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D E C I S I O N
of 18 July 2002

Case Number: T 0651/00 - 3.2.7

Application Number: 95933546.4

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Language of the proceedings: EN

Title of invention:

A Press Pad

Patentee:

Marathon Belting Limited

Opponents:

- 01: Rheinische Filztuchfabrik GmbH
02: Thomas Josef Heimbach GmbH & Co.

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56

Keyword:

"Novelty (yes)"
"Inventive step (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 0651/00 - 3.2.7

D E C I S I O N
of the Technical Board of Appeal 3.2.7
of 18 July 2002

Appellant I: Rheinische Filztuchfabrik GmbH
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 6 June 2000
rejecting the opposition filed against European
patent No. 0 735 949 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: A. Burkhart
Members: H. E. Felgenhauer
J. H. P. Willems

Summary of Facts and Submissions

I. Appellant I (opponent I) and appellant II (opponent II) filed an appeal against the decision of the Opposition Division rejecting the opposition against European patent No. 0 735 949.

Oppositions had been filed against the patent as a whole based on the grounds of opposition according to Article 100(a) EPC (lack of novelty and inventive step).

The Opposition Division held that the grounds for opposition according to Article 100(a) EPC did not prejudice the maintenance of the patent, having regard to the following prior art documents:

D1: EP-A-0 493 630

D2: DE-A-2 650 642

D3: Römpp-Chemie-Lexikon, 8th Edition, 1992, Vol. 5, pages 4168-4172

D4: Römpp-Chemie-Lexikon, 8th Edition, 1992, Vol. 5, page 1668

D5: Ullmanns Enzyklopedie der technischen Chemie, 4th Edition, 1997, Vol. 13, pages 628 - 631

D6: Ullmanns Enzyklopedie der technischen Chemie, 4th Edition, 1982, Vol. 21, pages 521 - 529

D7: Holleman-Wiberg, Lehrbuch der anorganischen Chemie, 81st-90th Edition, 1976, pages 555-557

D8: US-A-3 723 220

D9: DE-B-2 319 593

D10: DE-A-26 27 442

D11: EP-A-0 235 582

D12: DD-A-9674

D13: DE-A-2 338 749

II. Oral proceedings before the Board of Appeal were held on 18 July 2002.

(i) Appellants I and II requested that the decision under appeal be set aside and that the patent be revoked.

(ii) The respondent requested that the appeal be dismissed.

(iii) Claim 1 reads as follows:

"A press pad for use in a laminate press comprising

a woven fabric of heat resistant strands including metal strands and characterised in that

a substantial proportion of at least one of the warp (B) and the weft (A) comprises a silicone elastomer".

III. Appellant I (opponent I) argued essentially as follows:

(i) The subject-matter of claim 1 has to be

interpreted as defining a press pad comprising a woven fabric wherein within this woven fabric, irrespective of the nature of the warp and weft strands employed in making this fabric, a substantial proportion of at least one of the warp and the weft comprises a silicone elastomer. Consequently the subject-matter of claim 1 is not novel with respect to the press pad disclosed in document D9 since according to this document the press pad comprises a woven fabric of metal strands, to which, after having been woven, a silicon elastomer is added. Thus within the woven fabric of the press pad according to document D9 a substantial proportion of the warp and the weft comprises a silicone elastomer.

- (ii) Concerning inventive step document D1, constituting the closest prior art, discloses a press pad according to the first part of claim 1 of the patent in suit, wherein the woven fabric includes metal strands and strands of aromatic polyamide. The subject-matter of claim 1 thus differs from this known press pad only in that a substantial proportion of at least one of the warp and the weft comprises a silicone elastomer.

Concerning the two types of strands comprised within the woven fabric of the press pad according to document D1, each one of these two types of strand materials is associated with a distinctive function with respect to the behaviour of the press pad. Thus having regard to the two requirements a press pad of this kind needs to fulfil, namely providing a good capacity for heat transfer and providing a resilience and

springiness of the press pad such that e.g. the effect of format changes in the laminate sheets being pressed (window effect) is mitigated and the working life of the press pad is increased, document D1 clearly teaches that the capacity for heat transfer is governed by the metal strands while the resilience and springiness is governed by the non-metal, i.e. the aromatic polyamide, strands.

Using this knowledge the person skilled in the art in an attempt to improve the performance of the press pad according to document D1 will make trials within which these two parameters, which are known for governing the behaviour of the press pad, are varied.

Thus, if on the one hand, the capacity for heat transfer is to be improved for the person skilled in the art it is evident that a sufficiently large amount of metal strands has to be provided.

If on the other hand the resilience and springiness is to be improved it is evident that the person skilled in the art will focus on the non-metallic strands.

Since according to document D1 the content of the metal strands can be within the range of 0 to 70 % the teaching of document D1 cannot be improved in this respect.

If however, e.g. due to the content of metal strands, the press pad, with respect to resilience and springiness, does not perform as

required it is evident for the person skilled in the art to focus on the non-metal strands and to substitute these strands, which according to document D1 are made of aromatic polyamide, by ones made of a material which has better properties in this respect. Doing so the person skilled in the art will inevitably consider silicone elastomer due to its well-known properties with respect to resistance to heat and to resilience and springiness. The general technical knowledge in this respect can be derived from documents D3 to D7 and the use of silicone elastomer within press pads or within related items is known from documents D8 to D11 and D13.

According to a first line of argumentation considering document D1 as closest prior art the subject-matter of claim 1 is obvious considering the press pad according to this document together with the one known from document D2. The woven fabric of the press pad according to document D2 can, besides aromatic polyamide strands, comprise rubber strands. Since within this document the type of rubber is not specified and since silicon elastomer is a type of synthetic rubber, it is evident that due to the material properties of silicone elastomer, which are known to be advantageous for this kind of use, this material is an obvious choice for the rubber strands referred to in document D2. Thus considering the use of silicone elastomer strands within the woven fabric of the press pad according to document D2 it is obvious that the person skilled in the art will, in an attempt to improve the

resilience and springiness of the press pad according to document D1, substitute the aromatic polyamide strands employed according to this document by silicone elastomer as suggested by document D2.

According to a second line of argumentation starting from document D1 as closest prior art and considering the general knowledge concerning the material properties of silicone elastomer as given by documents D3 to D7 and the known uses of silicon elastomer or of similar materials in press pads and related items as given by documents D2, D8 to D11 and D13, the distinguishing feature of claim 1 defining a substantial proportion of silicone elastomer as a constituent for at least one of the warp and the weft, can only be considered as being the result of an analogous use or a substitution of a material, which according to the established jurisprudence of the Boards of Appeal cannot be considered as involving an inventive step.

IV. Appellant II (opponent II) argued essentially as follows:

- (i) The arguments of appellant I concerning lack of novelty and the first and second line of argumentation with respect to lack of inventive step were relied upon.
- (ii) In addition according to a third line of argumentation document D2 was considered as constituting the closest prior art. According to this document the woven fabric of a press pad

consists according to a first alternative purely of aramide strands and according to a second alternative of a combination of aramide strands and rubber strands. Since within document D2 the material of the rubber strands is not further defined the person skilled in the art has, in order to apply the teaching according to the second alternative, to select an appropriate material. From the general technical knowledge as well as from the materials used within known press pads and related items, as referred to by appellant I, it is evident that silicone elastomer exhibits the required material properties. Thus it is obvious that for the rubber strands according to document D2 the person skilled in the art would choose ones made of silicone elastomer.

If, starting from a press pad according to the second alternative according to document D2, the woven fabric of which consequently comprises a combination of aromatic polyamide strands and rubber strands made of silicone elastomer, it is desired to enhance the capacity for heat transfer the person skilled in the art, considering the teaching of document D1, according to which this capacity predominantly depends on the provision of metal strands, would immediately introduce metal strands into the woven fabric of the press pad according to document D2. Thus starting from the press pad according to document D2 consideration of document D1, in an attempt to improve the capacity for heat transfer, leads to the press pad according to claim 1 wherein the woven fabric comprises only strands of a material

already referred to in these documents. Thus combined consideration of documents D1 and D2 together with general technical knowledge concerning material properties of silicone elastomer leads to the subject-matter of claim 1, which is thus the result of an attempt to improve the press pad according to document D2 by applying considerations to be expected by the person skilled in the art.

The subject-matter of claim 1 thus does not involve an inventive step.

VI. The respondent (patent proprietor) argued essentially as follows:

- (i) By its own wording, and even more if considered in connection with the description, claim 1 clearly defines that the main constituents of the press pad according to claim 1 are metal strands, and strands of which a substantial proportion comprises a silicone elastomer.

The subject-matter of claim 1 is thus by its characterising feature distinguished from the press pad according to document D9 since according to this document the woven fabric, which is not made of strands which as such comprise silicone elastomer as a constituent, is treated with silicon elastomer such that the openings otherwise present between adjacent strands of the woven fabric are closed by the silicon elastomer to improve the capacity of the press pad to transfer heat. The subject-matter of claim 1 is thus novel.

- (ii) Concerning the first line of argumentation it needs to be considered that the press pad according to document D2 does not comprise metal strands. Thus it is unlikely that the person skilled in the art would consider this document in an attempt to improve the press pad according to document D1. Even if the person skilled in the art considers document D2, neither this document nor document D1 gives an indication leading to the rubber strands comprised within the woven fabric according to the second alternative of the press pad of document D2, isolated from the remainder of the teaching of documents D2, to be introduced into the woven fabric according to document D1, such that a substantial proportion of at least one of the warp and the weft comprises a silicone elastomer.

- (iii) Concerning the second line of argumentation it needs to be considered that according to document D1 on the one hand the capacity of heat transfer of the press pad can be improved by increasing the content of metal strands comprised within the woven fabric. On the other hand the resilience and springiness of the woven fabric, which to a large extent are provided by the aromatic polyamide strands comprised within this woven fabric, can be improved according to this document by increasing the content of the aromatic polyamide strands within the woven fabric. Consequently according to this document resilience and springiness can be improved by increasing the content of aromatic polyamide strands by means of generally known weaving techniques, thus increasing, by an increase of

the weight of the woven fabric per unit area, the resilience and springiness of the press pad. Since according to this document not only a press pad having sufficient capacity of heat transfer and sufficient resilience and springiness is provided but also the measures to be taken in case these characteristics are to be improved is given, the person skilled in the art in trying to improve the press pad with respect to resilience and springiness would not leave the teaching of this document but vary the parameters as proposed within this document.

Consequently, despite the accepted fact that silicone elastomer is generally known to be heat resistant and to have good properties with respect to heat transfer and resilience and springiness, the person skilled in the art in an attempt to improve this latter properties for the press pad according to document D1, would not introduce a material, namely silicone elastomer, since this would clearly go beyond the teaching of this document, and since neither this document nor the general knowledge concerning the material properties of silicone elastomer as given by documents D3 to D7, nor documents D8 to D11 and D13 concerning the use of silicone elastomer or similar materials within press pads or related items give an indication leading to the introduction of silicon elastomer within the press pad according to D1.

- (iv) The reasons given with respect to the first line of argumentation apply correspondingly with respect to the third line of argumentation. First

of all no reason is given for the person skilled in the art to consider from the two alternatives disclosed in document D2, exclusively the second one as a starting point in an attempt to improve the qualities of a press pad. At second, even by doing so the parameters referred to in this document as governing the properties of the press pad, namely the composition and the thickness of the aromatic polyamide strands as well as the weaving structure, will be set appropriately according to the specific working conditions given for a particular press pad. Even if the person skilled in the art leaves this teaching no indication is given that, by introducing metal strands as known from document D1 into the woven fabric according to document D2, in an attempt to further increase the capacity of heat transfer, rubber strands should be maintained in the resulting woven fabric and, if that they were maintained, whether they should be silicone elastomer strands in the proportion defined by claim 1.

Thus the subject-matter of claim 1 involves an inventive step.

Reasons for the Decision

1. Novelty

- 1.1 Due to the wording of that claim the Board considers that the person skilled in the art understands the subject-matter of claim 1 as defining a press pad for use in a laminate press, the press pad comprising a

woven fabric of heat resistant strands including metal strands. The woven fabric further comprises strands, which as such are of a kind that a substantial proportion of at least one of the warp and the weft comprises a silicone elastomer. The Board further considers that the use of the silicone elastomer in the quantity and form defined in claim 1, namely in a substantial proportion and comprised in strands and thus as a constituent of strands as such, leads to the press pad having the stated improved resilience and springiness, which moreover is not solely dependent on the weave structure (column 2, lines 44 to 47; line 57 to column 3, line 2).

- 1.2 The press pad according to document D9 comprises a woven fabric of heat resistant strands, wherein openings present between adjacent strands are filled with silicone elastomer to avoid the otherwise isolating effect of these openings with respect to the capacity of heat transfer (column 2, lines 22 to 28). Thus the press pad according to document D9 does not comprise strands a substantial proportion of which comprises silicone elastomer as a constituent.

Consequently, the subject-matter of claim 1 is novel with respect to document D9. Novelty with respect to the other documents is undisputed.

2. *Inventive step*

2.1 Closest prior art

According to the first line of argumentation of the appellants document D1 is considered as the closest prior art and thus as starting point in the assessment

of whether or not the subject-matter of claim 1 involves an inventive step. The Board likewise considers document D1 as constituting the closest prior art.

Document D1 discloses a press pad comprising a woven fabric of heat resistant strands including metal strands and aromatic polyamide strands. According to this document the capacity of heat transfer is, in comparison to press pads made of layers of kraft paper, improved by the provision of aromatic polyamide strands wherein a further improvement can be obtained by the provision of metal strands in a content of 0 to 70 % (column 2, line 49 to column 3, line 43; column 4, lines 40 to 46). Having regard to resilience and springiness the used textile strands allow, as shown by experiments, the requirements given in this respect to be satisfied, the capacity of resilience and springiness depending to a high degree on the quantity of textile strands comprised within the press pad (column 4, lines 13 to 25). Consequently to further improve resilience and springiness this document proposes to increase the content of the textile strands by known weaving techniques for the weight of the press pad per unit area and thus its springiness being increased (column 4, lines 20 to 25).

According to document D1, even for press pads with a high resilience and springiness, which thus have a heavy and thick or multilayered fabric normally acting to some extent as isolating, the capacity of heat transfer can considerably be improved if metal strands are incorporated (column 5, lines 17 to 24).

Thus, document D1 teaches, that the capacity of heat

transfer can be improved by increasing the content of metal strands, whereas resilience and springiness can be improved by increasing the content of the textile, aromatic polyamide strands. Consequently, if in order to increase the capacity of heat transfer the content of metal strands is increased, this needs to be balanced by a sufficient quantity of aromatic polyamide strands, such that the woven fabric fulfils the requirements with respect to resilience and springiness. This imposes a constraint on the quantity of metal strands relative to the quantity of aromatic polyamide strands comprised within the woven fabric of a press pad and thus on the improvement of the capacity of heat transfer which can be obtained by the provision of metal strands. This constraint can be severed by a tendency of metal strands, referred to in the patent in suit, according to which the metal strands eventually flatten the weave structure to such an extent, that the press pad is unable to relax after each pressing operation, such that the press pad loses its resilience and springiness (patent in suit, column 2, lines 13 to 18).

2.2 Problem underlying the invention

The problem to be solved by the invention of the patent in suit with respect to the press pad according to document D1 thus can be seen "to provide a press pad which has a greater resilience and springiness over conventional pads and for a longer period without compromising the heat conduction capability of the pad" (column 2, lines 44 to 47 of the patent in suit).

2.3 Solution

The aforementioned problem is solved according to claim 1 in that within the press pad according to the first part of claim 1 a substantial proportion of at least one of the warp and the weft comprises a silicone elastomer. According to the patent in suit incorporation of silicone elastomer in the quantity and form defined by the subject-matter of claim 1 results in: "the advantage of using silicone elastomer in a press pad is that it provides a high degree of springiness and resistance to compressive loads which means that the springiness and resilience of the pad is not solely dependent on its weave structure" (column 2, line 57 to column 3, line 2).

2.4 This solution is not rendered obvious by the prior art documents, for the following reasons.

2.4.1 The manner in which resilience and springiness of a press pad is provided according to the subject-matter of claim 1 is in marked contrast to the approach according to document D1, according to which, without mentioning a further parameter, resilience and springiness of a press pad are to a high degree dependent on the content of textile strands within the weave structure.

Due to the different approach taken according to document D1, this document does not lead to silicone elastomer being used within the press pad to provide for resilience and springiness, and even less to the use of silicone elastomer in the quantity and form as defined by the subject-matter of claim 1.

The use of silicone elastomer in the quantity and form defined by the subject-matter of claim 1 likewise is

not suggested by considering the press pad according to document D1 together with the general technical knowledge concerning silicone elastomer and its material properties with respect to heat resistance, resilience and springiness as known e.g. from documents D3 to D7, since knowledge of these material properties as such cannot be considered as leading the person skilled in the art, in an attempt to improve the resilience and springiness of the press pad according to document D1, in a direction beyond the teaching of this document, according to which resilience and springiness of the woven fabric are mainly governed by the content of the textile strands within the woven fabric. Furthermore no indication can be derived from documents D3 to D7 with respect to silicone elastomer being used in form of strands incorporated into the woven fabric of a press pad.

This applies correspondingly with respect to documents D2, D8 to D11 and D13, according to which silicone elastomer and similar materials are used in press pads and related items, since none of these documents suggests the use of silicon elastomer in the quantity and form defined by claim 1.

- 2.4.2 Since according to the teaching of document D2 the woven structure according to this document does not comprise metal strands, it is doubtful whether the person skilled in the art would have considered this document, in an attempt to solve the problem underlying the patent in suit starting from the press pad according to document D1.

Even if, starting from the press pad according to document D1, one would presume that the person skilled

in the art also would consider document D2, combined consideration of these documents does not lead to the subject-matter of claim 1.

Document D2 starts from a known press pad in form of a rubber mat, to which excellent elastic properties are attributed. For this press pad it is criticised that due to its compactness it has an isolating effect with respect to heat transfer (page 2, paragraph 3). Concerning a different known press pad comprising a woven fabric of asbestos strands, having a sufficient capacity of heat transfer, the hazardous nature of asbestos is referred to as being disadvantageous.

To provide a press pad having sufficient capacity of heat transfer without mineral strands being used and which does not lose its resilience and springiness over a period of time (page 3, paragraph 2), document D2 teaches a press pad comprising a woven fabric of heat resistant strands of which at least the warp or the weft strands are made of aromatic polyamide (aramide).

According to a first alternative of document D2, being referred to as the preferred one, the woven fabric is entirely made of aromatic polyamide strands, which according to specific requirements concerning their use need to be set and woven appropriately and given an appropriate thickness (page 3, last paragraph).

According to document D2 for special effects to be obtained it can be effective that, in a second alternative of a press pad, within the woven fabric aromatic polyamide strands can be used together with other suitable materials. As especially suitable

material rubber in form of strands is referred to, as for rubber its effectiveness for the given use is proven (page 4, paragraph 2).

Concerning the incorporation of rubber into the woven structure it is indicated that rubber in form of strands allows, in contrast to compact rubber mats, a weave structure with sufficient capacity of heat transfer. With regard to the weave structure it is indicated that either warp and weft can be made exclusively of one of the two types of strands referred to. Concerning the special effects obtainable it is indicated that for an especially good form-stability, warp and weft strands alike comprise strands of aromatic polyamide and of rubber (page 4, paragraph 2).

While it is not further indicated in detail which effects are to be described by referring to form-stability, within document D2 reference is made to dimensional-stability, which is understood by the Board as defining a synonymous property, by which it is indicated that length and width of a woven fabric are not subject to substantial alteration (page 3, paragraph 3).

While the opinion of appellants I and II, according to which it is evident for the person skilled in the art that the rubber referred to in document D2 can be synthetic rubber in form of silicone elastomer, is followed, the Board cannot follow the further conclusion drawn, namely that use of silicone elastomer strands as the rubber strands mentioned in document D2 suggests provision of such strands in the press pad according to document D1, in order to improve resilience and springiness of this known press pad,

while maintaining the capacity of heat transfer by provision of metal strands.

Considering document D2 in combination with document D1, for which as stated above no indication is given, the person skilled in the art in an attempt to solve the problem underlying the patent in suit first needs to decide which of the two alternatives disclosed in document D2 he will consider.

Considering the first alternative the teaching of document D2 confirms the teaching of document D1, according to which the resilience and springiness of the press pad is governed by the content of aromatic polyamide strands within the woven fabric.

This applies likewise with regard to the second alternative, since according to this alternative likewise aromatic polyamide strands - with their known effect on resilience and springiness depending on their content in a woven fabric - are comprised within the press pad, and since with respect to the rubber strands also comprised within the fabric, even if they are considered as being in form of silicone elastomer strands, no indication is given within document D2 that these strands, in combination with the aromatic polyamide strands, which are known for governing resilience and springiness within the woven fabric of a press pad, contribute in providing these properties. Furthermore no indication is given by the teaching of document D2 that, even without provision of aromatic polyamide strands, which need not be present according to the subject-matter of claim 1 of the patent in suit,

resilience and springiness of the woven fabric of a press pad can be governed by incorporation of silicone elastomer in the quantity and form as defined by the subject-matter of claim 1.

The subject-matter of claim 1 therefore is not suggested by the press pad according to document D1 considered in combination with document D2.

2.4.3 Considering according to the second line of argumentation in combination with document D1, the general technical knowledge as given by documents D3 to D7 and the press pads or related items according to documents D8 to D11 and D13 likewise does not lead to the subject-matter of claim 1.

Documents D8 and D11 each disclose a silicone rubber pad, being located between a overlay sheet of a laminate to be produced and a caul plate of a press and bonded between two release sheets for the manufacture of circuit boards, respectively. Since these pads are provided as compact mats with respect to the capacity of heat transfer these pads have the drawback referred to in document D2 as indicated in section 2.3 above. These known mats, which according to document D2 are replaced by a woven fabric to improve the capacity of heat transfer, thus do not lead to a woven fabric incorporating silicone elastomer as defined by the subject-matter of claim 1.

According to document D9 a press pad comprises a woven fabric of heat resistant strands, wherein openings present between adjacent strands are filled with silicone elastomer to avoid the otherwise isolating effect these openings have with respect to heat

transfer. Although within the problem stated in document D9 it is referred to the elasticity of the press pad (column 2, lines 12 to 16), no indication is given that the provision of the silicon elastomer to fill openings has, in addition to the effect stated above, an effect with respect to resilience and springiness. Moreover according to this document the resistance with respect to compression, which is found as being not too high for a silicone elastomer, will be compensated for by the woven fabric being made of metal strands, the fabric serving as support (column 2, lines 34 to 37). Thus the press pad according to document D9 does not suggest provision of silicone elastomer incorporated into strands of the woven fabric as defined by the subject-matter of claim 1.

For a corresponding reason consideration of document D10, according to which a fabric of irregularly arranged fibres is coated on both sides with a silicone rubber (page 5, paragraph 3), does not contribute in leading to the subject-matter of claim 1. In addition it is not likely that the person skilled in the art, attempting to improve the press pad according to document D1, would have considered the press pad according to document D10 since, as indicated above with respect to documents D8 and D11, the compact structure of the press pad resulting from its coating on both sides leads to its capacity of heat transfer being reduced.

Document D13 concerns a transport and press pad which, in its use, directly contacts the product to be transported and pressed. According to this document use of metal in such pads necessitates compensation of thermal expansion (page 2, last paragraph). To avoid

such expansion this document proposes the pad being made of a woven fabric of glass strands, the individual strands or the entire fabric being coated by a synthetic material (page 3, paragraphs 1, 2). As examples for this synthetic material silicone elastomer and teflon are mentioned (claim 3). It is unlikely that the person skilled in the art, starting from the press pad according to document D1 which comprises metal strands, would have considered document D13. Even if he would have done so this document does not give any indication leading to the incorporation of silicone elastomer into strands of the woven fabric of a press pad according to the subject-matter of claim 1. In this connection it also needs to be taken into account with respect to both of the materials mentioned in document D13, namely silicone elastomer and teflon, that properties, other than heat resistance, or effects to be obtained by these materials are not referred to. Furthermore both of the mentioned materials have a low friction coefficient which apparently is of importance due to the fact, that the pad directly contacts the product to be transported and pressed. As far as the woven fabric of the pad is coated by one of these materials additionally, for the reasons given above with respect to compact mats as referred to in documents D8 to D11, no indication leading to incorporation of silicone elastomer into strands according to the subject-matter of claim 1 could have been given.

Thus none of the available documents discloses or suggests that within the woven fabric of a press pad according to document D1 a substantial proportion of at least one of the warp and the weft should comprise a silicone elastomer.

Furthermore neither from the general knowledge concerning material properties of silicone elastomer as given by documents D3 to D7, nor from one of the documents D2, D8 to D11 and D13 it can be derived that, within the woven fabric of the press pad according to document D1, resilience and springiness of the press pad is not solely dependent on its weave structure, but also due to the high degree of springiness and resistance to compressive loads of silicone elastomer incorporated in the woven fabric in the quantity and form as defined by the subject-matter of claim 1. Thus incorporation of silicone elastomer into strands of the press pad according to document D1 cannot be considered as being the result of an analogous use or substitution of a material.

The subject-matter of claim 1 therefore is not suggested if, starting from document D1 as closest prior art, the general technical knowledge concerning material properties of silicone elastomer as shown by documents D3 to D7 and prior art, as given by documents D2, D8 to D11 and D13, concerning use of silicone elastomer or similar material in press pads and within related items, are considered.

- 2.4.4 The same applies if, according to the third line of argumentation, document D2, taken as constituting the closest prior art, is considered in combination with document D1. Taking this approach the disclosure of this document with respect to the subject-matter of claim 1 remains as indicated in section 2.4.2 above.

Consequently the person skilled in the art at first has to decide which one of the two alternatives will be considered as the starting point in an attempt to

further improve this press pad with respect to its capacity for heat transfer and also with respect to resilience and springiness.

Starting from the first alternative, according to which the woven fabric in its entirety is constituted by aromatic polymer strands and considering the teaching according to document D1, the person skilled in the art would introduce metall strands into the woven fabric to enhance its capacity for heat transfer and simultaneously choose the content of the aromatic polyamide strands and the weaving structure according to the requirement which in respect to resilience and springiness has to be met. Doing so, starting from document D2 and considering document D1, the person skilled in the art would, in an attempt to improve the press pad according to document D2, come to the solution according to document D1. This approach would thus merely lead to the validity of the teaching according to document D1 being confirmed by the teaching of document D2.

In an attempt to improve the capacity of heat transfer as well as resilience and springiness of a press pad the person skilled in the art is not likely to start from the second alternative, since this alternative is mentioned in connection with further effects to be obtained which, as indicated in section 2.4.2 above, neither correspond to the capacity for heat transfer nor to resilience and springiness.

Even if the person skilled in the art started from the second alternative the subject-matter of claim 1 would not be made obvious.

If considering document D1 in an attempt to improve the capacity for heat transfer of the press pad according to the second alternative of document D2, the person skilled in the art would, following a part of the teaching of document D1, incorporate metal strands into the woven structure according to document D2. This would lead to the desired improvement of the capacity for heat transfer. In deciding on the manner in which these metal strands should be incorporated into the woven fabric according document D2, the person skilled in the art would consider the remainder of the teaching of document D1, according to which resilience and springiness of the woven fabric are governed by the content of aromatic polyamide strands and the manner in which these strands are comprised within the weaving structure. Following this approach, thereby avoiding an ex-post facto analysis, an attempt to improve the press pad according to the second alternative of document D2 would, considering the combined teachings of documents D2 and D1, lead the person skilled in the art to the woven structure according to document D1. The person skilled in the art would dispense with the rubber strands comprised according to the second alternative of document D2 because according to the - complete - teaching of document D1 no strands other than the ones of metal and of aromatic polyamide are comprised within the woven fabric, because according to this teaching the resilience and springiness desired for a particular use of a press pad can be obtained by providing the aromatic polyamides in an appropriate quantity and within an appropriate weave structure, and because according to the teaching of document D2 the special effects to be obtained by the incorporation of rubber strands are ones, which do not correspond to the capacity for heat transfer and the resilience and

springiness for which improvement is desired.

For the reasons corresponding to those given in section 2.4.3 above, consideration of the general technical knowledge concerning material properties of silicone elastomer as given by documents D3 to D7 and of documents D8 to D11 and D13 concerning the use of silicone elastomer or similar material in press pads or related items, in addition to the press pad according to document D2, does not lead to the subject-matter of claim 1.

Therefore the subject-matter of claim 1 is not suggested if, starting from document D2 as closest prior art, the general technical knowledge concerning material properties of silicone elastomer as given by documents D3 to D7 and document D1, as well as documents D8 to D11 and D13, are considered.

2.5 Since, regardless of the lines of argumentation followed, the subject-matter of claim 1 is not suggested by documents D1, D2, D8 to D11 and D13, taking into consideration the general technical knowledge given by documents D3 to D7, the subject-matter of claim 1 involves an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

E. Görgmaier

A. Burkhart