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Spare set of claims

Claims

1. An insulation panel comprising:
 - a rigid central portion; and
 - integral deformable side portions on each side of the central portion configured to conform to spaces adjacent the central portion;
 - wherein the central portion comprises a polyisocyanurate core faced with a metal foil.
2. The insulation panel of claim 1, wherein the side portions comprise polyurethane foam.
3. The insulation panel of claim 2, wherein the sides include 40%–50% polyurethane foam and 50%–60% mineral wool.
4. The insulation panel of claim 2 or 3, wherein the metal foil extends over the side portions.
5. The insulation panel of any preceding claim, wherein the panel is more than 10 cm thick.
6. A method of installing the insulation panel of claims 1–5, the method comprising:
 - cutting the central portion and the side portions to a desired length; and
 - installing the insulation panel between two surfaces by conforming the side portion to the space between the central portion and the two surfaces.

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CONSTRUCTION

Claim 1

1.1 – An insulation panel comprising

- Insulation panel = a product for providing thermal insulation (p5, l33). Is suitable for installing in walls, ceilings or floors of buildings (p5, l32), but the claim language is not limited to this.
- Comprising = having; not limiting – can have additional features.

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1.2 – a rigid central portion; and

- Rigid central portion = the central portion is rigid in that it is a fixed size (i.e. the size of the central portion does not change) (p5, l1). The central portion is the portion of the installation panel between the two side portions, i.e. the portion is central in relation to the side portions (as shown in Fig 2 on page 9). The central portion can be cuboid (p6, l12-13) but the claim language is not limited to this so can be any suitable shape.
- And = must contain the following feature in addition because conventional meaning.

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1.3 – integral deformable side portions on each side of the central portion

configured to conform to spaces adjacent the central portion

- Integral deformable side portions = the side portions form one piece with the central portion (each side portion is integral with the central portion, the side portions are not integral with each other, as shown in Fig 2 on

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page 9). The side portions can be adhered to the central portion (p6, I14), but the claim language is not limited to this. However, the side portions cannot be formed from the same piece of material as the central portion because the central portion is rigid and the side portions are deformable, so the side portions cannot be integral in this sense. Therefore, the side portions are integral to the central portion by being adhered to the central portion.

- The side portions are deformable in that they can adopt a range of sizes to fill in gaps adjacent to the central portion (p5, I1-3). The side portions can be compressible (p6, I13-14) but the claim language is not limited to this. The side portions can be deformable when the panel is being installed (p5, I1-2), but the claim language is not limited to this and so the side portions can also be deformable once the insulation panel is installed.
- On each side of the central portion = the side portions are on opposite sides of the central portion (p6, I14). Fig 2 on page 9 shows that the central portions are on the long side of the central portion (and as described on p6, I2-3), but the claim language is not limited to this.
- Configured to = the side portions are suitable to conform to spaces adjacent the central portion.
- Conform to spaces adjacent the central portion = the side portions can adopt a range of sizes to fill in gaps adjacent to the central portion (p5, I1-3).

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1.4 – wherein the central portion comprises a polyisocyanurate core faced with a metal foil

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- Central portion = there is no antecedent basis for “central portion”, however I will construe this to be the rigid central portion as in 1.2. Therefore, as above 1.2.
- Comprises = has; not limiting – can have additional features.
- Polyisocyanurate core = insulating material (p4, l5). The PIR is a foam (p4, l5-6). The PIR forms the core of the central portion, which is the main portion of the central panel.
- Faced with a metal foil = the central portion can be faced by the metal foil on one or both sides (p5, l21). The metal foil extends over the entire front and rear surfaces of the insulation panel (p6, l18-19). Due to the repercussive effect of claim 4, the metal foil can extend over the side portions but claim 1 is broader than this, so can also not extend over the side portions.
- Metal foil = can be aluminium foil (p5, l21-22), however the claim language is not limited to this. So the metal foil can be any suitable metal foil which reflects radiant heat to improve the insulation performance of the panel (p5, l22).

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Claim 2

2.1 – The insulation panel of claim 1

- Has all the features of claim 1 in addition to the following features.

2.2 – wherein the side portions comprise polyurethane foam

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- Side portions = there is no antecedent basis for “side portions”, but I will construe this to be the integral deformable side portions as in 1.3.
Therefore, as above 1.3.
- Comprise = has; not limiting – can have additional features.
- Polyurethane foam = the polyurethane foam can be made from small beads of foam (p6, l15), but the claim language is not limited to this so the polyurethane foam can be in any suitable format which enables the side portions to be deformable.

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Claim 3

3.1 – The insulation panel of claim 2

- Has all the features of claim 1+2 in addition to the following features.

3.2 – wherein the sides include 40%-50% polyurethane foam and 50%-60% mineral wool

- Sides = there is no antecedent basis for “sides”. However, due to the fact that claim 3 is dependent on claim 2 and claim 2 refers to side portions, I will construe that the sides are the side portions. Therefore, as above 1.3.
- Include = comprise or have; not limiting – can have additional features.
- 40%-50% polyurethane foam = polyurethane foam is as above 2.2. The polyurethane foam is made of 40%-50% polyurethane foam by weight (p5, l13-14). It is essential that the polyurethane foam is measured by weight because the volume of the side portions can change (p5, l14). There is no disclosure of the tolerance of the range.

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- And = must contain the following feature in addition because conventional meaning.
- 50%-60% mineral wool = the mineral wool is a filler (p5, I18). The remainder of the side portion not formed by the polyurethane foam can be the mineral wool (p5, I17-18), however the claim language is not limited to the side portion only being formed of polyurethane foam and mineral wool, so the side portion can comprise additional materials (i.e. the lower ranges of polyurethane foam and mineral wool are used). There is no disclosure of the tolerance of the range of the mineral wool.

Claim 4

4.1 – The insulation panel of claim 2 or 3

- Has all the features of claim 1+2 or 1+2+3 in addition to the following features.

4.2 – wherein the metal foil extends over the side portions

- Metal foil = as above 1.4.
- Extends over the side portions = the metal foil covers at least a portion of the side portions (as shown in Fig 2 on page 9). The metal foil is not adhered to the side portions to prevent the foil becoming distorted or ripped when the side portions are compressed (p6, I22-23).
- The metal foil extending over the side portions suggests that the metal foil which covers is an extension of the metal foil covering the central portion (i.e. the metal foil covering the central portion and side portions is one integral piece).

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- The metal foil extends over the side portions to provide reflective insulation to the side portions (p6, I21-22).
- Side portions = as above 1.3.

Claim 5

5.1 – The insulation panel of any preceding claim

- Has all the features of claim 1, 1+2, 1+2+3, 1+2+4 or 1+2+3+4 in addition to the following features.

5.2 – where in the panel is more than 10 cm thick

- Panel = there is no antecedent basis for “panel”, but I will construe this to be the insulation panel. Therefore, as above 1.1.
- Is more than 10 cm thick = the panel cannot have a thickness of 10 cm or less. The thickness of the panel refers to the distance between the front and rear surfaces of the central portion and side portions.

Claim 6

6.1 – A method of installing the insulation panel of claims 1-5, the method comprising

- Independent claim.
- The method uses the insulation panel of claim 1, 1+2, 1+2+3, 1+2+4, 1+2+3+4, 1+5, 1+2+5, 1+2+3+5, 1+2+4+5 or 1+2+3+4+5.
- Comprising = having; not limiting – the method can have additional steps.

6.2 – cutting the central portion and the side portions to a desired length; and

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- Cutting = can be with hand tools (p5, I28) or with a saw (p6, I4) but the claim language is not limited to this so the central portion and side portions can be cut using any suitable means.
- The central portion and side portions = both the central portion and the side portions must be cut.
- To a desired length = the length of the central and side portions is the same as the height of the studs (p7, I7). The length of the central portion and the side portions is the same.
- And = the method must include the following step in addition because conventional meaning.
- Central portion = as above 1.2.
- Side portions = as above 1.3.

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6.3 – installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces

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- Installing the insulation panel = the insulation panel is put into position between the two surfaces (p7, I8). The panel can be pushed into place (p7, I9) but the claim language is not limited to this.
- Insulation panel = as above 1.1.
- Between two surfaces = the surfaces are the studs (p7, I8).
- By conforming the side portions to the space between the central portion and the two surfaces = the size of the side portions changes once the panel is inserted into place between the studs/surfaces so that no uninsulated gaps remain (p7, I9-10). The side portions can be compressed (p7, I9) but the claim language is not limited to this.

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- Side portions = as above 1.3.
- Central portion 1.2.

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Construction

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INFRINGEMENT

Claim 1

1.1 – An insulation panel comprising

- The EdgeFlex is an insulation product (p12, l2) designed for installation in walls (p12, l14).
- Provides thermal efficiency (p12, l3), so is thermally insulating.
- Feature present? Yes.

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1.2 – a rigid central portion; and

- The board has a PIR panel (p12, l5), which is shown in Fig 1 on page 12 to be central in relation to the side pockets.
- The PIR is rigid (p12, l3).
- Feature present? Yes.

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1.3 – integral deformable side portions on each side of the central portion

configured to conform to spaces adjacent the central portion

- The pockets are the side panels (p12, l5). The pockets are shown in Fig 1 on page 12 to be on opposite sides of the central portion, and the pockets are add on the long side walls of the board/central portion (p12, l6).
- The pockets are added onto the side walls of the board (p12, l6), so are adhered to the board/central portion, which meets my construction that the side portions can be integral by being adhered to the central portion. The pockets and board are formed from different materials, which also meets my construction.

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- The pockets can expand (p12, l8) and can fill up to 30 mm of space adjacent the central PIR board (p12, l17-18) so can adopt a range of sizes and are therefore deformable as per my construction.
- Feature present? Yes.

1

1.4 – wherein the central portion comprises a polyisocyanurate core faced with a metal foil

- The central board is formed of PIR (p12, l5).
- The PIR is the centre and so is the core (p12, l18).
- The PIR panel is foil-faced (p12, l5). Fig 1 on page 12 shows that the central portion is covered by the foil on at least the front surface of the PIR panel.
- The foil provides reflective insulation (p13, l15-16).
- Feature present? Yes.

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Therefore, claim 1 is infringed by Doc B.

Claim 2

2.1 – The insulation panel of claim 1

- Has all the features of claim 1.
- Feature present? Yes.

2.2 – wherein the side portions comprise polyurethane foam

- The pockets (i.e. the side portions) can be filled with polyurethane foam (p12, l6-8), so the pockets comprise polyurethane foam.

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- The form of the foam is not disclosed, but as per my construction the foam can be in any suitable format.
- Feature present? Yes.

Therefore, claim 2 is infringed by Doc B.

Claim 3

3.1 – The insulation panel of claim 2

- Has all the features of claim 1 and claim 2.
- Feature present? Yes.

3.2 – wherein the sides include 40%-50% polyurethane foam and 50%-60% mineral wool

- There is no disclosure in Doc B that the pockets are filled with any other material in addition to the polyurethane foam.
- Filling the pockets with mineral wool is not disclosed.
- Feature present? No.

Therefore, claim 3 is not infringed by Doc B.

Claim 4

4.1 – The insulation panel of claim 2 or 3

- Has all the features of claim 1 and claim. Does not have all the features of claim 3.
- Feature present? Yes when dependent on claim 2, no when dependent on claim 3.

4.2 – wherein the metal foil extends over the side portions

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- The pockets are covered with an aluminium foil which provide reflective insulation (p13, l15-16).
- However, the foil covering the pockets is separate to the foil covering the central PIR board, so the foil covering the central PIR board is not extending over the side portions.
- In addition, the aluminium foil is adhesive foil (p13, l15), which does not meet my construction that the metal foil is not adhered to the side portions.
- Feature present? No.

Therefore, claim 4 is not infringed by Doc B.

Claim 5

5.1 – The insulation panel of any preceding claim

- Has all the features of claim 1 and claim 2. Does not have all the features of claim 3 or claim 4.
- Feature present? Yes when dependent on claim 1 or claim 2, no when dependent on claim 3 or claim 4.

5.2 – where in the panel is more than 10 cm thick

- The EdgeFlex is available in a variety of thicknesses, including 50 mm and 100 mm (p12, l19-20).
- A thickness of more than 10 cm is not disclosed in Doc B.
- Feature present? No.

Therefore, claim 5 is not infringed by Doc B.

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Claim 6

6.1 – A method of installing the insulation panel of claims 1-5, the method comprising

- Doc B discloses a method of installing the insulation panel on page 13.
- Doc B discloses an insulation panel having all the features of claim 1 or claim 2.
- Feature present? Yes, when installing a panel according to claim 1 or claim 2.

1

6.2 – cutting the central portion and the side portions to a desired length; and

- The insulation board is cut to a length which matches the height of the wall (p13, l1-2). Fig 2 on page 13 shows that the studs are the same height as the wall, the length of the insulation board will be the same as the height of the studs, as per my construction.
- Fig 2 on page 13 shows that both the central panel and the pockets are cut, and that the length of the central panel and the pockets is the same.
- The insulation board can be cut with a handsaw (p13, l2), which meets my construction that any suitable cutting means can be used.
- Feature present? Yes.

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6.3 – installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces

- The insulation board is positioned between the two studs (and as per my construction the surfaces are the studs) (p13, l4 and as shown in Fig 2 on page 13).

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- The pockets expand when they are filled with the polyurethane foam to fill the space adjacent to the PIR and prevent any air gaps remaining (p13, l10-12). The expansion of the pockets means that the size of the pockets changes, which meets my construction.
- Feature present? Yes.

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Therefore, claim 6 is infringed by Doc B.

- Claims 3, 4 and 5 are not directly infringed by Doc B.
- However, these claims may be infringed by equivalence.
- Therefore, will need to use the Actavis test to assess whether claims 3, 4 and 5 are infringed by equivalence.
- The first Actavis question asks whether, for each claim, substantially the same result is achieved in substantially the same way. If this question is answered 'no', then the claim is not infringed by equivalence.
- For claim 3, the mixture of polyurethane foam and mineral wool at the claimed ranges results in the provision of over 75% of the insulative performance of PIR when the poluyurethane foam and mineral wool mixture is compressed. The pockets of Doc B are not compressed, so do not achieve substantially the same result in substantially the same way. Therefore, claim 3 is not infringed by equivalence.
- For claim 4, the adhesive aluminium foil achieves substantially the same result of providing reflective insulation, but does not achieve this result in substantially the same way because the metal foil is not extended over the side portions and is adhered to the side portions. In addition, the metal foil

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is adhered to the pockets after the pockets have conformed, which differs to claim 4. Therefore, claim 4 is not infringed by equivalence.

- For claim 5, the 10 cm thickness precludes the use of hand tools for cutting the insulation panel, whereas the insulation panel of Doc B can be cut with a handsaw, so does not achieve substantially the same result in substantially the same way. Therefore, claim 5 is not infringed by equivalence.

Infringement

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Summary

- Claims 1, 2 and 6 are infringed by Doc B.
- Claims 3, 4 and 5 are not infringed by Doc B.

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NOVELTY

- The novelty of the claims of Doc A needs to be assessed.
- The effective date of the patent is either the priority date of the patent (when the patent claims priority) or the filing date of the patent (when the patent does not claim priority). Doc A does not claim priority, so the filing date of Doc A is the effective date. Therefore, the effective date of Doc A is 15 July 2022. The effective date is the date from which the prior art is assessed.
- Doc C is relevant for novelty because it was published before the filing date of Doc A.
- The prior art insulation panel described on page 4, I5-28 of Doc A is also relevant for novelty because it was known before the filing date of Doc A.

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Doc C

Claim 1

1.1 – An insulation panel comprising

- Insulation board for installing into stud wall (p14, 5).I
- For preventing the cold (p14, I4-5) so provides thermal insulation.
- Feature present? Yes.

1

1.2 – a rigid central portion; and

- The central portion is formed from PIR (as shown in the figure on page 14), and the PIR is described as rigid (p14, I5).
- Feature present? Yes.

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1.3 – integral deformable side portions on each side of the central portion
configured to conform to spaces adjacent the central portion

- The side portions are formed of mineral wool (p14, l22 and p14, l25-27) which are glued to the central portion (p14, l26-27), so the side portions are adhered to the central portion and are therefore integral with the central portion as per my construction. The side portions are also formed of a different material to the central portion.
- The mineral wool side portions are shown in the figure on page 14 to be attached to the long sides of the central portion.
- The mineral wool can be compressed, so can adopt a range of sizes to fill gaps adjacent to the central portion (p14, l28), so is deformable as per my construction.
- Feature present? Yes.

1

1.4 – wherein the central portion comprises a polyisocyanurate core faced with a metal foil

- The central portion is formed from PIR and is foil-faced (as shown in the annotation of the figure on page 14). The figure shows that the central portion is foil-faced on at least the entire front surface.
- Feature present? Yes.

0.5

Therefore, claim 1 is not novel over Doc C.

Claim 2

2.1 – The insulation panel of claim 1

- Has all the features of claim 1.

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- Feature present? Yes.

2.2 – wherein the side portions comprise polyurethane foam

- The side portions are formed exclusively of mineral wool (p14, I22 and p14, I27, and as shown in the figure on page 14).
- Polyurethane foam is disclosed in Doc C in a different context (the polyurethane foam does not form integral side portions).
- Feature present? No.

1

Therefore, claim 2 is novel over Doc C.

Claim 3

3.1 – The insulation panel of claim 2

- Has all the features of claim 1. Does not have all the features of claim 2.
- Feature present? No.

3.2 – wherein the sides include 40%-50% polyurethane foam and 50%-60% mineral wool

- The side portions are only made of mineral wool (as shown in annotation of the figure on page 14) – there is no polyurethane foam in the side portions.
- Feature present? No.

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Therefore, claim 3 is novel over Doc C.

Claim 4

4.1 – The insulation panel of claim 2 or 3

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- Has all the features of claim 1. Does not have all the features of claims 2 or 3.
- Feature present? No.

4.2 – wherein the metal foil extends over the side portions

- The annotations of the figure on page 14 show that only the central portion is foil-faced. There is no description of the foil extending over the side portions.
- Feature present? No.

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Therefore, claim.4 is novel over Doc C.

Claim 5

5.1 – The insulation panel of any preceding claim

- Has all the features of claim 1. Does not have all the features of claims 2, 3 or 4.
- Feature present? Yes when dependent on claim 1, no when dependent on claims 2, 3 or 4.

5.2 – where in the panel is more than 10 cm thick

- There is no description of the thickness of the panel.
- Feature present? No.

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Therefore, claim 5 is novel over Doc C.

Claim 6

6.1 – A method of installing the insulation panel of claims 1-5, the method comprising

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- Installation of the panel is described (p14, I26-30).
- Feature present? Yes.

6.2 – cutting the central portion and the side portions to a desired length; and

- The panel is cut before the wool side portions are glued on (p14, I26-27), so the side portions are not cut. As per my construction, both the central panel and the side portions must be cut.
- There is no disclosure that the central panel is cut so that the length of the panel is the same as the height of the studs.
- Feature present? No.

6.3 – installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces

- The panel is pushed into place (p14, I27), and the boards are placed between studs (p14, I5-7).
- The side portions are compressed to the necessary size (p14, I27-28), so side portions change size once the panel is inserted between the studs, which meets my construction.
- Feature present? Yes.

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Therefore, claim 6 is novel over Doc C.

Doc A Prior Art

Claim 1

1.1 – An insulation panel comprising

- Panel of insulation (p4, I16).

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- Used to insulate buildings (p4, l5) and is suitable for insulating different structures (p4, l10-11).
- Feature present? Yes.

1.2 – a rigid central portion; and

- The panel comprises a rigid PIR core (p4, l8-9).
- The panel is rectangular (p4, l8) and is shown in Fig 1 on page 9 to be cuboid, which meets my construction.
- Feature present? Yes.

1.3 – integral deformable side portions on each side of the central portion configured to conform to spaces adjacent the central portion

- No side portions are disclosed.
- The panels are described as being made from rigid PIR which does not flex or conform, so the panel is not deformable (i.e. cannot adopt a range of sizes) as per my construction.
- Feature present? No.

1.4 – wherein the central portion comprises a polyisocyanurate core faced with a metal foil

- The panel has an insulative PIR core which is faced on both sides with a thin metal foil (p4, l8-9).
- Feature present? Yes.

Therefore, claim 1 is novel over the Doc A prior art panel.

Claim 2

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2.1 – The insulation panel of claim 1

- Does not have all the features of claim 1.
- Feature present? No.

2.2 – wherein the side portions comprise polyurethane foam

- Side portions are not disclosed.
- Polyurethane foam is not disclosed.
- Feature present? No.

Therefore, claim 2 is novel over the Doc A prior art panel.

Claim 3

3.1 – The insulation panel of claim 2

- Does not have all the features of claim 1 or claim 2.
- Feature present? No.

3.2 – wherein the sides include 40%-50% polyurethane foam and 50%-60% mineral wool

- Side portions are not disclosed.
- Polyurethane foam is not disclosed.
- Mineral wool is not disclosed.
- Feature present? No.

Therefore, claim 3 is novel over the Doc A prior art panel.

Claim 4

4.1 – The insulation panel of claim 2 or 3

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- Does not have all the features of claim 1, 2 or 3.
- Feature present? No.

4.2 – wherein the metal foil extends over the side portions

- Side portions are not disclosed.
- There is no explicit disclosure as to whether the metal foil which is faced on the PIR core extends further than the PIR core.
- Feature present? No.

Therefore, claim 4 is novel over the Doc A prior art panel.

Claim 5

5.1 – The insulation panel of any preceding claim

- Does not have all the features of claims 1, 2, 3 or 4.
- Feature present? No.

5.2 – where in the panel is more than 10 cm thick

- There is no explicit disclosure of the thickness of the panel. The panel is only disclosed as being of a constant thickness (p4, l8).
- Feature present? No.

Therefore, claim 5 is novel over the Doc A prior art panel.

Claim 6

6.1 – A method of installing the insulation panel of claims 1-5, the method comprising

- p4, l16-17 describe cutting the panel, but a method of installing the panel is not disclosed.

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- Feature present? No.

6.2 – cutting the central portion and the side portions to a desired length; and

- Side portions are not disclosed.
- The panel is cut to an appropriate size (p4, l16) but Fig 1 on page 9 shows that the length of the panels is not the same as the height of the studs (the panels do not extend entirely across the height of the wall), which does not meet my construction.
- Feature present? No.

6.3 – installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces

- The installation of the panel is not explicitly described.
- The panel does not flex or conform (p4, l22), and gaps can be left between the panel and the studs (p4, l26-27).
- Feature present? No.

Therefore, claim 6 is novel over the Doc A prior art panel.

Summary

- Claims 2-6 are novel over Doc C. Claim 1 is not novel over Doc C.
- Claims 1-6 are novel over the Doc A prior art panel.

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Novelty

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INVENTIVE STEP

- The inventiveness of the claims needs to be assessed.
- The effective date of the patent is either the priority date of the patent (when the patent claims priority) or the filing date of the patent (when the patent does not claim priority). Doc A does not claim priority, so the filing date of Doc A is the effective date. Therefore, the effective date of Doc A is 15 July 2022. The effective date is the date from which the prior art is assessed.
- Doc C is relevant for inventive step because it was published before the filing date of Doc A.
- The prior art insulation panel described on page 4, I5-28 of Doc A is also relevant for inventive step because it was known before the filing date of Doc A.
- Use the Windsurfing/Pozzoli test to assess the inventiveness of the claims of Doc A.
- The person skilled in the art (PSA) for claims 1-5 is designer or manufacturer of panels for thermal insulation of buildings. The PSA for claim 6 is a user or installer of thermal insulation panels for walls.
- The common general knowledge (CGK) of the PSA is the adhesive foil tape described on p2, I31-32 because it is described as being standard practice for many years (p2, I31). The PIR panel described on page 4, I5-11 of Doc A is also CGK because PIR is described as being very commonly used (p4, I5).

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Claim 1

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- The inventive concept of claim 1 is the deformable side portions can aid installation of the panel by avoiding the need to cut the insulation to precisely the same width as the space it is being installed into (p5, l3-5).
- The state of the art is Doc C.
- There is no difference between claim 1 and Doc C because claim 1 is not novel over Doc C.
- Doc C discloses an insulation panel which can be used in walls which comprises deformable side panels. Doc C also discloses that the deformable side portions mean that it is easier to fit the insulation panels (p14, l23 and p14, l30). Therefore, it would be obvious for the PSA to use deformable side portions in the insulation panel of claim 1.
- Therefore, claim 1 is not inventive over Doc C.

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Claim 2

- The inventive concept of claim 2 is that polyurethane foam can provide effective insulation when compressed at a range of different compressions (p5, l10-13).
- The state of the art is Doc C.
- The difference between claim 2 and Doc C is that the side portions of the panel in Doc C does not comprise polyurethane foam.
- Polyurethane foam is described in Doc C as expanding foam (p14, l13) which can be used to fill gaps between the panel and the studs (p14, l13-15), so there is motivation for the PSA to use polyurethane foam in the side portions of the panel of claim 2. Therefore, it would be obvious for the PSA to use polyurethane foam in the side portions of the panel of claim 2.

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- Therefore, claim 2 is not inventive over Doc C.

Claim 3

- The inventive concept of claim 3 is that the blend of 40%-50% polyurethane foam and 50%-60% mineral wool can provide over 75% of the insulative performance of PIR even when compressed (p5, l18-20), i.e. the combination of polyurethane foam and mineral wool at these ranges improves the insulative performance of the side portions.
- The state of the art is Doc C.
- The difference between claim 3 and Doc C is that the side portions of Doc C do not comprise polyurethane foam.
- There is no hint in Doc C to combine the mineral wool with polyurethane foam in the side portions to increase the insulative performance of the side portions. Polyurethane foam is mentioned in Doc C but only in the context of an alternative way of preventing air gaps between the central portion and the studs. In addition, the CGK on p2, l31-32 describes improving the insulative performance of foam adjacent to the panel by covering the foam with adhesive tape. Therefore, when combining Doc C with the CGK, the PSA would not be motivated to try improving the insulative performance of the side portions by combining polyurethane foam and mineral wool. Therefore, this choice is not obvious.
- Therefore, claim 3 is inventive over Doc C and the CGK.

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Claim 4

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- The inventive concept of claim 4 is that the foil not being adhered to the side portions prevents distortion or ripping of the foil when the side portions are compressed.
- The state of the art is Doc C.
- The difference between claim 4 and Doc C is that the foil covering the central portion of the panel in Doc C does not extend over the side portions.
- When starting from Doc C and combining with the CGK described on p2, I31-32, the PSA would be motivated to use adhesive foil when covering the side portions. There is no hint in either Doc C or the CGK to not adhere the foil to the side portions to prevent ripping or distortion of the foil when the side portions are compressed. Therefore, it would not be obvious for the PSA to use foil which does not adhere to the side portions.
- Therefore, claim 4 is inventive over Doc C and the CGK.

Claim 5

- The inventive concept of claim 5 is that the panel is suitable for insulating structures which require a panel with an increased thickness, or with a thickness of more than 10 cm.
- The state of the art is Doc C.
- The difference between claim 5 and Doc C is that Doc C does not disclose a panel in which the thickness of the panel is more than 10 cm.
- The choice of the thickness of the panel being more than 10 cm appears to be an arbitrary choice, therefore it would be an obvious choice for the PSA to make. In addition, it is known from the CGK described in Doc A

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that a range of thicknesses are available for insulating different structures, so it would be obvious that the panel could of a thickness of more than 10 cm.

- Therefore, claim 5 is not inventive over the CGK.

Claim 6

- The inventive concept of claim 6 is that the depth of the side portions does not appreciably increase when compressed, which avoids the need to trim away any material after insulation (p7, l27-29).
- The state of the art is Doc C.
- The difference between claim 6 and Doc C is that Doc C requires the side portions to be trimmed after the panel is installed (p14, l28-29).
- Doc C describes the wool as bulging out front (p14, l28-29), and the polyurethane foam is described as expanding out of the gaps (p14, l16-17). Therefore, when using the teaching of Doc C the PSA would not be motivated to use side portions comprising mineral wool and polyurethane foam when looking to solve the problem of providing side portions which do not require trimming after installation of the panel.
- Therefore, claim 6 is inventive over Doc C.

I. step

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Summary

- Claims 3, 4 and 6 are inventive.
- Claims 1, 2 and 5 are not inventive.

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SUFFICIENCY

- There appears to be a sufficiency issue for claim 2, because it is described on p5, l12-17 that the polyurethane foam must be in a range of 40%-50% otherwise the insulative properties become unacceptably poor when values below this are used, or the compressibility of the side portions is too low if values higher than this are used.
- However, this range is not disclosed in claim 2.
- There are also minor sufficiency issues for claims 2, 3, 5 relating to antecedence as identified above.
- There are no other sufficiency issues.

MARKS AWARDED: 0

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AMENDMENTS

- Should amend claims 2, 3 and 5 to correct the antecedence issues identified above.
- Should amend claim 2 to incorporate the range of 40%-50%. There is basis for this amendment on p5, l13.
- Claims 1, 2 and 6 are currently infringed but claim 1 is not novel and claims 1 and 2 are not inventive. Claim 6 is novel and inventive, so we do not need to amend this claim.
- There do not appear to be any amendments which will make claim 1 novel and inventive but will still be infringed. However, could amend claim 1 to incorporate the feature of claim 3 so that claim 1 is then novel and inventive.

MARKS AWARDED: 0

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ADVICE

- Claims 1, 2 and 6 are currently infringed.
- Claim 6 is currently novel and inventive, however the client is not directly infringing claim 6 because they are only manufacturing and selling/offering for sale the EdgeFlex. The client is not directly using the method of claim 6.
- However, the client may be a contributory infringer of claim 6 because they are offering to supply the EdgeFlex on their website.
- Should check if the client is offering the EdgeFlex for sale in the UK.
- If so, the client will be a contributory infringer because they are offering to supply in the UK to unauthorised parties the means relating to an essential element of the invention (the EdgeFlex is an essential element of the invention), and it would be obvious that the means are suitable for and intended for putting the invention into effect in the UK.
- The EdgeFlex is not a staple commercial product.
- The client is also currently infringing claims 1 and 2 of Doc A by manufacturing and selling the EdgeFlex in the UK.
- The hardware shops are also infringing claims 1 and 2 of Doc A by selling the EdgeFlex in the UK.
- However claims 1 and 2 are currently not valid so ScrewStore cannot enforce these claims currently. ScrewStore will either need to amend the claims before bringing infringement proceedings or bring infringement proceedings with an application to amend.

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- ScrewStore can bring infringement proceedings against the client and the hardware stores immediately for using the method of claim 6.
- Therefore, the patent is currently infringed and invalid.
- Should not enforce an invalid patent, so ScrewStore will need to amend the patent so that the patent is valid.
- Can either amend the patent before bringing infringement proceedings or bring infringement proceedings with an application to amend.
- Should check whether the renewal fees have been paid, and therefore that Doc A is in force because a patent can only be enforced (i.e. can only bring infringement proceedings if the patent is granted and in force).
- The renewal fee for this year (2025) was due on 31 July 2025. If the renewal fee hasn't been paid by this deadline, we are still within the grace period for late payment of this renewal fee for a surcharge (the grace period expires on 31 January 2026).
- The private end users will not be infringing Doc A because they will have the private and non-commercial use exemption. 1
- The email from ScrewStore appears to contain a threat because a reasonable person would know that a patent exists and that ScrewStore intends to bring infringement proceedings. 1
- The client is aggrieved because the infringement proceedings will result in the client's business being affected detrimentally by hardware shops taking their business elsewhere.

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- It is not a permitted purpose to request that commercial activities relating to the product are ceased (i.e. requesting to cease selling the EdgeFlex product). Therefore, this threat is actionable.
- Therefore, the client can bring a groundless threats action against ScrewStore.
- Remedies for a groundless threats action include damages, an injunction to prevent further threats, and a declaration of unjustified threat.
- If ScrewStore does bring infringement proceedings, the remedies for infringement are a final injunction, damages or account of profits (mutually exclusive), delivery up or destruction of the product, declaration of validity and infringement (and costs).
- ScrewStore is unlikely to be granted an interim injunction because the client is already manufacturing and selling the EdgeFlex product in the UK.
- ScrewStore is also unlikely to be granted an interim injunction against the hardware shops because they are already selling the EdgeFlex product in the UK.
- Client should bring revocation proceedings for Doc A, as this could force ScrewStore to amend the patent which would result in the client no longer infringing claims 1 and 2 of the patent.

MARKS AWARDED: 2

ADVICE

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