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**Datasheet for the decision  
of 7 May 2024**

**Case Number:** T 0172/22 - 3.2.07

**Application Number:** 14874709.0

**Publication Number:** 3088558

**IPC:** C23C2/12, C22C38/00, C23C2/26,  
C23C28/00, C22C21/08, C22C21/06

**Language of the proceedings:** EN

**Title of invention:**  
STEEL SHEET FOR HOT PRESS FORMING WITH EXCELLENT CORROSION  
RESISTANCE AND WELDABILITY, FORMING MEMBER, AND MANUFACTURING  
METHOD THEREFOR

**Patent Proprietor:**  
POSCO

**Opponent:**  
ArcelorMittal

**Relevant legal provisions:**  
EPC Art. 123(2)  
RPBA 2020 Art. 12(6), 13(1), 13(2)

**Keyword:**

Amendment after summons - evidence of common general knowledge  
- cogent reasons (yes) - exceptional circumstances (yes) -  
taken into account (yes)

Late-filed requests - should have been submitted in opposition  
proceedings (yes) - admitted (no)

Amendments - added subject-matter (yes)

**Decisions cited:**

T 1800/21, T 0494/18, T 2295/19, T 1569/17, T 2229/19,

T 0156/15



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 0172/22 - 3.2.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.07**  
**of 7 May 2024**

**Appellant:** ArcelorMittal  
(Opponent) 24-26, Boulevard d'Avranches  
1160 Luxembourg (LU)

**Representative:** Lavoix  
2, place d'Estienne d'Orves  
75441 Paris Cedex 09 (FR)

**Respondent:** POSCO  
(Patent Proprietor) (Goedong-dong) 6261  
Donghaean-ro  
Nam-gu, Pohang-si  
Gyeongsangbuk-do 790-300 (KR)

**Representative:** Meissner Bolte Partnerschaft mbB  
Patentanwälte Rechtsanwälte  
Postfach 86 06 24  
81633 München (DE)

**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
23 November 2021 concerning maintenance of the  
European Patent No. 3088558 in amended form.**

**Composition of the Board:**

**Chairman** G. Patton  
**Members:** A. Cano Palmero  
R. Cramer

## **Summary of Facts and Submissions**

- I. The opponent (appellant) lodged an appeal within the prescribed period and in the prescribed form against the decision of the opposition division to maintain European patent No. 3 088 558 in amended form on the basis of the then auxiliary request 42.
- II. An opposition was filed against the patent in its entirety and based on the grounds for opposition pursuant to Articles 100(a), (b) and (c) EPC (novelty, inventive step, sufficiency of disclosure and added subject-matter).
- III. In preparation for oral proceedings, scheduled at the parties' requests, the board communicated its preliminary assessment of the case to the parties by means of a communication pursuant to Article 15(1) RPBA. The parties responded to the board's communication in the substance, namely the patent proprietor (respondent) with letters dated 2 April 2024 and 3 May 2024 and the appellant with letter of 9 April 2024.
- IV. Oral proceedings before the board took place on 7 May 2024. At the conclusion of the oral proceedings the decision was announced. Further details of the proceedings can be found in the minutes thereof.
- V. The final requests of the parties are as follows:  
  
for the appellant,  
  
that the decision under appeal be set aside  
and

that the patent be revoked;

for the respondent,

that the appeal be dismissed, *i.e.* that the patent be maintained in the amended form found by the opposition division to meet the requirements of the EPC according to the then auxiliary request 42 (main request),

or, when setting aside the decision under appeal, that the patent be maintained in amended form according to one of the sets of claims according to auxiliary requests 42a, 43 to 72, 72a, and 73 to 79, whereby auxiliary requests 43 to 79 were submitted during opposition proceedings and auxiliary requests 42a and 72a were filed during the oral proceedings before the board.

VI. The following documents have been filed during the opposition proceedings and are relied upon by the parties in the present appeal proceedings:

- D19: Jenner F. et al., "Evolution of phases and microstructure during heat treatment of aluminized low carbon steel", Materials Science and Technology, 5-9 October 2008, Pittsburgh, Pennsylvania, "Steel Product Metallurgy and Applications", pages 1722-1732;
- D20: Fan W. D. et al., "Formation of aluminide coating on hot stamped steel", ISIJ International, Vol. 50, 2010, No 11, pages 1713-1718;
- D23: Liang W. et al., "Influence of heating parameters on properties of the Al-Si coating applied to hot stamping",

Science China, Technology Sciences, Vol. 60, July 2017, No 7, pages 1088-1102.

VII. The following documents have been filed by the appellant for the first time with its reply of 9 April 2024 to the board's communication under Article 15(1) RPBA:

D28: Fan W. D. et al., "State of the knowledge on Coating Systems for Hot Stamped Parts", steel research int. 83, 2012, No 5, pages 412-433;

D29: Fan W. D. et al., "Coating degradation in Hot Press Forming", ISIJ International, Vol. 50, 2010, No 4, pages 561-568.

VIII. The lines of argument of the parties relevant for the present decision are dealt with in detail in the reasons for the decision.

IX. **Claim 4** of the **main request** (*i.e.* according to the patent as maintained by the opposition division) reads as follows:

"A hot press forming member comprising:  
a base steel sheet;  
an aluminum-magnesium alloy plating layer formed on at least one surface of the base steel sheet; and  
an oxide film layer formed in an upper part of the aluminum-magnesium alloy plating layer,  
wherein the base steel sheet includes 0.1 wt% to 0.4 wt% of carbon (C), 0.05 wt% to 1.5 wt% of silicon (Si), 0.5 wt% to 3.0 wt% of manganese (Mn), and iron (Fe) as a residual component thereof,  
wherein the base steel sheet optionally further

includes one or more selected from a group consisting of 0.001 wt% to 0.02 wt% of nitrogen (N), 0.0001 wt% to 0.01 wt% of boron (B), 0.001 wt% to 0.1 wt% of titanium (Ti), 0.001 wt% to 0.1 wt% of niobium (Nb), 0.001 wt% to 0.01 wt% of vanadium (V), 0.001 wt% to 1.0 wt% of chromium (Cr), 0.001 wt% to 1.0 wt% of molybdenum (Mo), 0.001 wt% to 0.1 wt% of antimony (Sb), and 0.001 wt% to 0.3 wt% of tungsten (W),

wherein the oxide film layer includes an element having a higher degree of oxidation than a degree of oxidation of magnesium (Mg) included in the aluminum-magnesium alloy plating layer, wherein the element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg) is one or more selected from a group consisting of beryllium (Be), calcium (Ca), lithium (Li), and sodium (Na),

wherein the aluminum-magnesium alloy plating layer includes 0.5 wt% to 10 wt% of magnesium (Mg), and 0.0005 wt% to 0.05 wt% of the element having a higher degree of oxidation than the magnesium (Mg),

wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 35  $\mu\text{m}$ , and the oxide film layer has an average thickness of 1  $\mu\text{m}$  or less, excluding 0  $\mu\text{m}$ ."

X. **Claim 4** of auxiliary requests 43, 44, 48, 52 and **claim 1** of auxiliary requests 56, 60, 64 are identical to claim 4 of the main request.

XI. **Claim 4** of auxiliary requests 45, 49 and 53 and **claim 1** of auxiliary requests 57, 61, 65 correspond to claim 4 of the main request wherein the following amendment (emphasized by the board) has been introduced in the final feature of the claim:

"...wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 35  $\mu\text{m}$ , and the oxide film layer has an average thickness of ~~1  $\mu\text{m}$~~  0.37  $\mu\text{m}$  or less, excluding 0  $\mu\text{m}$ ."

XII. **Claim 4** of auxiliary requests 46, 50, 54 and **claim 1** of auxiliary requests 58, 62, 66 correspond to claim 4 of the main request wherein following features have been added at the end of the claim:

"..., wherein the aluminum-magnesium alloy plating layer further comprises 10 wt% or less (excluding 0 wt%) of silicon (Si), and the aluminum-magnesium alloy plating layer is provided as an aluminum-silicon-magnesium alloy plating layer, and

wherein the oxide layer includes a portion of aluminum (Al), magnesium (Mg) and silicon (Si) that are diffused toward a surface of the plating layer and included inside the oxide layer."

XIII. **Claim 4** of auxiliary requests 47, 51, 55 and **claim 1** of auxiliary requests 59, 63, 67 correspond to claim 4 of auxiliary request 45 wherein following features have been added at the end of the claim:

"..., wherein the aluminum-magnesium alloy plating layer further comprises 10 wt% or less (excluding 0 wt%) of silicon (Si), and the aluminum-magnesium alloy plating layer is provided as an aluminum-silicon-magnesium alloy plating layer, and

wherein the oxide layer includes a portion of aluminum (Al), magnesium (Mg) and silicon (Si) that are diffused toward a surface of the plating layer and included inside the oxide layer."

XIV. **Claim 1** of auxiliary requests 68 reads as follows:



"A method of manufacturing a hot press forming member, comprising:

preparing a base steel sheet,

wherein the base steel sheet includes 0.1 wt% to 0.4 wt% of carbon (C), 0.05 wt% to 1.5 wt% of silicon (Si), 0.5 wt% to 3.0 wt% of manganese (Mn), and iron (Fe) as a residual component thereof, wherein the base steel sheet optionally further includes one or more selected from a group consisting of 0.001 wt% to 0.02 wt% of nitrogen (N), 0.0001 wt% to 0.01 wt% of boron (B), 0.001 wt% to 0.1 wt% of titanium (Ti), 0.001 wt% to 0.1 wt% of niobium (Nb), 0.001 wt% to 0.01 wt% of vanadium (V), 0.001 wt% to 1.0 wt% of chromium (Cr), 0.001 wt% to 1.0 wt% of molybdenum (Mo), 0.001 wt% to 0.1 wt% of antimony (Sb), and 0.001 wt% to 0.3 wt% of tungsten (W),

forming an alloy plating layer by dipping for 2 to 5 seconds the base steel sheet in an aluminum-magnesium alloy plating bath at 650°C to 750°C,

wherein the aluminum-magnesium alloy plating bath includes 0.5 wt% to 10 wt% of magnesium (Mg), 0.0005 wt% to 0.05 wt% of an element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg), and aluminum (Al) as balance, and inevitable impurities, wherein the element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg) is one or more selected from a group consisting of beryllium (Be), calcium (Ca), lithium (Li), and sodium (Na),

wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 30  $\mu\text{m}$ ;

heating the steel sheet for hot press forming;

hot press forming the steel sheet for hot press forming; and  
cooling the steel sheet for hot press forming;  
wherein the formed hot press forming member comprises:  
the base steel sheet;  
the aluminum-magnesium alloy plating layer formed on at least one surface of the base steel sheet;  
and an oxide film layer formed in an upper part of the aluminum-magnesium alloy plating layer;  
wherein the oxide film layer includes an element having a higher degree of oxidation than a degree of oxidation of magnesium (Mg) included in the aluminum-magnesium alloy plating layer, wherein the element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg) is one or more selected from a group consisting of beryllium (Be), calcium (Ca), lithium (Li) and sodium (Na), wherein the aluminum-magnesium alloy plating layer includes 0.5 wt% to 10 wt% of magnesium (Mg), and 0.0005 wt% to 0.05 wt% of the element having a higher degree of oxidation than the magnesium (Mg), wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 35  $\mu\text{m}$ , and the oxide film layer has an average thickness of 1  $\mu\text{m}$  or less, excluding 0  $\mu\text{m}$ ."

XV. **Claim 1** of auxiliary request 69, corresponds to claim 1 of auxiliary request 68 wherein the following amendment (emphasized by the board) has been introduced in the final feature of the claim:

"...wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 35  $\mu\text{m}$ , and the oxide film layer has an average thickness of ~~1  $\mu\text{m}$~~  **0.37  $\mu\text{m}$**  or less, excluding 0  $\mu\text{m}$ ."

XVI. **Claim 1** of auxiliary request 70 reads as follows:

"A method of manufacturing a hot press forming member, comprising:

preparing a base steel sheet,

wherein the base steel sheet includes 0.1 wt% to 0.4 wt% of carbon (C), 0.05 wt% to 1.5 wt% of silicon (Si), 0.5 wt% to 3.0 wt% of manganese (Mn), and iron (Fe) as a residual component thereof, wherein the base steel sheet optionally further includes one or more selected from a group consisting of 0.001 wt% to 0.02 wt% of nitrogen (N), 0.0001 wt% to 0.01 wt% of boron (B), 0.001 wt% to 0.1 wt% of titanium (Ti), 0.001 wt% to 0.1 wt% of niobium (Nb), 0.001 wt% to 0.01 wt% of vanadium (V), 0.001 wt% to 1.0 wt% of chromium (Cr), 0.001 wt% to 1.0 wt% of molybdenum (Mo), 0.001 wt% to 0.1 wt% of antimony (Sb), and 0.001 wt% to 0.3 wt% of tungsten (W),

forming an alloy plating layer by dipping for 2 to 5 seconds the base steel sheet in an aluminum-magnesium alloy plating bath at 650°C to 750°C,

wherein the aluminum-magnesium alloy plating bath includes 0.5 wt% to 10 wt% of magnesium (Mg), 0.0005 wt% to 0.05 wt% of an element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg), and aluminum (Al) as balance, and inevitable impurities, wherein the element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg) is one or more selected from a group consisting of beryllium (Be), calcium (Ca), lithium (Li), and sodium (Na),

**wherein the aluminum-magnesium alloy plating bath further comprises 10 wt% or less of silicon (Si),**

wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 30  $\mu\text{m}$ ;  
heating the steel sheet for hot press forming;  
hot press forming the steel sheet for hot press forming; and  
cooling the steel sheet for hot press forming;  
wherein the formed hot press forming member comprises:  
the base steel sheet;  
the aluminum-magnesium alloy plating layer formed on at least one surface of the base steel sheet;  
and an oxide film layer formed in an upper part of the aluminum-magnesium alloy plating layer;  
wherein the oxide film layer includes an element having a higher degree of oxidation than a degree of oxidation of magnesium (Mg) included in the aluminum-magnesium alloy plating layer, wherein the element having a higher degree of oxidation than a degree of oxidation of the magnesium (Mg) is one or more selected from a group consisting of beryllium (Be), calcium (Ca), lithium (Li) and sodium (Na), wherein the aluminum-magnesium alloy plating layer includes 0.5 wt% to 10 wt% of magnesium (Mg), and 0.0005 wt% to 0.05 wt% of the element having a higher degree of oxidation than the magnesium (Mg), wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 35  $\mu\text{m}$ , and the oxide film layer has an average thickness of 1  $\mu\text{m}$  or less, excluding 0  $\mu\text{m}$ , wherein the aluminum-magnesium alloy plating layer further comprises 10 wt% or less (excluding 0 wt%) of silicon (Si), and the aluminum-magnesium alloy plating layer is provided as an aluminum-silicon-magnesium alloy plating layer, and  
wherein the oxide layer includes a portion of aluminum (Al), magnesium (Mg) and silicon (Si) that

are diffused toward a surface of the plating layer and included inside the oxide layer."

XVII. **Claim 1** of auxiliary request 71, corresponds to claim 1 of auxiliary request 70 wherein the following amendment (emphasized by the board) has been introduced in the final features of the claim::

"...,wherein the aluminum-magnesium alloy plating layer has an average thickness of 5  $\mu\text{m}$  to 35  $\mu\text{m}$ , and the oxide film layer has an average thickness of ~~1  $\mu\text{m}$~~  **0.37  $\mu\text{m}$**  or less, excluding 0  $\mu\text{m}$ , wherein the aluminum-magnesium alloy plating layer further comprises 10 wt% or less (excluding 0 wt%) of silicon (Si), and the aluminum-magnesium alloy plating layer is provided as an aluminum-silicon-magnesium alloy plating layer, and wherein the oxide layer includes a portion of aluminum (Al), magnesium (Mg) and silicon (Si) that are diffused toward a surface of the plating layer and included inside the oxide layer."

XVIII. **Claim 1** of auxiliary requests 72, 73, 74 and 75 correspond to claim 1 of auxiliary requests 68, 69, 70 and 71 respectively, whereby the feature

"wherein the heating is performed at a temperature rising rate of 3  $^{\circ}\text{C}/\text{s}$  to 200  $^{\circ}\text{C}/\text{s}$  until a heating temperature of  $\text{Ac}3$  to 1000 $^{\circ}\text{C}$ , the heating temperature is maintained for 240 seconds or less, and the cooling is performed at a cooling rate of 20 $^{\circ}\text{C}/\text{s}$  or more until 100 $^{\circ}\text{C}$  or less;"

has been introduced immediately after the feature "cooling the steel sheet for hot press forming" and immediately before the feature "wherein the formed hot press forming member comprises"

XIX. **Claim 1** of auxiliary requests 76, 77, 78 and 79 correspond to claim 1 of auxiliary requests 72, 73, 74 and 75 respectively, whereby the feature

"the forming is completed within 10 seconds,"

has been introduced immediately after the feature "the heating temperature is maintained for 240 seconds or less" and immediately before the feature "and the cooling is performed at a cooling rate of 20°C/s or more until 100°C or less".

XX. The wording of the claims of auxiliary requests 42a and 72a is not relevant for the present decision.

### **Reasons for the Decision**

1. *Admittance of documents D28 and D29 into the proceedings, Article 13(2) RPBA*

1.1 The appellant submitted documents D28 and D29 with letter dated 9 April 2024, *i.e.* after notification of the board's communication under Article 15(1) RPBA.

1.2 The respondent argued that the submission of documents D28 and D29 was an amendment to the appellant's case and requested that these documents not be admitted into the appeal proceedings under Article 13(2) RPBA. According to the respondent, these documents could have been filed before, and they did not depict the common general knowledge of the skilled person.

1.3 The board disagrees. Contrary to the respondent's view, the board is convinced that these documents depict the common general knowledge on the present technical field

of aluminised coating on a steel sheet for a hot press forming member (see title and abstract of D28 and D29). Furthermore, the board notes that no fresh objection has been formed based on these documents, and that they rather constitute a mere development of the case already presented during the opposition proceedings. In addition, in this particular case, the submission of documents D28 and D29 was also triggered by the preliminary view of the board including the argument raised for the first time in the proceedings in point 9.3.3 of the communication under Article 15(1) RPBA, namely that the diffusion taking place at the interface between the base steel sheet and the alloy plating layer when the oxide film layer is formed was merely a local phenomenon that resulted in negligible variations in the core compositions of the different parts of the final member.

- 1.4 In view of this, the board sees that in the case at hand there are cogent reasons that justify exceptional circumstances to take into account the proof of common general knowledge depicted by documents D28 and D29 into the proceedings.
  
2. *Main request, independent claim 4 - Added subject-matter, Article 123(2) EPC*
  - 2.1 The opposition division found that the term "hot press forming member" according to claim 4 *"has to be interpreted as defining the plated steel sheet before it has been subjected to hot press forming"* (see reasons for the decision, point 10.3.1).
  
  - 2.2 The board does not share this interpretation made by the opposition division for the following reasons. It is first to be noted that, as correctly found by the

opposition division, original claim 8 does not clearly indicate whether the hot press forming member as claimed has already been hot press formed or not. Under these circumstances, the board is of the view that the claim should be interpreted in the light of the description. In this sense, paragraph [0045] of the patent in suit makes clear that a "hot press forming member" may be obtained by hot pressing a steel sheet for hot press forming. The board is thus convinced that, contrary to the opposition division's conclusion, the term "hot press forming member" is to be interpreted as a plated steel sheet that has been subjected to hot press forming. This interpretation has never been contested by the respondent.

2.2.1 The appellant argued that, in the event that the hot press forming member was to be interpreted as a plated steel sheet that has been subjected to hot press forming, then claim 4 of the main request contravened the requirements of Article 123(2) EPC. Indeed, amended claim 4 resulted *inter alia* in the introduction of the features contained in original paragraphs [0022] and [0027], namely that the aluminum magnesium alloy plating layer included

- 0.5 wt% to 10% wt of Mg, and
- 0.0005 wt% to 0.05 wt% of the element having a higher degree of oxidation.

These features however did not originally refer to the hot press forming member according to claim 4, but rather to an alloy plating layer applied on a steel sheet for hot press forming, *i.e.* a steel sheet that has not been subjected to hot press forming.



The appellant noted that during hot forming, the Fe of the steel sheet would diffuse strongly into the plating layer and the elements in the plating layer would diffuse into the base steel sheet, so that the concentrations of Mg, Be, Ca, Li or Na would inevitably vary in the aluminum-magnesium alloy plating layer with respect to the initial steel sheet for hot press forming.

It follows that original paragraphs [0022] and [0027] could not serve as a basis for the composition of the plating layer of the hot press forming member, so that claim 4 extends beyond the original disclosure.

2.2.2 The respondent contested the appellant's allegation substantially following the board's preliminary opinion expressed in point 9.3.3 of the communication under Article 15(1) RPBA. According to this preliminary opinion, the alleged diffusion taking place during hot press forming was merely a local phenomenon that could not amount to sensitive variations in the core compositions of the different parts of the hot press forming member, so that the initial compositions could serve as basis for the contested features.

2.2.3 The board, after having reconsidered all aspects of the case, cannot maintain its preliminary opinion and rather concurs with the appellant that the requirements of Article 123(2) EPC are not met.

As correctly argued by the appellant, the hot press forming process involves inevitable and drastic modifications on the composition of the plating layer throughout its thickness. This is shown by documents already filed during the statement setting out the grounds of appeal and discussed by the parties during

the oral proceedings before the board, such as at least D19 (figure 6), D20 (passages relating to figures 6 and 7 in pages 1716 and 1717 respectively) and D23 (abstract), and further developed by the documents taken into consideration in appeal proceedings D28 (figures 3 and 6) and D29 (figure 2, in particular figure 2b after 2 minutes at 930°C). The board concurs with the appellant that the common general knowledge depicted by these documents, which deal with similar plating layer compositions and thicknesses, as well as similar hot forming temperatures, can be applicable for the hot press forming member of the patent in suit.

2.2.4 The board is thus convinced that the composition of the plating layer prior to hot press forming cannot serve as a valid basis for the composition of such steel sheet including a plating layer of the produced hot press forming member.

2.2.5 In sum, claim 4 of the main request does not meet the requirements of Article 123(2) EPC.

3. *Auxiliary requests 43 to 79 - Added subject-matter, Article 123(2) EPC*

3.1 Claim 4 of auxiliary requests 43 to 55 and claim 1 of auxiliary requests 56 to 79 are directed to hot press forming members or to methods for manufacturing a hot press forming member whereby the hot press forming member comprises aluminum-magnesium alloy plating layer including

- 0.5 wt% to 10% wt of Mg, and
- 0.0005 wt% to 0.05 wt% of the element having a higher degree of oxidation.

- 3.2 The respondent conceded that the conclusion on Article 123(2) EPC for the main request applied to all these auxiliary requests. The board thus concludes that, for the same reasons as for claim 4 of the main request, auxiliary requests 43 to 79 do not meet the requirements of Article 123(2) EPC.
4. *Auxiliary requests 42a and 72a - Admittance, Articles 13(1) and 13(2) RPBA*
- 4.1 The respondent submitted during the oral proceedings before the board auxiliary requests 42a and 72a.
- 4.2 Auxiliary request 42a was filed after the board communicated its intermediary conclusion that claim 1 of the main request did not meet the requirements of inventive step. Auxiliary request 42a corresponded to the main request whereby claims 1 to 3 had been deleted.
- 4.2.1 The respondent, making reference to T 1800/21, argued that, even if the submission of auxiliary request 42a was to be considered as an amendment to its case, the deletion of an entire category of claims would be admissible under Article 13(2) RPBA. In particular, such an amendment does not shift the factual and legal framework of the proceedings and does not run counter to the principle of procedural economy.
- 4.2.2 The question of whether the deletion of a category of claims is an amendment has been answered differently by the boards (see Case Law of the Boards of Appeal of the European Patent Office, 10th edition 2022, V.A.4.2.2 d) (i) and (ii)). In this board's opinion, the filing of a new set of claims is to be regarded as an amendment to the appeal case, even if only a category of claims is

deleted, and its admittance is therefore subject to the board's discretion (see for instance T 494/18, Reasons 1.3.2 and 1.4; T 2295/19, Reasons 3.4.4 and 3.4.5; T 1569/17, Reasons 4.3.1; T 2229/19, Reasons 25 and 26).

In the exercise of its discretion, the board may also consider the criteria applicable at the second level of convergence defined by Article 13(1) RPBA, such as the procedural economy.

- 4.2.3 The board does not share the respondent's view on the admittance of auxiliary request 42a into the proceedings.

The board notes in the first place that the relevant objection on inventive step against claim 1 of the main request was already present in the opposition proceedings (see point II.19 of the decision under appeal). Consequently, the respondent would have been in the position to submit such request at least with its reply to the statement setting out the grounds of appeal. Already for this reasons the board does not see any exceptional circumstances that would justify the filing of this new set of claims at this late stage of the proceedings (Article 13(2) RPBA).

In the second place, the deletion of all claims directed to a steel sheet for hot press forming *de facto* implied that a discussion had to be conducted on the other remaining independent claims 4 and 7 of the main request (claims 1 and 4 of auxiliary request 42a).

This course of action at this stage of the oral proceedings, *i.e.* after the board having found the subject-matter of claim 1 of the main request lacking

inventive step (see minutes of the oral proceedings before the board, page 2, last four paragraphs), amounted to the respondent forcing the board to discuss the remaining independent claims of the main request although this had so far appeared unnecessary at this stage of the proceedings and was contrary to the requirement of convergence and procedural economy (Article 13(1) RPBA). As a matter of fact, the following auxiliary requests 43 to 55 still comprised a claim directed to a steel sheet for hot press forming, against which said valid inventive step objection against claim 1 of the main request could be further discussed with the parties.

In fact, a request without claims directed to a steel sheet for hot press forming but with *inter alia* said remaining unamended independent claim 7 of the main request had never been filed by the respondent in appeal proceedings. This amounts to impose a shift of the discussion toward said independent claim 7 of the main request which is, however, included in none of the following auxiliary requests as it is amended into a method of manufacturing a **hot press forming member** with additional features.

The filing of auxiliary request 42a at this stage of the proceedings is therefore seen by the board as a procedural salami tactic for determining which of the remaining independent claims of the main request could be kept unchanged with the purpose to establish an allowable set of claims. This procedural course of action of a proprietor cannot be allowed as it would be contrary to the procedural economy as a whole to allow a proprietor to obtain a decision of the board on each of its independent claims of the main request (Article 13(1) RPBA, cf. T 156/15, Reasons 1.3.5 and 1.3.6).

As a result of the above, T 1800/21 does not apply in the present case.

4.2.4 Finally, and for the sake of completeness only, the board notes that even if auxiliary request 42a had been admitted into the proceedings, it would still not have met the requirements of Article 123(2) EPC for the same reasons as those given for the main request.

4.3 Auxiliary request 72a was filed as a reaction to the admittance of documents D28 and D29 and to the shift of the board's preliminary opinion that the requirements of Article 123(2) EPC were met. In auxiliary request 72a the features relating to the composition of the aluminum-magnesium alloy plating layer of the hot press forming member have been cancelled. This amendment logically overcame the objection under Article 123(2) EPC, which according to the respondent amounted to exceptional circumstances that could justify that auxiliary request 72a be taken into account under Article 13(2) RPBA.

4.3.1 The board disagrees for the following reasons. Similarly as for auxiliary request 42a, the board notes that the relevant objection on added subject-matter was already present in the opposition proceedings, which means that the respondent was in the position to submit such request at least with its reply to the statement setting out the grounds of appeal, in an attempt to overcome this objection. In general terms, a patent proprietor should consider the possibility that the board could follow one particular raised objection against the maintenance of the patent and react promptly by filing, when appropriate, a corresponding auxiliary request. A shift of the preliminary opinion

of the board cannot constitute, at least in the present case, exceptional circumstances that could justify the admittance of auxiliary request 72a.

Furthermore, as put forward under point 2.2.3 above the admitted late-filed documents D28 and D29 were not responsible on their own for the conclusions drawn by the board on the non-fulfilment of the requirements of Article 123(2) EPC. As also discussed during the oral proceedings before the board other documents such as D19, D20 and D23 were also taken into consideration for showing the same effect of a change in the plating layer composition during hot press forming. The admission of documents D28 and D29 can therefore not be seen as a trigger which would justify the filing of further auxiliary requests. They only illustrate and support, additionally to the other cited documents, the appellant's argument of said effect of hot press forming on the plating layer composition which was put forward throughout the opposition proceedings (see for instance the notice of opposition, point 1.2.1 on page 4).

In view of the above reasons auxiliary request 72a is not taken into account into the appeal proceedings (Article 13(2) RPBA).

- 4.3.2 In addition, the board concurs with the appellant that it is not demonstrated that the amendment carried out does not *prima facie* give rise to new objections, such as, for example, an unallowable extension beyond the scope of protection under Article 123(3) EPC. As a matter of fact, as put forward by the appellant during the oral proceedings, claim 1 of auxiliary request 72a concerns a method of manufacturing a hot press forming member conferring protection to the products directly

obtained by the method, *i.e.* a hot press forming member (Article 64(2) EPC). Such a hot press forming member directly obtained by the method of claim 1 of auxiliary request 72a has, however, no clear and defined composition of its plating layer, which has not been claimed and protected by the patent as granted (see claim 4). Such an objection would have to be examined for the first time during the oral proceedings before the board, which is clearly detrimental to procedural economy. The board, taking the criteria of Article 13(1) RPBA into consideration, does not admit auxiliary request 72a into the appeal proceedings also for this reason.

5. *Conclusions*

5.1 It follows from the above that the appellant has convincingly demonstrated the incorrectness of the decision under appeal that the patent as maintained by the opposition division in accordance with auxiliary request 42 met the requirements of the EPC, including those of Article 123(2) EPC. The decision under appeal is thus to be set aside.

5.2 Furthermore, in the absence of any admissible and allowable request, the patent is to be revoked.



## 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:



S. Lichtenvort

G. Patton

Decision electronically authenticated