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**Datasheet for the decision
of 11 September 2008**

Case Number: T 1418/06 - 3.2.02

Application Number: 95911687.2

Publication Number: 0708844

IPC: C22C 21/02

Language of the proceedings: EN

Title of invention:

Corrosion resistant aluminum alloy rolled sheet

Patentee:

Alcoa Inc.

Opponents:

ALCAN INTERNATIONAL LIMITED
Aleris Aluminum Duffel BVBA

Headword:

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Relevant legal provisions:

EPC Art. 54, 123(2), 100(a), (c)

Relevant legal provisions (EPC 1973):

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Keyword:

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Decisions cited:

T 0201/83

Catchword:

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Case Number: T 1418/06 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 11 September 2008

Appellant: Alcoa Inc.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 11 July 2006
revoking European patent No. 0708844 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: T. Kriner
Members: R. Ries
C. Vallet

Summary of Facts and Submissions

- I. Oppositions were filed against European patent No. 0 708 844 as a whole by opponents OI and OII and were based on Articles 100(a) and 100(c) EPC.

The opposition division held that the subject matter of claim 1 of the main request then on file lacked novelty. The first and second auxiliary requests were not admissible under Rule 57a EPC, and the subject matter of claim 1 of the third auxiliary request did not involve an inventive step. In addition, the opposition division pointed out that claim 8 of the first auxiliary request was not clear (Article 84 EPC), and claim 7 of the second auxiliary request contained an unallowable generalisation, contrary to the provisions of Article 123(2) EPC. The decision to revoke the patent was dispatched on 11 July 2006.

- II. The appellant (patent proprietor) lodged an appeal against the decision. The appeal was received at the European Patent Office on 11 September 2006 and the appeal fee was paid on the same date. The statement setting out the grounds of appeal was received on 21 November 2006 and included in the annex amended sets of claims according to the main request (claims 1 to 17) and a first auxiliary request (claims 1 to 7).

- III. In the annex to the summons to oral proceedings requested by all parties and scheduled for the 9 September 2008, the Board expressed serious doubts that the claims of the main request and the auxiliary request satisfied the requirements of Articles 123(2) and 84 EPC. Particular reference was made in the

communication to the considerations given in decision T201/83 according to which the generalisation of a value given in an example to function as a limit for a range could constitute an inadmissible extension of the subject matter of the application.

IV. In its letter dated 6 August 2008 the appellant informed the Board that it will not attend the oral proceedings, and in the letter dated 27 August 2008, the appellant withdrew its request for oral proceedings. No comments or arguments in response to the Board's communication were submitted. Under consideration of this situation, the oral proceedings were cancelled.

V. The following requests were made in the written proceedings:

The appellant requested that

- the decision under appeal be set aside and
- the patent be maintained on the basis of claims 1 to 17 according to the main request or, alternatively, claims 1 to 7 according to the first auxiliary request, both requests filed with the statement of grounds of appeal.

The respondents requested that the appeal be dismissed.

VI. Independent claims 1 and 9 of the main request read as follows:

"1. A process for forming an aluminum alloy rolled sheet particularly suitable for use for an automotive body, said process comprising:

- (a) providing a body of an alloy comprising 0.8 to 1.5 wt.% silicon, 0.56 to 0.65 wt.% magnesium, 0.01 to below 0.1 wt.% copper, 0.01 to 0.1 wt.% manganese, 0.05 to 0.2 wt.% iron, and the balance being aluminum and incidental elements and impurities;
- (b) working said body to produce said;
- (c) solution heat treating said sheet;
- (d) rapidly quenching said sheet; and
- (e) naturally aging said sheet prior to forming into an automotive body member."

"9. An aluminum alloy suitable for use for an automotive body having a minimum transverse tensile yield strength of at least 206.9 MPa (30 ksi) after stretching in plain strain by 2% and ageing for 30 minutes at 177°C, said alloy comprising 0.8 to 1.5 wt.% silicon, 0.56 to 0.65 wt.% magnesium, 0.01 to below 0.1 wt.% copper, 0.01 to 0.1 wt.% manganese, 0.05 to 0.2 wt.% iron, and the balance being aluminum and incidental elements and impurities."

Claim 1 of the first auxiliary request differs from claim 1 of the main request by the wording of feature (b) (in bold letters):

- "1. A process for forming an aluminum alloy rolled sheet particularly suitable for use for an automotive body, said process comprising:
- (a) providing a body... and impurities;
 - (b) working said body to produce said **sheet including the steps of hot rolling, intermediate annealing at a holding temperature of 427°C for 2 hours, and cold rolling;...**
 - (e) ...body member."

VII. The respondents' arguments are summarized as follows:

The isolated adoption of 0.56 wt% Mg given in Table 1, example 2 of the application into claim 1 of the main and auxiliary requests as a new lower limit for the magnesium range represented an arbitrary selection the skilled person could not have recognized as implicitly or explicitly disclosed in the application as filed.

As to claim 9 of the main request, the transverse tensile yield strength of at least 206.9 MPa was introduced independent of the other treatments example 35 underwent before the paint baking step, such as the homogenisation step, various temperature treatments, working steps and the solution heat treatment which were all specified in paragraphs [0043] and [0044] of the patent specification.

Objection therefore arose under Article 123(2) EPC for the claims of the main and auxiliary requests.

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments, Article 123(2) EPC, main request*
 - 2.1 According to Article 123(2) EPC a European patent application or a European patent may not be amended in such a way that it contains subject matter which extends beyond the content of the application as originally filed.

2.2 Claims 1 and 9 of the main request relate to a process for forming an Al alloy which, amongst other elements, comprises magnesium ranging from 0.56 to 0.65 wt%. Although the lower value of 0.56 wt% Mg features in the patent specification (see Table 1, example 2), the Board cannot find any disclosure of this limitation of the magnesium range in the application as originally filed (W095/31580). Rather more, the magnesium content of the alloy in its broadest aspect as set out in claim 1 and the description of the application as originally filed is specified to be within a range of 0.2 to 0.65 wt%. Claim 2 as originally filed defines a more preferred embodiment of the Al-alloy which includes 0.3 to 0.6 wt% Mg, however in combination with the other narrowly restricted ranges for Si, Cu, Mn and Fe. Having regard to the considerations given in decision T201/83, the generalisation of a value given in a specific example to function as the limit for a range would be allowable only if this value is not so closely associated with the other features of the example as to determine the properties of this embodiment as a whole in a unique manner and to a significant degree. In example 2 of Table 1, however, the Mg content is closely associated with the specific amounts of the other components Si, Cu, Fe and Mn. All these essential elements have a role that is performed synergistically and bring about by their balancing and interaction a particular combination of properties, in particular formability, strength and corrosion resistance (see for instance W095/31580, page 8, lines 10 to 14). In the claimed Al-Si-Mg alloy, Mg is said to enhance the strength, but it is also added in amounts needed for forming the intermetallic compound Mg_2Si under the co-

presence of Si (see W095/31580, page 8, line 15 to page 9, line 3). It cannot be disputed that Mg interacts with Si and is precipitated during the paint baking treatment from the solid solution in the form of Mg_2Si to provide the alloy with sufficient strength (generally called the paint bake-hardening). It is therefore beyond doubt that in example 2 of Table 1 the amounts of Si and Mg are closely associated with each other as to determine the mechanical and corrosion properties of this embodiment of the application to a significant degree. In consequence of these considerations the isolated adoption of 0.56 wt% Mg in example 2 as a new lower limit for the magnesium range constitutes an inadmissible extension of the subject matter of the application which contravenes the requirements of Article 123(2) EPC.

Turning to independent claim 9, the minimum transverse tensile yield strength of at least 206.9 MPa after stretching in plane strain by 2% and aging for 30 minutes at 177°C achieved by example 35 has been generalised for the whole compositional range of the Al-Si-Mg alloy. It is however evident from Table 4 that this value is obtained only by an alloy which is based on example 2 of Table 1 and has been produced with the process parameters given in paragraphs [0043] and [0044] of the patent specification (see also W095/31580, page 13, last paragraph and page 14). Claim 9 of the main request however fails to define these process parameters and hence extends beyond the disclosure of the application as filed.

3. *Amendments, Article 123(2) EPC, first auxiliary request*

The objection relating to the lower limit for the Mg-range is also true for claim 1 of the first auxiliary request. In addition thereto, the intermediate annealing temperature of 427°C/2h featuring in this claim is disclosed for the exemplifying alloys 1 to 9 in combination with other specific process parameters including inter alia a homogenisation step between 546 to 552°C for at least 4h, hot and cold rolling, solution heat treating at 546° and cold water quenching. The specific alloy compositions in combination with all the process parameters determine the properties of the examples 1 to 11 given in the Tables 1 to 7. The latter process parameters do however not feature in claim 1 of the auxiliary request. Hence also claim 1 of the first auxiliary request includes an inadmissible generalisation of the subject matter of the application and hence likewise fails to meet the requirements of Article 123(2) EPC.

4. The above objections were addressed in the written submissions of the respondents in response to the statement of grounds of appeal and also in the Board's communication annexed to the invitation to oral proceedings. However, no comments in response have been submitted by the patentee.

In consequence thereof and in the absence of any counterarguments by the patentee, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

V. Commare

T. Kriner