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**Datasheet for the decision
of 29 October 2020**

Case Number: T 1246/16 - 3.2.03

Application Number: 07727286.2

Publication Number: 2004874

IPC: C23C22/34, C23C22/36,
C23C22/73, B21D22/20, B21D51/26

Language of the proceedings: EN

Title of invention:

METHOD FOR COATING OF METALLIC COIL OR SHEETS FOR PRODUCING
CONTAINERS

Patent Proprietor:

Chemetall GmbH

Opponent:

Henkel AG & Co. KGaA

Headword:

Relevant legal provisions:

EPC Art. 56
RPBA 2020 Art. 13(1)

Keyword:

Inventive step - reasonable expectation of success (yes) -
obvious modification

Late-filed auxiliary requests - justification for late filing
(no) - request clearly allowable (no)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1246/16 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 29 October 2020

Appellant: Henkel AG & Co. KGaA
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
22 March 2016 concerning maintenance of the
European Patent No. 2004874 in amended form.**

Composition of the Board:

Chairwoman E. Kossonakou
Members: B. Miller
B. Goers

Summary of Facts and Submissions

- I. European patent No. 2 004 874 (in the following: the patent) relates to a method for coating of a metallic coil or of metallic sheets.
- II. An opposition was filed against the patent, based on the grounds of Article 100(b) EPC and of Article 100(a) EPC together with both Articles 54 and 56 EPC. The opposition division decided that the patent met the requirements of the EPC, on the basis of the claims of the main request submitted during the oral proceedings on 7 March 2016.
- III. This decision was appealed by the opponent (in the following: the appellant). It requested that the decision under appeal be set aside and that the patent be revoked. In the grounds of appeal, the appellant challenged inventiveness of claim 1 of the main request.
- IV. State of the art

The following document cited already during the opposition proceedings is of importance for the present decision:

D2: WO 02/31064 A1.

The following document was cited for the first time in the appeal proceedings by the respondent:

D7: printout from the online-version of the Duden concerning the term "Behälter", 3 pages.

- V. With the summons to oral proceedings dated 26 August 2019, the Board sent a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA 2007) indicating to the parties its preliminary opinion of the case.
- VI. With letter dated 28 February 2020 the respondent filed auxiliary requests 1 to 5 and submitted further arguments in regard to inventive step.
- VII. Due to precautionary measures against the spread of the coronavirus (Covid-19), the oral proceedings scheduled for 21 April 2020 were cancelled and a new date was set for 29 October 2020.
- VIII. With letter dated 16 September 2020 the respondent declared that it did not agree that the oral proceedings be held as video conference and that it intended to attend the oral proceedings.
- IX. With a letter dated 30 September 2020 the appellant requested that the oral proceedings be held as video conference, alternatively that they be postponed due to the Covid-19 pandemic. It further announced that it would not attend the oral proceedings should its requests for video conference and postponement be refused.
- X. In a communication dated 21 October 2020 the Board informed the parties that without the consent of both parties for a video conference and in the absence of any travel restrictions impeding attendance in person, the oral proceedings would take place as scheduled.

XI. Oral proceedings were held on 29 October 2020 in the absence of the appellant pursuant to Article 15(3) RPBA 2020 and Rule 115(2) EPC.

XII. The following was requested by the parties:

The appellant requested that the contested decision be set aside and that the patent be revoked.

The respondent requested that the appeal be dismissed, alternatively that the patent be maintained in amended form on the basis of the claims according to one of the auxiliary requests 1 to 5 filed with the letter dated 28 February 2020.

XIII. Wording of independent claim 1

Claim 1 according to the main request including the amendments compared to claim 1 as granted reads as follows:

"A method for coating of a metallic coil or of metallic sheets with an aqueous coating composition comprising at least one compound selected from the group consisting of zirconium compounds, titanium compounds and hafnium compounds whereby the such treated metallic coil or metallic sheets is/are shaped by ~~cold extruding, by deep-drawing, by drawing, by necking, by punching, by wall ironing or by any combination of such process steps~~ to a hollow article like a container ~~or a casing~~ and is then cleaned and optionally further coated either by chemical pre-treatment and then by coating with ink or paint or both or by chemical treatment."

Claim 1 of auxiliary request 1 corresponds to claim 1 of the main request.

Claim 1 of auxiliary request 2 corresponds to claim 1 of the main request whereby the expression "deep-drawing to a container" has been replaced by "deep-drawing to a can".

Claim 1 of auxiliary request 3 corresponds to claim 1 of auxiliary request 2 whereby the following further expression has been added at the end of the claim:

"wherein the can is a beverage can or food can."

Claim 1 of auxiliary request 4 corresponds to claim 1 of the main request whereby the expression "deep-drawing to a container" has been replaced by "deep-drawing in a cup-maker and in a body-maker to a can".

Claim 1 of auxiliary request 5 corresponds to claim 1 of auxiliary request 4 whereby the following further expression has been added at the end of the claim:

"wherein the can is a beverage can or food can."

XIV. The appellant's arguments can be summarised as follows.

D2 was a suitable starting point for the assessment of inventive step of claim 1 of the main request, since it was directed to a method of coating metallic sheets, similar to the patent.

The subject-matter of claim 1 of the main request only differed from the method described in D2 in that the method comprised a further cleaning step.

Cleaning a deep-drawn article came within the customary practice of the skilled person. Therefore the subject-matter of claim 1 lacked an inventive step, contrary to Article 56 EPC.

XV. The respondent's respective arguments can be summarised as follows.

D2 did not relate to deep-drawn containers but to parts for car manufacturing and therefore was not a suitable starting point.

The Erichsen test as disclosed in D2 did not include a deep-drawing step nor was the produced test body a container. The subject-matter of claim 1 therefore differed from the process of D2 in that the coated metal sheet or coil is shaped by deep-drawing into a container and is then cleaned.

D2 did not provide any hint to the skilled person that it was beneficial or even possible to coat the metal sheet before deep-drawing and cleaning.

The auxiliary requests 1 to 5 should be admitted into the proceedings, since they did not give rise to further objections and contributed to further distinguish the claimed subject-matter from the disclosure in D2.

Reasons for the Decision

1. Applicable Rules of Procedure of the Boards of Appeal

The appeal was filed before the entry into force of the revised version of the Rules of Procedure of the Boards of Appeal (RPBA 2020) on 1 January 2020. In accordance with the transitional provisions laid down in Article 25 RPBA 2020, the RPBA 2020 is applicable to appeals already pending on the date of entry into force as well as to appeals filed thereafter (Article 25 (1) RPBA 2020).

2. Article 100(a) EPC in combination with Article 56 EPC - main request

2.1 Claim 1 is directed to a "method for coating of a metallic coil or of metallic sheets". It further defines that the coated sheet is shaped by deep-drawing to a container and then cleaned.

Contrary to the argument of the respondent, claim 1 does not relate to a manufacturing process for a container but focuses on a coating process obtaining a coated metal substrate which can be further shaped by deep-drawing.

2.1.1 The main purpose of the method of claim 1 is therefore to provide a coating on a metallic surface which can be shaped afterwards.

D2 also aims at a method of coating metallic surfaces which can be further mechanically worked as indicated on page 1, lines 18 to 21:

"Die Korrosionsschutzschicht(en) soll(en) zusammen mit dem Lack oder einer lackähnlichen Schicht gut umformbar sein und soll(en) auch nach dem Umformen einen guten Korrosionsschutz und eine gute Lackhaftung aufweisen."

Hence, D2 deals with the same general problem as the patent and represents a suitable starting point for the assessment of inventive step.

2.1.2 Claim 1 of the main request requires that the coated metal is deep-drawn to a "container". The term container in claim 1 has a broad and general meaning and encompasses any object which can hold something.

This commonly accepted interpretation of the term "container" is not put into question by D7, which relates to the term "Behälter". It explains the meaning of a possible German translation of the term "container" but does not prove the meaning of the actual English term as used in claim 1 of the main request.

2.1.3 A more limited interpretation of the term "container", namely that it completely encloses and protects its content during transport and storage, as argued by the respondent, does not reflect its commonly accepted meaning and does not even make technical sense in the context of claim 1, since in a deep-drawing process at least one side of the deep-drawn body remains open.

2.1.4 This also applies to can production, a preferred embodiment of the contested patent, where a "cup" is obtained by deep-drawing, which is then further shaped in a body maker, see paragraphs [0005],[0006] and [0102] of the patent. Therefore the can body at the

stage after deep-drawing is an open cup and not a sealed container that can hold and protect a liquid during transport.

2.1.5 Furthermore, a container is also not limited in size.

Therefore, a cup of any size, including a deep-drawn cup obtained by the Erichsen Test as described in detail on pages 80 and 81 of D2, is a deep-drawn container in the sense of claim 1.

2.1.6 D2 discloses in the examples 11 to 20 and 30 to 40 a process for coating a Galvalume steel sheet (aluminium zinc alloy coated sheet steel) with an aqueous composition comprising a zirconium compound (hexafluoro zirconic acid or ammonium zirconium carbonate). The formability of the coated steel sheet is tested by the Erichsen test (see tables 7 and 16) which results in a deep-drawn cup (see page 80, line 12 to page 81 line 2, in particular last line on page 80).

2.1.7 The subject-matter of claim 1 differs from the coating process described in D2 only in that it comprises a further cleaning step.

Cleaning after shaping constitutes however a conventional process step, in particular when further coating or painting steps are envisaged. Hence cleaning a deep-drawn article comes within the customary practice of the skilled person, as evidenced by the patent itself in paragraph [0006] by describing the conventional process steps in a so-called washer.

2.2 Should the cup obtained by the Erichsen Test according to D2 not be considered as a container according to claim 1 of the main request as argued by the

respondent, the subject-matter of claim 1 would still lack an inventive step.

- 2.2.1 The Erichsen test results reported in the examples of D2 clearly demonstrate that the metal sheets obtained by the coating method described therein can be subjected to a further forming step, in particular a deep-drawing step as used in the Erichsen test itself.
- 2.2.2 Moreover, contrary to the arguments of the respondent, D2 is not limited to a process in car manufacturing. In claims 128 and 129 and in the paragraph bridging pages 22 and 23 of D2 it is rather taught that the general coating method of claim 1 is suitable in various technical areas including for example household products and that it allows subsequent manufacture of parts of any shape, even including bodies with complex geometry. Furthermore, claim 52 of D2 teaches that various metal surfaces can be coated by the method of claim 1.

It follows that the skilled person would expect the coating method of D2 to be suitable for producing any article having any arbitrary shape which is obtainable by further deep-drawing, including a container when needed.

- 2.2.3 Repeating the coating method according to D2 with a metal sheet and forming a container by a conventional deep-drawing step therefore does not require any inventive skills by the skilled person but would be performed together with a conventional cleaning step within the person's experimental routine when starting from D2.

- 2.3 Hence, the subject-matter of claim 1 of the main request is obvious when starting from D2 and does not fulfil the requirements of Article 56 EPC.
3. Admissibility of auxiliary requests 1 to 5
 - 3.1 Auxiliary requests 1 to 5 have been filed after receipt of the summons to attend oral proceedings. According to Article 13(1) RPBA 2020 their admissibility is within the discretion of the Board.
 - 3.2 According to established jurisprudence, now codified in this provision of the Rules of procedure, while exercising its discretion the Board takes into consideration inter alia (i) whether sound reasons exist for filing an auxiliary request so late into the proceedings and (ii) whether the request is clearly or obviously allowable, see Case Law of the Boards of Appeal, 9th edition, 2019, Chapter V.A.4.5.1 a).
 - 3.3 In the present case, no sound reasons have been presented as to why the auxiliary requests have been filed only after the receipt of the summons. The mere fact that the preliminary opinion of the Board indicated that the appellant's arguments might be considered convincing is not a sufficient or indeed an appropriate reason to react so late in the proceedings to the arguments presented by the appellant already in the statement setting out the grounds of appeal.
 - 3.4 Moreover, the amendments to claim 1 of each of auxiliary requests 1 to 5 do not contribute to render any of the requests prima facie allowable.
 - 3.4.1 Claim 1 of auxiliary request 1 is identical to claim 1 of the main request and therefore the same arguments

regarding lack of inventive step apply, rendering admittance of auxiliary request 1 into the proceedings pointless.

3.4.2 Claim 1 of auxiliary request 2 specifies that the coating method comprises a step of shaping the coated metallic sheet or coil by deep-drawing to a can.

(a) Should the term "can" be interpreted as a sealed container protecting its content during storage and transport as argued by the respondent, then the newly generated wording "deep-drawing to a can" lacks clarity (Article 84 EPC), since a closed and sealed can cannot be obtained simply by deep-drawing. Such a process rather leads to the formation of an open can body, a so-called "cup", since a punch is required during the deep-drawing action.

(b) Should the term "can" in the context of claim 1 refer to an open can body, it does not change the argument in regard to inventive step (Article 56 EPC) with respect to D2 as the starting point, since the term "can", similar to the term "container", in this context does not imply any further limitations compared to an Erichsen cup. Hence, the deep-drawn cup resulting from the Erichsen test cannot be distinguished from a can body.

Moreover, also when starting from the general concept in D2 of first coating and then shaping a metallic sheet or coil, selecting an arbitrary conventional shape such as a can body does not require any inventive skills by the skilled person for the same reasons as for a container.

Therefore the subject-matter of claim 1 of auxiliary request 2 is not prima facie allowable for the same reasons as indicated above in relation to the main request.

- 3.4.3 Claim 1 of auxiliary request 3 specifies that the can is a food or beverage can. Also this further amendment does, compared to auxiliary request 2, not change the argument with respect either to clarity or to inventive step, since the intended use of the final can does not provide any limitation on the coating method as defined in claim 1.

Therefore the subject-matter of claim 1 of auxiliary request 3 is prima facie not allowable for the same reasons as claim 1 of auxiliary request 2.

- 3.5 Claim 1 of auxiliary request 4 defines that the metallic sheet or coil is shaped by "deep-drawing in a cup-maker and in a body maker to a can".

This amendment is prima facie not derivable from the application as originally filed contrary to the requirement of Article 123(2) EPC.

- 3.5.1 Claim 1 as filed discloses that the shaping process can be selected from "cold extruding, (by) deep-drawing, (by) drawing, (by) necking, (by) punching, (by) wall ironing or (by) any combination of such process steps" and results in a "hollow article like a container or casing".

Claim 2 as filed on the other hand defines that "the article to be produced is a can or a casing".

Claim 9 as filed furthermore discloses that "the coated metallic coil or sheets is/are shaped in a cup-maker and in a body maker".

Hence the claims as filed disclose that the final article to be produced is possibly a can, that in the shaping process it is possible to use a deep-drawing process step and that a cup-maker and a body-maker can be used for shaping.

- 3.5.2 However, the claims as filed do not provide a direct and unambiguous disclosure for the combination of features generated by claim 1 of auxiliary request 4, that deep-drawing is to be performed in both the cup-maker and the body maker in order to directly shape a can.
- 3.5.3 The combination of features is also not derivable from the general description of the application as filed. In particular with respect to the body-maker it is not disclosed therein that this tool performs also deep-drawing. It is rather disclosed that the deep-drawn cup derived from the cup-maker is further shaped in the body-maker by a drawing and wall ironing process (page 2, lines 9 to 12) or by punching in a punching press whereby the diameter of each cup is significantly narrowed (page 16, lines 13 to 15 and page 32, lines 8 to 10).
- 3.5.4 Hence the amendments to claim 1 of auxiliary request 4 prima facie do not fulfil the requirements of Article 123(2) EPC.
- 3.6 Claim 1 of auxiliary request 5 also defines that the metallic sheet or coil is shaped by "deep-drawing in a cup-maker and in a body maker to a can".

Therefore the subject-matter of claim 1 of auxiliary request 5 is not obviously allowable for the same reasons as claim 1 of auxiliary request 4.

- 3.7 In the exercise of its discretion under Article 13(1) RPBA 2020 the Board therefore decides not to admit any of auxiliary requests 1 to 5 into the appeal proceedings.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairwoman:



C. Spira

E. Kossonakou

Decision electronically authenticated