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(54) **MOULDING FOR LAMINATE FLOORING**

FORMUNG FÜR LAMINATBODEN

MOULAGE POUR REVÊTEMENT DE SOL EN STRATIFIÉ

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(73) Proprietor: **Lubbe, Wim Jacco
3043 VE Rotterdam (NL)**

(72) Inventor: **Lubbe, Wim Jacco
3043 VE Rotterdam (NL)**

(74) Representative: **Verhees, Godefridus Josephus
Maria et al
Brabants Octrooibureau
De Pinckart 54
5674 CC Nuenen (NL)**

(56) References cited:
**WO-A1-00/78538 WO-A1-2006/122384
DE-A1- 10 117 192**

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Description

Field of the invention

[0001] The present invention relates to a moulding for a laminate flooring. The invention also relates to a method for fixing the moulding to a laminate flooring.

Background of the invention

[0002] Such a moulding is generally known in the application of finishing corners between wall and floor, and particularly between wall covering and flooring. Such a moulding is also referred to as skirting. In the application of mouldings for the finishing of corners between wall and floor a distinction can be made between upright mouldings, lying mouldings and corner mouldings. Upright mouldings are more particularly intended for fixing to the wall. Lying mouldings are more particularly intended for fixing to the flooring and/or the floor. Corner mouldings can be fixed to the wall, the flooring or to both. The present invention relates to a lying moulding for fixing to the flooring. Advantages of such a moulding are that replacement of the flooring does not have any unsightly effects on the wall covering and that arranging of the moulding is relatively simple.

[0003] The present invention relates more particularly to a moulding for finishing known laminate floorings. Applied for this purpose according to the prior art are lying mouldings which are manufactured from a hard material which in practice is impossible to deform by hand. These mouldings can be supplied as strips in predetermined, more or less standard lengths. In a known embodiment the moulding is manufactured from a (wood) fibre pressed together and glued under high pressure and provided with a layer of veneer of wood or of a plastic with an appearance resembling wood-grain.

[0004] The application of a moulding with the above stated features has a number of drawbacks:

- making a moulding to the desired length produces a relatively large amount of unusable residual material;
- joins between connecting mouldings can pull apart as a result of the working of the material from which the mouldings are manufactured and/or of the laminate flooring;
- the hard moulding can result in an undesirable sound bridge between the laminate flooring and the wall;
- the fixing of the mouldings to the laminate flooring requires many operations, wherein particularly the manipulation of the mouldings in small spaces is perceived as difficult;
- a hard, stiff moulding is less suitable for following non-straight walls without gaps;
- a hard, stiff moulding is susceptible to mechanical damage, for instance during cleaning of the laminate flooring with a vacuum cleaner;

- as a result of the so-called 'working' of the laminate flooring wide, unsightly gaps may occur between the moulding and the wall. The moulding, or a part thereof, can hereby also detach from the laminate flooring;
- the known mouldings are difficult to transport and therefore susceptible to damage during transport;
- a moulding of the known type does not yield when, during arranging of the moulding, the length made does not correspond exactly to the desired length.

[0005] Some, but not all drawbacks mentioned here can be overcome by applying a moulding composed of a manually deformable material, such as plastic foam known from the prior art. Relevant documents describing the state of the art are WO00/78538 and WO2006/122384. WO00/78538 reveals an architectural moulding including an extruded flexible plastic foam member, to be installed at the base, mid-portion or top of an architectural wall. The document discloses several measures meant to fix the deformable moulding to a wall and/or ceiling in order to provide decoration and to cover various raw edges and imperfections. A package containing the deformable moulding in a rolled-up manner is also disclosed. WO00/78538 however does not address the problem of a lying moulding to be fixed uniquely on a laminate flooring and, amongst others, meant to prevent the occurrence of a gap between the moulding and the wall due to dimensional 'working' of the laminate flooring.

[0006] WO2006/122384 refers to different finishing profiles for lining, half wall and floor, including mouldings. WO2006/122384 presents a moulding composed by an EVA (Ethylene Vinyl Acetate) or PE (Poly Ethylene) base, or the mixture of both of them, with own optional fixation means. The fixation means presented in WO2006/122384 refer to a fixation profile. Joining a laminate flooring and a moulding using the intermediate fixation profile may be effective in many ways, but is considered here to be relatively expensive in terms of both material and labour costs.

[0007] DE10117192 reveals a method to fit a moulding, preferably made from a plastic foam, with decorative film. DE10117192 too does not address the problem of a lying moulding to be fixed uniquely on a laminate flooring and, amongst others, meant to prevent the occurrence of a gap between the moulding and the wall due to dimensional 'working' of the laminate flooring.

[0008] The object of the present invention is, among others, to provide a lying moulding for finishing a laminate flooring at a relatively low cost and that is easy to fix to the laminate flooring uniquely and is particularly meant to prevent the occurrence of unsightly gaps between the moulding and the adjoining wall due to dimensional 'working' of the laminate flooring.

Summary of the invention

[0009] For this purpose the moulding of the above

specified type is characterized according to the invention in that the lying moulding for fixing to a laminate flooring is manufactured from a material which is elastically deformable in the length and width directions. The advantages of applying such a moulding are that:

- the moulding can be fixed to the laminate flooring under pre-stress against the wall such that the chance of an unsightly gap forming between the wall and the moulding as a result of working of the laminate flooring is near zero;
- an outer end of the moulding can be elongated or shortened when respectively a gap or overlap between the outer ends of two connecting mouldings make this desirable;
- the moulding can absorb stresses, for instance when the moulding is pressed against the wall as a result of working of the laminate flooring, so that the chance of the connection between the moulding and the laminate flooring breaking is minimal;
- the moulding is suitable for following, without gaps, a wall which is not wholly straight;
- possible vibrations of the floor are transmitted in damped manner to the wall, and vice versa.

[0010] According to the invention the moulding is manufactured from a plastic foam material which can be produced inexpensively and is provided on one side with an adhesive material. The moulding preferably has the external features of a wood-grain such that the moulding can be combined well with known laminate floorings.

[0011] The moulding according to the invention further has the feature that the modulus of elasticity (E_y) of the moulding is less than 0.5 GPa in a direction at right angles to the longitudinal direction. Owing to this property the moulding can be pressed in elastically deforming manner against a wall using muscle power before the moulding is fixed with the adhesive layer to the laminate flooring. At least some of the working of the laminate flooring can thus be absorbed without a gap occurring between the wall and the floor and without the adhesive connection between the moulding and the laminate flooring being broken.

[0012] The modulus of elasticity (E_x) of the moulding is likewise less than 0.5 GPa in the longitudinal direction. The most frequently occurring gaps and overlaps between connecting mouldings, for instance in a corner of a room, and which are for instance the result of measuring inaccuracies, can hereby be removed by respectively elongating and shortening the moulding using muscle power. This property is advantageous in respect of the convenience and speed of arranging the moulding.

[0013] The moulding according to the invention is preferably substantially mirror-symmetrical, with a plane of symmetry in the longitudinal direction at right angles to a wide side. Owing to this feature the moulding can be applied along an edge of a laminate flooring in both directions, whereby the number of operations for fixing the

moulding can be reduced.

[0014] The moulding is also received in unrollable manner in a convenient packaging with a length of at least 3 m. This feature provides advantages for handling of the moulding with a relatively great length and, related to this, preventing damage thereto. The relatively great length moreover results in less unusable residual material and fewer connecting joints, with all the resulting advantages.

[0015] The moulding according to the invention is further characterized by a method for arranging the moulding to a laminate flooring. This method comprises inter alia of:

- partially unrolling the moulding by pulling on a first outer end protruding from the opening of the packaging;
- fixing the first outer end of the moulding adheringly to the laminate flooring in a first corner of a room;
- fixing the moulding to the laminate flooring from the first corner in the direction of a second corner, wherein the moulding is pressed manually in steps against the wall in deforming manner and is then fixed to the laminate flooring;
- placing a cutting tool in the second corner;
- guiding the moulding over the cutting tool and cutting through the moulding by operating the cutting tool;
- fixing the thus formed second outer end to the flooring at the position of the second corner.

[0016] Owing to these features of the method for arranging the moulding according to the invention the time required by a skilled person to arrange the moulding on a laminate flooring can be drastically reduced and the quality of the work greatly improved.

Short description of the figures

[0017] The invention is elucidated herein below with reference to two figures. Figure 1 herein shows a schematic cross-section of a moulding according to the invention, and figure 2 a schematic cross-section of a room with a laminate flooring and a moulding arranged thereon.

Exemplary embodiment of a moulding and a method for arranging the moulding according to the invention

[0018] The invention will be further elucidated herein below by way of example on the basis of an exemplary embodiment shown in two drawings. Figure 1 herein shows a schematic view cross-section of a moulding (1) according to the invention. Moulding (1) is constructed substantially from a body (2) of an elastically deformable material, preferably a plastic foam. Body (2) is at least partially enveloped by a likewise elastically deformable plastic layer (3), preferably with an appearance resembling a wood-grain. Moulding (1) further comprises on

the underside an adhesive layer (4) which is covered with a removable cover film (5).

[0019] The elastic properties of moulding (1) are such that moulding (1) can be elastically shortened in a direction at right angles to the longitudinal direction using muscle power, and that moulding (1) can be elastically elongated and shortened in the longitudinal direction using muscle power.

[0020] Moulding (1) is preferably substantially mirror-symmetrical, with a plane of symmetry in the longitudinal direction at right angles to a wide side. The upper side of moulding (1) is preferably provided with rounded corners as according to the exemplary embodiment in figure 1 in order to prevent damage by for instance sliding furniture.

[0021] Figure 2 shows a schematic cross-section of a room with a wall (6), provided with a wall covering (7), a floor (8), a laminate flooring (9) on an insulating layer (10) and a moulding (1) fixed to the laminate flooring (9) using adhesive layer (4). Moulding (1) is intended particularly, though not solely, for finishing a known laminate flooring (9).

[0022] The advantages of a moulding (1) according to the invention become manifest when moulding (1) is arranged on a laminate flooring (9) and when the desired functions of a moulding are to be maintained over time. The method according to the invention relates to arranging a moulding on a laminate flooring in an efficient and effective manner. Moulding (1), with a length of at least 3 metres and preferably a multiple thereof, is preferably packaged for this purpose in unrollable form, i.e. in a coiled state. During arrangement moulding (1) is pulled out of the packaging at an outer end. After removal of cover film (5) from a part of moulding (1), one part of moulding (1) at a time is pressed using muscle power against wall (6) with wall covering (7), preferably starting in a first corner of a room. Moulding (1) deforms elastically here. The radius of the rounded corner here decreases, as emphasized with the circle with broken line in figure 2. The part of the moulding is then fixed adheringly to the laminate flooring. In the second corner is placed a cutting tool suitable for the purpose, over which a part of moulding (1) is guided in a substantially vertical direction. Moulding (1) is then cut to size. This procedure is repeated along the other walls and corners. In the unlikely event of gaps or overlaps occurring between abutting lengths of moulding (1), these can be removed by respectively elongating or shortening an outer end of a length of moulding (1) and then fixing it adheringly to laminate flooring (9).

[0023] Laminate floorings can contract and expand under the influence of variation in air humidity and temperature. This is referred to as 'working' of the flooring. In known mouldings of a hard, relatively non-deformable material the working of the laminate flooring can result in stresses which result in breaking of the adhesive connection between the known moulding and the laminate flooring. In the case of moulding (1) according to the

present invention there is a much smaller to zero chance of the connection breaking. In the case of the known hard mouldings, corners directed toward the inside of the room are particularly susceptible to mechanical damage. With moulding (1) according to the invention the chance of mechanical damage is minimal. This is also the case in respect of the chance of damage during transport and arranging of moulding (1).

[0024] In the choice of an elastically deformable material for the manufacture of moulding (1) according to the invention the idea that the material and/or the material properties of a moulding for a laminate flooring have to be similar to those of the laminate flooring is rejected in a creative, effective manner.

Claims

1. Lying moulding (1) for fixing to a laminate flooring and meant to press against an adjoining wall structure, **characterized in that** the moulding (1) is manufactured from a material which is elastically deformable in the length and width directions, where:

- the modulus of elasticity (E_y) of the moulding (1) is less than 0.5 GPa in a direction at right angles to the longitudinal direction;
- the modulus of elasticity (E_x) of the moulding (1) is less than 0.5 GPa in the longitudinal direction.

2. Method for arranging a moulding (1) as claimed in claim 1 and packed in a coiled state, **characterized in that** the method comprises of:

- partially unrolling the moulding (1) by pulling on a first outer end protruding from the opening of the packaging;
- fixing the first outer end of the moulding (1) adheringly to the laminate flooring in a first corner of a room;
- fixing the moulding (1) to the laminate flooring from the first corner in the direction of a second corner, wherein the moulding (1) is pressed manually in steps against the wall in deforming manner and is then fixed to the laminate flooring;
- placing a cutting tool in the second corner;
- guiding the moulding (1) over the cutting tool and cutting through the moulding (1) by operating the cutting tool;
- fixing the thus formed second outer end to the flooring at the position of the second corner.

Patentansprüche

1. Liegend angeordnete Blendleiste (1) für die Befestigung auf einem Laminatboden und dazu bestimmt,

an eine angrenzende Wandstruktur angedrückt zu werden, **dadurch gekennzeichnet, dass** die Blendleiste (1) aus einem in Längs- und Querrichtung elastisch verformbaren Material gefertigt ist, wobei:

- der Elastizitätsmodul (E_y) der Blendleiste (1) in einer Richtung, die im rechten Winkel zur Längsrichtung verläuft, weniger als 0,5 GPa beträgt; 5
- der Elastizitätsmodul (E_x) der Blendleiste (1) in Längsrichtung weniger als 0,5 GPa beträgt. 10

2. Arbeitsweise für die Anbringung der Blendleiste (1) nach Anspruch 1, die in aufgerolltem Zustand verpackt ist, **dadurch gekennzeichnet, dass** die Arbeitsweise die folgenden Schritte umfasst: 15

- das teilweise Abrollen der Blendleiste (1), indem an einem ersten Ende gezogen wird, das aus der Öffnung der Verpackung herausragt; 20
- die klebende Befestigung des ersten Endes der Blendleiste (1) auf dem Laminatboden in einer ersten Ecke eines Raums;
- die Befestigung der Blendleiste (1) auf dem Laminatboden von der ersten Ecke in die Richtung einer zweiten Ecke, wobei die Blendleiste (1), während sie von Hand verformt wird, schrittweise an die Wand gedrückt und danach auf dem Laminatboden befestigt wird; 25
- das Aufsetzen eines Schneidwerkzeugs in der zweiten Ecke; 30
- das Führen der Blendleiste (1) über das Schneidwerkzeug und das Durchtrennen der Blendleiste (1) durch Betätigung des Schneidwerkzeugs; 35
- die Befestigung des so gebildeten zweiten Endes an dem Laminatboden im Bereich der zweiten Ecke. 40

Revendications

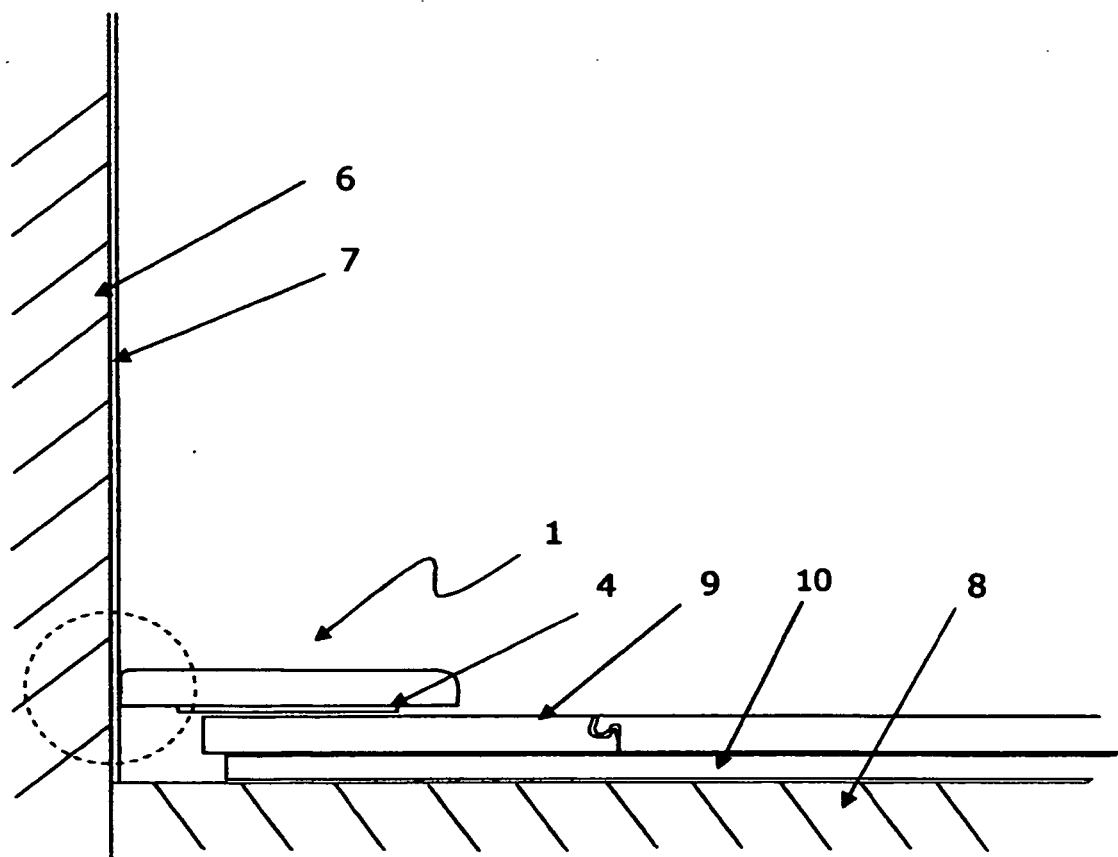
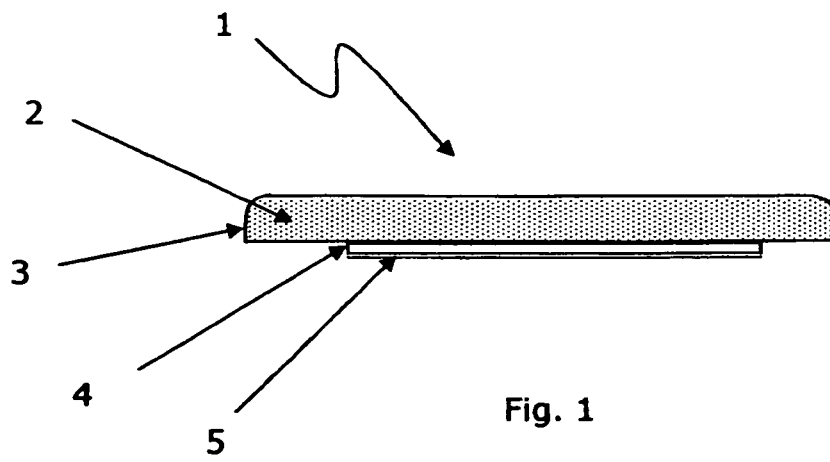
1. Moulure de finition (1) horizontale pour fixation sur un revêtement de sol en stratifié et destiné à une pression sur une structure murale adjacente, **se caractérisant par le fait que** la moulure de finition (1) est fabriquée à partir d'un matériau à déformation élastique longitudinale et transversale dont : 45

- le module d'élasticité (E_y) de la moulure de finition (1) dans un axe perpendiculaire à l'axe longitudinal est inférieur à 0,5 GPa; 50
- le module d'élasticité (E_x) de la moulure de finition dans l'axe longitudinal est inférieur à 0,5 GPa. 55

2. Le procédé d'application d'une moulure de finition (1) selon la revendication 1, emballé enroulé et **se**

caractérisant par un procédé composé des étapes ci-après :

- le déroulement partiel de la moulure de finition (1) en tirant sur la première extrémité sortant de l'ouverture de l'emballage;
- placer la partie collante de la première extrémité de la moulure de finition (1) sur le revêtement de sol en stratifié dans le premier angle d'une pièce;
- fixer la moulure de finition (1) sur le revêtement de sol en stratifié depuis le premier angle en continuant vers le second angle, en pressant des doigts la moulure de finition (1) contre le mur tout en la formant progressivement pour la fixer ensuite sur le revêtement de sol en stratifié;
- placer un outil de coupe dans le second angle;
- guider la moulure de finition (1) sur l'outil de coupe et trancher la moulure de finition (1) en utilisant l'outil de coupe;
- fixer dans le second angle la deuxième extrémité ainsi formée au revêtement de sol en stratifié.



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 0078538 A [0005]
- WO 2006122384 A [0005] [0006]
- DE 10117192 [0007]