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D E C I S I O N
of 13 May 2005

Case Number: T 0723/02 - 3.3.5

Application Number: 96100574.1

Publication Number: 0722913

IPC: C03C 17/36

Language of the proceedings: EN

Title of invention:
Dual silver layer low-e glass coating system and insulating glass units made therefrom

Patentee:
GUARDIAN INDUSTRIES CORP.

Opponent:
SAINT-GOBAIN GLASS FRANCE

Headword:
Low emissivity glass/GUARDIAN

Relevant legal provisions:
EPC Art. 123
EPC R. 88

Keyword:
"Non-obviousness of corrections"
"New situation justifying remittal to the first instance"

Decisions cited:
G 11/91, G 2/95

Catchword:
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Case Number: T 0723/02 - 3.3.5

D E C I S I O N
of the Technical Board of Appeal 3.3.5
of 13 May 2005

Appellant: (Opponent)
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Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 14 May 2002 concerning maintenance of European patent No. 0722913 in amended form.

Composition of the Board:

Chairman: M. M. Eberhard
Members: J. D. Schwaller
S. U. Hoffmann

Summary of Facts and Submissions

I. The appeal lies from the interlocutory decision of the opposition division posted on 14 May 2002, whereby European patent No. 0 722 913 was maintained in amended form. The patent had been opposed on the grounds of Articles 100(a), (b) and (c) EPC, whereby under Article 100(a), lack of novelty and lack of inventive step were raised.

II. In its decision, the opposition division found the main request filed during the oral proceedings on 12 March 2002 fulfilled the requirements of the EPC.

Claim 1 of this request read as follows:
"A sputter-coated glass article comprised of a glass substrate having thereon from the glass outwardly, a layer system including:
a) a layer of Si_3N_4 having a thickness of 300 Å - 550 Å;
b) a layer of nickel or nichrome having a thickness of 7 Å or less;
c) a layer of silver having a thickness of 70 Å - 130 Å;
d) a layer of nickel or nichrome having a thickness of 7 Å or less; and
e) a layer of Si_3N_4 having a thickness of 700 Å - 1,1OO Å;
f) a layer of nickel or nichrome having a thickness of 7 Å or less;
g) a layer of silver having a thickness of 70 Å - 190 Å;
h) a layer of nickel or nichrome having a thickness of 7 Å or less; and

i) a layer of Si_3N_4 having a thickness of 350 Å - 700 Å."

The two tables on amended page 13 of the patent in suit as maintained by the opposition division read as follows:

Material	Layer No.	Thickness (approx.)
Si_3N_4	2a	~~450 Å~~ **400 Å**
Ni:Cr	3a	7 Å
Ag	4a	~~155 Å~~ **110 Å**
Ni:Cr	3b	7 Å
Si_3N_4	2b	950 Å
Ni:Cr	3c	7 Å
Ag	4b	~~110 Å~~ **155 Å**
Ni:Cr	3d	7 Å
Si_3N_4	2c	~~400 Å~~ **450 Å**

Table 3

LAYER	MATERIAL	*N_2 %	Ar %	PRESSURE Pa (Torr)	CATHODE POWER	CATHODE VOLTAGE	CATHODE AMPS	%LINE SPEED	No. OF PASSES
1	Silicon	50	50	0.0533 (4.0×10^{-4})	4.9 KW	483 V	10.5 A	42.5	8
2	Nichrome	50	50	0.0413 (3.1×10^{-4})	0.7 KW	387 V	2 A	100	1
3	Silver	0	100	0.0760 (5.7×10^{-4})	2.8 KW	454 V	6.4 A	100	1
4	Nichrome	50	50	0.0413 (3.1×10^{-4})	0.3 KW	344 V	1 A	100	1
1	Silicon	50	50	0.0533 (4.0×10^{-4})	4.9 KW	483 V	10.5 A	42.5	19
2	Nichrome	50	50	0.0413 (3.1×10^{-4})	0.7 KW	387 V	2 A	100	1
3	Silver	0	100	0.0760 (5.7×10^{-4})	5.0 KW	498 V	10.5 A	100	1
4	Nichrome	50	50	0.0413 (3.1×10^{-4})	0.3 KW	344 V	1 A	100	1
1	Silicon	50	50	0.0533 (4.0×10^{-4})	4.9 KW	483 V	10.5 A	42.5	~~8~~ **9**

* Optionally, the nichrome layers may be sputter-coated in a 100 % Ar atmosphere, thereby preventing a nitride of the chrome from being formed. Additionally, the silver layers may be sputter-coated in a partially containing N_2 atmosphere because silver does not form a nitride.

The crossed off values were replaced by values in bold characters (*bold added by the board*). In Table 3 only the value "9" was substituted for the value "8" in the last line of the column headed "No. of passes".

According to the decision, the corrections to the table at the top of page 13 of the patent specification (this table is called "unnumbered table" hereinafter) were accepted under Rule 88 EPC on the basis of page 4 (sic), lines 5-38 and of dependent claim 7.

The opposition division also recognized the novelty and inventive step of the subject-matter claimed and considered that there was sufficient information in the patent specification to enable the skilled person to reproduce the invention.

III. The appellant (opponent) lodged an appeal against this interlocutory decision and submitted that the subject-matter claimed lacked novelty and inventive step. He further disputed that the corrections made by the proprietor to the two tables on page 13 of the patent in suit were obvious in the meaning of Rule 88 EPC. Therefore the amendments to the patent in suit contravened Article 123(2) EPC. The appellant further maintained his objection of insufficiency of disclosure.

IV. With its reply to the grounds of appeal, the respondent (proprietor) filed amended claims as a first auxiliary request and several documents. Following a communication of the board, he filed five new requests, replacing the previous ones.

V. During the oral proceedings, which took place on 13 May 2005 in the presence of both parties, the respondent filed six new sets of amended documents as a main request and 5 auxiliary requests in replacement of all those filed during the written proceedings.

Claim 1 of the main request is identical to claim 1 of the interlocutory decision (see point II above). Amendments were made in the dependent claims. The description is also identical to the amended version of the interlocutory decision except for the deletion of the term "optical" in line 49 at page 8.

Claim 1 of the 1st auxiliary request differs from claim 1 of the main request by the insertion of the feature "said layer e) being substantially thicker than either of the two layers a) and i)" at the end of the claim. The description is identical to that of the interlocutory decision.

Claim 1 of each of the 2nd to 5th auxiliary requests is identical to claim 1 of the 1st auxiliary request. The following amendments to the description were made in these requests:

- In the 2nd auxiliary request, the middle column in the unnumbered table at page 13 was deleted and the thicknesses remained as indicated in the granted patent:

Material	~~Layer No.~~	Thickness (approx.)
Si_3N_4	~~2a~~	450 Å
Ni:Cr	~~3a~~	7 Å
Ag	~~4a~~	155 Å
Ni:Cr	~~3b~~	7 Å
Si_3N_4	~~2b~~	950 Å
Ni:Cr	~~3c~~	7 Å
Ag	~~4b~~	110 Å
Ni:Cr	~~3d~~	7 Å
Si_3N_4	~~2c~~	400 Å

whereby Table 3 was maintained as amended in the interlocutory decision (see point II above).

- In the 3rd auxiliary request, the unnumbered table at page 13 was amended as in the 2nd auxiliary request and Table 3 remained unchanged as in the patent in suit.

- In the 4th auxiliary request, the unnumbered table at page 13 was amended as in the 2nd and 3rd auxiliary requests and the whole Table 3 as well as the references thereto were deleted from page 13, and Table 4 of page 14 was renumbered.

- In the 5th auxiliary request, both tables of page 13 including the accompanying text of the description, namely lines 44-46 at page 12 and lines 22-23 at page 13, were deleted. Table 4 of page 14 was renumbered.

VI. The submissions made by the appellant, as far as they are relevant to this decision, may be summarized as follows:

Due to the indication at page 8, lines 48-49 of the patent in suit: "… that thicknesses reported and used

herein are optical thicknesses reported in Angstrom units", the question arises whether the layer thicknesses are reported therein in terms of optical or actual thicknesses. In the absence of indication in a document as to whether a thickness is reported in terms of optical or actual thickness, the reader would assume that it is an actual thickness. However, as in the present case, on the one hand, the patent explicitly indicates that the thicknesses are optical ones but, on the other hand, all the parties and instances of the EPO always assumed that it was an actual thickness, there is a doubt on the extent of protection and the patent lacks sufficiency of description. The deletion of the word "optical" from page 8 of the patent in suit cannot be considered as an obvious correction of a mistake since neither the parties nor any instance of the EPO noted the mistake.

As to the corrections accepted by the opposition division and those made by the respondent in particular to page 13 of the 2nd to 4th auxiliary requests, the appellant explained that there were several plausible ways of correcting the errors in the tables and therefore the requirements of Rule 88 and Article 123(2) EPC would not be met. The deletion of the middle column of the unnumbered table on page 13 of the description (2nd to 4th auxiliary requests) implied the possibility of envisaging two Examples, the first wherein the layer stack had to be read from the top to the bottom of the table, the glass support being on top of the stack; the second being the reverse situation with the glass support at the bottom thereof. The appellant had no objection under Rule 88 or Article 123(2) EPC against the 5th auxiliary request,

nor against any of the amendments to the claims of all the requests on file.

VII. The respondent essentially argued as follows with respect to the corrections he made under Rule 88 EPC.

The value of 155 Å for the thickness of the silver layer 4a in the unnumbered table fell outside the range of from 70 to 130 Å defined in claim 1 and at page 9, line 21 of the patent in suit. Moreover, this thickness value would be inconsistent with the process data shown in Table 3, because the thicker silver layer would have been obtained with less energy (2.8 kW against 5.0 kW) than the thinner one. When compared with the values of the preferred embodiment set forth in the description (pages 6 and 9 of the patent in suit) and in claim 7, the data shown in said unnumbered table appeared to be exactly those of the preferred embodiment but mistakenly inverted as regards the layer sequence. Thus the sole possibility of correction for the skilled reader was to invert in sequence the thickness values in the unnumbered table in accordance with the preferred embodiment.

As a consequence of this amendment the number of passes in the last line of Table 3 had also to be amended to read "9" instead of "8". This was because if the value of "8" in the last line was consistent with a thickness of 400 Å for the corresponding overcoat layer 2c, then the value of 450 Å for the undercoat layer 2a (first line of the unnumbered table) would be inconsistent with the process data given in the first line of Table 3, which would bring to a thickness of 400 Å only. This would be again inconsistent with the

thicknesses for the undercoat and the overcoat described for the preferred embodiment. As a conclusion, to re-establish the consistency between the data of both tables, the sole possibility was to correct the number of passes in the last line of Table 3 to "9".

The deletion of the middle column in the unnumbered table of page 13 (2^{nd} to 4^{th} auxiliary requests) was justified by the passage in the last line of page 12, which specifies that the layer stack in this table was "that as shown in Figure 1". Bearing in mind the thicknesses of the preferred embodiments disclosed at page 9 and when interpreting the unnumbered table in connection with Figure 1, the reader would have immediately seen that said middle column was wrong, the numbering of the layers being inverted therein. The respondent contested that the deletion of the middle column would imply the disclosure of two examples, submitting that Table 3 clearly indicates which layer is the thicker Ag layer, namely the one which needs more energy for its deposition. Thus, the location of the glass substrate in the unnumbered table could be deduced therefrom, because the thicker Ag layer had to be closer to the top of the stack. Accordingly, by reading together both tables, only one example could have been contemplated by the skilled man.

Concerning the question raised during the oral proceedings whether the layer thicknesses indicated in the claims and in the description are actual or optical thicknesses, the representative could not reach the respondent during the oral proceedings to clarify this point. However his personal opinion was that the

presence of the word "optical" at page 8 of the patent in suit was an additional mistake. He drew attention to the passage on page 9, lines 6-23 of the patent in suit, which gives detailed information concerning the thicknesses of the different layers and pointed out that line 14 of this passage explicitly referred to document US-A-5344718 with respect to the preferred thicknesses of the nucleation layers. Since US '718 disclosed actual thicknesses, the respondent's representative concluded that in the patent in suit they had necessarily to be reported in the same way and therefore the occurrence of an error was obvious for the reader. As to the correction proposed, namely the deletion of the word "optical", he argued that if necessary, further evidence could be given that the thicknesses are actual ones by reworking the example of the patent in suit using the coater settings given in Table 3 but that some time would be needed for carrying out the necessary experimentation.

VIII. The appellant requested that the decision under appeal be set aside and that the European patent No. 0 722 913 be revoked.

The respondent requested that the patent be maintained on the basis of the following documents:

1. description pages 2 to 7, 9 to 15 as maintained by the first instance, page 8 as filed during the oral proceedings, drawings as granted; claims 1 to 17 filed during the oral proceedings as main request or in the alternative

2. description and drawings as maintained by the first instance; claims 1 to 17 filed during the oral proceedings as 1st auxiliary request or in the alternative

3. description pages 2 to 12 and 14 to 15 and drawings as maintained by the first instance, page 13 as filed during the oral proceedings; claims 1 to 17 as filed during the oral proceedings as 2nd auxiliary request or in the alternative

4. description pages 2 to 12 and 14 to 15 and drawings as maintained by the first instance; page 13 as filed during the oral proceedings; claims 1 to 17 as filed during the oral proceedings as 3rd auxiliary request or in the alternative

5. description pages 2 to 12 and 15 and drawings as maintained by the first instance, pages 13 and 14 as filed during the oral proceedings; claims 1 to 17 as filed during the oral proceedings as 4th auxiliary request or in the alternative

6. description pages 2 to 11 and 15 and drawings as maintained by the first instance, pages 12 to 14 as filed during the oral proceedings; claims 1 to 17 as filed during the oral proceedings as 5th auxiliary request.

Reasons for the Decision

1. The appeal is admissible

2. *Main request*

2.1 The board notes that the thickness value of "155 Å" appearing in the unnumbered table of page 13 of the patent in suit for the silver layer 4a (i.e. the silver layer closer to the glass substrate) falls outside the thickness range (70 Å - 130 Å) for the same layer defined in claim 1 and at page 6, line 5 (item c) of the sequence) or at page 9, line 21 of the description. Thus, assuming that claim 1 does not contain any error (the ranges given therein are in agreement with those given at page 6 (lines 3-11) and page 9 of the description), the skilled person would immediately realize that an error occurred as regards the thickness value "155 Å" of this silver layer.

2.2 The board further notes that, as pointed out by the respondent, on page 13 of the patent in suit the data of the unnumbered table are inconsistent with those of Table 3, because the silver layer 4a having the thickness of 155 Å indicated in the unnumbered table of page 13 was produced by consuming less energy than for the silver layer 4b having a thickness of 110 Å. Thus if both tables are read in the same way, i.e. from the top to the bottom with layer 2a being in contact with the glass substrate as shown on Figure 1, the energy values of Table 3 are contradictory with the thickness values of the unnumbered table of page 13 of the patent in suit. Therefore, the skilled person may obviously have doubts as to whether the energy values for producing the silver layers or the thickness of the silver layers are wrong.

2.3 There is a further inconsistency between the tables on page 13 of the patent in suit as explained hereinafter. The Si_3N_4 layers 2a, 2b and 2c of the unnumbered table have thicknesses of 450 Å, 950 Å and 400 Å, respectively. According to the coater settings defined in Table 3, these three layers were deposited under the same operating conditions, with the exception that the number of sputtering passes was different in order to adjust the thickness of the respective layers: see the number of passes of "19" for the intermediate layer 2b and the number of passes of "8" for the undercoat and overcoat layers of silicon nitride. The skilled reader immediately identifies a contradiction between the said two tables, because the undercoat and overcoat Si_3N_4 layers, which according to Table 3 of the patent in suit were both produced by the same number of sputtering passes, namely "8", cannot have under the same sputtering conditions and the same line speed on the one hand a Si_3N_4 layer thickness of 450 Å (layer 2a) and on the other hand a Si_3N_4 layer thickness of 400 Å (layer 2c).

Taking the thickness value of the intermediate Si_3N_4 layer as a basis for calculating the average layer thickness obtained during a sputtering pass, thus the thickness of Si_3N_4 deposited per sputtering pass would be 950 Å : 19, i.e. 50 Å as argued by the respondent.

Bearing in mind this value, the skilled person may thus immediately deduce from this contradiction the two following possible errors, namely:

i) if the number of passes "8" in the first line and in the last line of Table 3 was supposed correct, the

error would lie in the thickness value of the Si_3N_4 layer 2a;
ii) if on the other hand the thickness values of the Si_3N_4 layers 2a and 2c were supposed correct, then the number of passes in the first line of Table 3 would be wrong.

The respondent argued that the thickness values of the Si_3N_4 layers 2a and 2c as well as those of the silver layers have been inverted in the unnumbered table and that the number of passes in the last line of Table 3 is also wrong. The board notes however that, as pointed out above, other plausible errors (see i) and ii) and point 2.2 above) may be identified in the tables of page 13 of the patent in suit.

2.4 The question arises whether the correction proposed, namely the inversion of both the Si_3N_4 layer thicknesses and the Ag layer thicknesses in the unnumbered table and the replacement of the number of passes "8" by "9" in the last line of Table 3 would satisfy the criteria laid down in Rule 88 EPC, second sentence and Article 123(2) EPC. In this respect, it should be born in mind that according to the decision G 11/91, OJ EPO 1993, 125, point 6. of the reasons "[…], if there is any doubt that nothing else would have been intended than what is offered as the correction, a correction cannot be made".

According to decision G 2/95, OJ EPO 1996, 555, point 2. of the reasons, "the interpretation of Rule 88, second sentence, EPC must be in accord with Article 123(2) EPC. This means that a correction under Rule 88 EPC is thus bound by Article 123(2) EPC, in so

far as it relates to the content of the European patent application as filed (G 3/89, loc. cit.; Reasons, 1.3). Such a correction may therefore be made only within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge and seen objectively and relative to the date of filing, from the whole of the documents forming the content of the European patent application (G 3/89, loc. cit.; Reasons, 3). […]"

2.5 Bearing in mind the remarks of items 2.2 and 2.3 *supra*, another plausible correction of the error in the unnumbered table could be only the inversion of the thicknesses of the silver layers 4a and 4b. As a consequence of this inversion, in order to avoid any discrepancy between the tables of page 13 as regards the Si_3N_4 layers, the value "8" in the first line in Table 3 regarding the number of passes may then be corrected by "9".

Alternatively, in addition to the inversion of the thicknesses of the silver layers 4a and 4b in the unnumbered table, instead of the above correction to Table 3, the thickness of the Si_3N_4 layer 2a in the unnumbered table may be corrected to "400 Å". This would also remove the contradiction between the two tables of page 13 as regards the Si_3N_4 layers.

2.6 The respondent put forward that when comparing the data of the unnumbered table at page 13 of the patent in suit with those of the preferred embodiments set forth in the description (page 6, lines 36-50 and page 9) and in claim 7 of the patent in suit, the data shown in said unnumbered table appeared to be exactly those of

the preferred embodiment but mistakenly inverted as regards the layer sequence, therefore the thickness values in the unnumbered table should be considered as being wrongly inverted in sequence. The respondent also submitted that the data of the unnumbered table were those of the unique example of the patent in suit and as conventionally done in patents, the example corresponded to the preferred embodiment described therein.

The board notes that on page 12, last line of the patent in suit (page 34, lines 16-17 of the application as filed) the layer stack is said to be "that as shown in Figure 1 wherein:". The layer stack of Figure 1 is described on page 9, lines 6-38 of the patent in suit. According to page 9, lines 15-16 (page 25, line 25 to page 26, line 2 of the application as filed) the thickness employed for the four nucleation layers is preferably the same as in US-A-5344718, i.e. about below 7 Å and preferably about 6 Å or less. However the nucleation layers are 7 Å thick in the unnumbered table of page 13 of the patent in suit (page 34 of the application as filed), and thus do not have the thickness of the preferred embodiment described on page 9. Thus, the appellant's arguments that the example according to the unnumbered table corresponds to the preferred embodiment disclosed on page 9 is not convincing since it is not in agreement with the actual teaching on this page. In the other embodiment disclosed on page 6 of the patent in suit or in claim 7 (page 16, lines 5-14 and claim 7 of the application as filed) the thickness of the nucleation layers is of "about 7 Å" and the layers sequence is inverted with respect to that of the unnumbered table; however, the

example according to the tables on page 13 does not contain any reference to this embodiment. The application as filed contains no information from which it would be directly and unambiguously derivable that the layers sequence in the unnumbered table corresponds to that of the said embodiment on page 6 or in claim 7 of the patent in suit (page 16, lines 5-14, claim 7 of the application as filed). Even if it is true that in patents, preferred embodiments as defined either in dependent claims or in the description are very often a close reproduction of the example(s), this is nevertheless not an absolute rule and in the present case nothing attests this fact in the patent in suit. It follows from the above that it cannot be directly and unambiguously derived from the application as filed that the data in the unnumbered table on page 13 of the patent in suit (page 34 of the application as filed) corresponds to the preferred embodiments described therein.

In conclusion, since in addition to the correction proposed by the respondent, the above two additional plausible corrections could be envisaged by the skilled person to correct the thickness of the silver layer 4a and to remove the contradictions between the two tables on page 13 (pages 34 and 35 of the application as filed) and since it is not directly and unambiguously derivable from the application as filed that the example on page 13 corresponds to the preferred embodiments, the board considers that the corrections made by the appellant in the two tables of page 13 do not meet the requirements of Rule 88, second sentence EPC and of Article 123(2) EPC. Therefore the main request must be rejected.

3. *First auxiliary request*

The corrections to the tables at page 13 of the patent in suit are the same as in the main request. Therefore, the considerations and conclusions indicated in item 2. above apply likewise to this auxiliary request which must also fail because it does not meet the requirements of Article 123(2) EPC.

4. *Second auxiliary request*

In this request, the correction proposed, namely the deletion of the middle column of the unnumbered table and the correction of the number of passes in the last line of Table 3 to "9" (instead of "8" as originally filed), must be rejected for the following reasons. In addition to the proposed correction there would be other plausible ways for correcting the tables at page 13, namely the corrections already indicated in connection with the main request. Furthermore, instead of the correction of the value "8" to "9" in the last line of Table 3, the thickness of the first Si_3N_4 layer (450 Å) in the unnumbered table could be corrected to "400 Å" in order to remove the discrepancy between the two tables.

Furthermore the respondent argued that as a consequence of the deletion of the middle column and taking into account Table 3 and the reference to Figure 1 on page 12, last line of the patent in suit as well as the description of Figure 1 on page 9 thereof, the skilled person would understand that the glass substrate is located at the bottom in the layer stack of the amended

unnumbered table, i.e. with the outermost Si_3N_4 layer on top. In the board's view, this would mean that the sequence of layers in the unnumbered table of page 13 as amended would thus be inverted with respect to the layers sequence originally disclosed in this table (see the unnumbered table on page 34 of the application as filed). It follows therefrom that the considerations indicated for the main request in connection with the inversion of the layers sequence would apply analogously to the present request and thus that the value "9" in the last line of Table 3 of page 13 cannot be directly and unambiguously derived from the application as filed. Therefore the amendments to the two tables contravene the requirements of Article 123(2) EPC and this request must also be rejected.

5. *Third auxiliary request*

The correction made in this request, i.e. the simultaneous presence of the corrected unnumbered table (by deletion of its middle column) and of Table 3 in its unamended form does not remove the contradiction between the two tables at page 13 since as already mentioned in item 2.3 *supra*, the same number of sputtering passes, namely "8", cannot lead on the one hand to a layer thickness of 450 Å and on the other hand to a layer thickness of 400 Å. Due to the presence of this obvious discrepancy between the number of passes for producing the Si_3N_4 layers and the thicknesses of the layers obtained, the proposed correction is incomplete and thus cannot be considered as deriving directly and unambiguously from the application as originally filed. Furthermore, there are

several plausible ways of correcting the discrepancies between the two tables on page 13 and the reasoning concerning the deletion of the middle column and the inversion of the layers sequence in connection with the second auxiliary request also applies to the present request. Hence, the amendment on page 13 of this auxiliary request violates Article 123(2) EPC and the request must therefore be rejected.

6. *Fourth auxiliary request*

In this request, the amendments carried out, namely the simultaneous deletion of Table 3 and of the middle column of the unnumbered table, do not meet the requirements of Article 123(2) EPC for the following reasons. Firstly, as already stated above, there are several other plausible ways of correcting the errors in the tables of page 13. Secondly, the direct consequence of the absence of the middle column is that the layer stack disclosed in the amended unnumbered table may be read either from the top to the bottom (with the glass substrate at the top) or from the bottom to the top (with the glass substrate at the bottom). The respondent argued that the location of the glass substrate in the unnumbered table could be deduced from the reference to Figure 1 on page 12, last line of the patent in suit and from the description of Figure 1 on page 9, which identifies the thicker Ag layer as being the closest to the top of the layer stack. In the board's view, this would mean that the layers sequence in the amended table on page 13 would be inverted with respect to the one disclosed on page 34 of the application as originally filed (page 13 of the patent in suit). It follows therefrom that the

considerations about the said inversion given above in connection with previous requests apply likewise to this request. Therefore this request cannot be allowed under Article 123(2) EPC.

7. *Fifth auxiliary request*

In this request, the two tables at page 13 and any reference to these tables have been excised from the patent in suit. The deletion of these parts of the description neither extends the scope of protection of the patent, nor does it go beyond the content of the application as originally filed.

The amendments in the claims, namely the systematic deletion of the word "about" from all the claims and the restriction of claim 1 by the feature "said layer e) being substantially thicker than either of the two layers a) and i)" do not go beyond the content of the application as originally filed. A basis for this feature can be found at page 27, lines 5-8 of the application documents as originally filed. Thus the amended claims meet the requirements of Article 123(2) and (3) EPC as regards this request.

8. *Remittal to the first instance*

During the oral proceedings the appellant pointed out in connection with the issue of sufficiency of disclosure that according to page 8, lines 46-49 of the patent in suit, the thicknesses reported and used therein are **optical thicknesses** reported in angstrom units, although claim 1 seems to relate to actual thicknesses. In the appellant's view the skilled person

did not know in view of the patent whether the thicknesses given therein are optical or actual thicknesses and this would be an additional reason for revoking the patent on the basis of insufficiency of disclosure. The respondent's representative emphasized that this objection was raised for the first time at the oral proceedings although discussion of novelty and inventive step had till now taken place assuming that the claimed thicknesses were actual thicknesses. The respondent's representative tried to reach the respondent during the oral proceedings for instructions to clarify this point but without success. His personal opinion was that the thicknesses in the patent in suit were in fact expressed as in US-A-5344718 (which is referred to at page 9, line 14 of the patent), namely as actual thickness and that the statement on page 8, lines 48-49 of the patent in suit was an additional mistake which should also be corrected.

In the board's view the question whether the thicknesses given in the patent in suit are optical thicknesses or not is essential, in particular for the assessment of novelty and inventive step since for example in the case of Si_3N_4 the optical thickness would be about twice the actual thickness. The thickness of the other layers may also be affected depending on the index of refraction of the different materials used. Taking into account that this issue was raised for the first time by the appellant at the oral proceedings to further support its objection of insufficiency of disclosure, and that the respondent did not have the opportunity to be heard on this issue and that this issue is essential for the assessment of novelty and inventive step, the board considers that it creates a

new situation which should be the subject of consideration at two instances. In these circumstances the board, in the exercise of its discretionary power pursuant to Article 111(1) EPC, finds it appropriate to remit the case to the opposition division for clarification of this point and further prosecution of the case.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside

2. The case is remitted to the first instance for further prosecution.

The Registrar: The Chairman:

A. Wallrodt M. Eberhard