9, lines 19 to 23.

Hence this amendment to claim 1 does not extend the disclosure as originally filed. The ground of opposition pursuant to Article 100(c) EPC therefore does not prejudice the maintenance of the claims of the 3rd auxiliary request on which the contested decision is based.

2. Articles 100(b) EPC

Claim 1 requires a degreasing and a pickling step. No technical obstacle exists which would prevent the skilled person from treating a lithostrip with a degreasing composition as defined in claim 1 and then by a conventional pickling step using one of the methods defined in claim 1.

In order to repeat the method according to claim 1 the skilled person does not have to rely on the SEM images shown in figure 1 of the contested patent. Whether these images were taken from a sample obtained by the method defined by claim 1 or by an alternative method as alleged by the opponent does not detract the skilled person from repeating a conditioning method comprising both a conventional degreasing and a pickling step.

Moreover, claim 1 does not exclude that pickling may take place during the degreasing step. Hence the skilled person is not confronted with any difficulty when performing a degreasing step by using the degreasing medium defined in claim 1, that also has a pickling effect.

The ground of opposition pursuant to Article 100(b) EPC therefore does not prejudice the maintenance of the claims of the 3rd auxiliary request on which the contested decision is based.

3. Article 84 EPC

Clarity is not a ground of opposition pursuant to Article 100 EPC and can only be discussed in inter-partes appeal proceedings in line with the principles set out in G3/14.

Claim 1 as granted has been amended by introducing the feature "so that the lithostrip is almost free of rolled-in subsurface oxide particles" and by defining the degreasing medium in detail.

The feature that the lithostrip is almost free of subsurface oxide particles is already present in claim 5 as granted, which relates to a lithostrip or lithosheet conditioned by the method of claim 1 as granted.

It is not apparent that a lack of clarity is introduced by repeating this feature in claim 1 in the context of the method. Also the further definition that the subsurface oxide particles are rolled-in subsurface oxide particles does not create any doubts concerning the meaning of this expression. For the skilled person it is immediately apparent that the surface of the lithostrip to be obtained by the method of claim 1 should be free of any oxide particles including the particles which are rolled-in.

Claim 1 as granted defines that the first method step is a degreasing composition. The question whether or not a degreasing step can achieve simultaneously a pickling effect applied already for claim 1 as granted. The further definition of the composition of the degreasing medium does not generate a further doubt concerning the meaning of the term degreasing but rather makes it clearer by defining the composition of the degreasing medium.

In summary, the features identified above are not rendered unclear by the amendments to the claims as granted. The conditions set out in G3/14 are thus not

met and the clarity of claim 1 underlying this decision cannot be discussed in appeal.

4. Articles 100(a) EPC

4.1 The Board agrees with the statement in point 2.5.1.1 of the impugned decision that D15 is the most relevant document for the assessment of inventive step with regard to the method of claim 1, because it discloses a two-step conditioning method (D15, page 3, lines 11 to 18) for a lithographic aluminium alloy and therefore deals with the same general problem as the contested patent.

4.2 The method described on page 3, lines 10 to 18 of D15 comprises the steps of:

- degreasing the surface of the aluminium substrate with a solution of sodium hydroxide and subsequently
- etching the surface of the aluminium substrate with a solution of sodium hydroxide.

An etching step usually removes oxide particles on the surface. Therefore the method according to D15 is considered to achieve the result as defined in claim 1, namely that of obtaining a surface almost free of oxide particles.

Although in the examples of D15 reference is made to a web, this cannot be distinguished from a strip.

4.3 The subject-matter of claim 1 thus differs from the conditioning method disclosed in D15 in that the degreasing medium contains at least 1,5 to 3% by weight of a composite of 5 - 40% sodium tripolyphosphate, 3 -

10 % sodium gluconate, 30 - 70% soda and 3 - 8% of a composite of non-ionic and anionic surfactants.

- 4.4 With respect to this specific degreasing medium, the contested patent merely describes in paragraph [0015] that it is effective in removing rolling oil and other contaminants.

However, there is no indication, that the use of the specific degreasing composition provides a particular effect compared to the use of alternative degreasing compositions described in paragraph [0014] of the contested patent, and which are also used in the method disclosed in D15. In particular it has not been demonstrated that the degreasing composition defined in claim 1 is more effective at degreasing than a sodium hydroxide solution used according to D15.

The objective technical problem can therefore be formulated as to provide an alternative conditioning method.

- 4.5 D11 (claim 1) discloses a degreasing composition for aluminium chips having the same composition as the degreasing medium according to claim 1.

However, the skilled person starting from D15 does not find any indication in D15 itself or in D11 that the composition proposed by D11 for cleaning aluminium chips could also be used for degreasing an aluminium web in the method according to D15.

On the contrary, D11 describes in column 5, lines 38 to 40 that the degreasing step requires 20 minutes. This statement creates doubts for the skilled person that the composition is suitable for the method according to

D15, according to which the degreasing should be completed within 10 to 180 seconds.

Hence, D11 teaches away from using the degreasing composition disclosed therein for a method requiring much faster degreasing action.

The Board therefore reaches the conclusion that the subject-matter of claim 1 is not rendered obvious when starting from D15 and considering D11.

4.6 In the statement setting out the grounds of appeal the opponent further argued that the subject-matter of claim 1 lacked an inventive step starting from D8 or D17, the latter being late filed in opposition proceedings and was not admitted into the proceedings by the opposition division.

In point 9.3 and point 10.1 of the annex to the summons the Board informed the parties of its preliminary opinion that it considered

- a) D17 not to be more relevant than D15 and
- b) D15 to represent the most relevant document for the assessment of inventive step.

The subject-matter of claim 1 differs from the methods described in D8 and D17 at least by the same feature as with regard to D15.

Moreover, the methods described in both documents, D8 and D17 require the degreasing to take place within 10 seconds (see table 2 of D8 and page 2, left-hand column, second paragraph of the experimental section of D17) as is the case for D15.

Hence, for the same reasons as indicated in paragraph 4.5 above, the skilled person would not consider the composition known from D11 to be suitable in a method according to D8 or D17.

Therefore the Board does not consider it necessary to discuss whether the opposition division exercised its discretion for not-admitting D17 into the proceedings appropriately, and whether D17 should be excluded by the Board from the appeal proceedings by exercising its discretion pursuant to Article 12(4) RPBA 2007, which is applicable in this proceedings according to Art. 24, 25 RPBA 2020.

- 4.7 In summary, the ground of opposition pursuant to Article 100(a) EPC does not prejudice the maintenance of the claims of the 3rd auxiliary request on which the contested decision is based.
- 4.8 Thus, the appeal of the opponent is not allowable.

Order

For these reasons it is decided that:

The appeal of the opponent is dismissed.

The Registrar:

The Chairman:



C. Spira

G. Ashley

Decision electronically authenticated