

FD4 Infringement and Validity

FINAL Mark Scheme 2025

This mark scheme is a guideline. Examiners may give marks for answers that do not follow this exactly but still address the necessary points

Construction

To obtain all available marks, candidates must come to clear conclusions on the boundaries of each claim integer. These must be justified, and that justification based on the content of the patent. The table below identifies points of construction that are expected to be addressed. However, these are not prescriptive and credit may be awarded for alternative conclusions if they are well-justified.

Claim 1

An insulation panel comprising:	<u>thermal</u> insulation - P4L2-4 What is a panel? For fitting between structures to insulate a wall, ceiling or floor. P4L2-4, P5L31-33.	2
a rigid central portion; and	Rigid = does not flex or conform to obstacles around it, fixed size P4L22-23. Rectangular is one possible shape P6L1-2 Does central portion need to be a more effective insulator and/or be physically larger than the side portions, due to P5L7-9, P7L4-6?	2
integral deformable side portions on each side of the central portion configured to conform to spaces adjacent the central portion;	Integral – covers SPs adhered to the panel prior to installation P6L12-14. Could it cover SPs added later? Must be deformable at least during installation – P5L1-3. Can they be rigid once installed?	4

	Side appears to refer to the thinnest dimension of the panel, not the large face, as purpose is to conform width not depth – P5L1-9. Do the side portions need to provide thermal insulation? P5L11-14 “Each side”- Figures and P6L12-14 suggest that this doesn’t need to be <u>all</u> sides, just two portions on opposite sides of the central panel Conform = can adopt a range of sizes to fill in gaps P5L1-3. Includes compressing (cl. 6), but no reason to limit scope to this. P7L24-27 suggests that there are minimum and maximum limits on the sizes attainable. Can the side portions bulge outwards when conforming? P7L27-29 says that their thickness does not increase when compressed.	
wherein the central portion comprises a polyisocyanurate core faced with a metal foil.	PIR core appears to relate to a conventional panel, P4L7-10 foil on both faces or only one? P5L21-22 says one or both sides, P6L18-20 says entirety of both. metal includes Al - P5L21-22	2

Claim 2

The insulation panel of claim 1,		
wherein the side portions comprise polyurethane foam.	Comprise – the side portions can include other ingredients aside from PU foam. P5L17-18 discloses the remainder can be a filler. Is there an upper limit on amount of PU foam – i.e. can the SPs <i>consist</i> of PU foam? P5L11-17 suggests that needs to be 40-50% or it doesn’t work.	2

	Is the form of the foam important? P6L14-15 discloses small beads	
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Claim 3

The insulation panel of claim 2,		
wherein the sides include 40-50% polyurethane foam and 50-60% mineral wool	Sides = side portions (appears to be the only technically-sensible meaning) % by weight P5L13-14 (seems to be the only sensible way to construe because the volume of the SPs changes) The description suggests that the components must be blended to gain the desired function (P5L18). Can the sides have discrete PU foam and mineral wool parts? Description suggests that no other ingredients are present, i.e. only PUF and MW (MW% = 100%-PUF%). P5L14-17.	3

Claim 4

The insulation panel of claim 2 or 3,		
wherein the metal foil extends over the side portions.	It seems this be an integral extension of the central foil facing, or can it be separate? The fact that the foil might not be adhered to the side portions might suggest that it can't be separate. P5L22-26, P6L20-22	1

Claim 5

The insulation panel of any preceding claim		
wherein the panel is more than 10 cm thick.	Does this include 10cm (100 mm)? P5L29 says that cutting difficulty changes “above <u>about</u> 10cm” , which might suggest that some leniency in this value was intended, but the word “about” is notably absent from the claim which may suggest the alternative.	1

Claim 6

A method of installing the insulation panel of claims 1-5, the method comprising:	Does panel need to have all of the features of claims 1-5, or should this be read as “ <u>any</u> of claims 1-5”? (reward justified decision here in addition to overall dependency mark) Covers installing in a wooden stud wall but not limited to this, could also be installed in floors, ceilings etc P5L31-33, P6L30-31	2
cutting the central portion and the side portions to a desired length; and	Covers cutting across short edge of a rectangular panel, with a saw P6L1-5 Do the central portion and the side portions need to be cut together? P6L3-5 suggests that the “entire panel” is cut in a single process Length is matched to the height of the studs, P7L7.	1
installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces.	Surfaces may be vertical studs of stud wall (but not limited to this) P6L27-30 Conforming may be done as panel pushed into place or in a subsequent expansion step P7L8-23	2

Dependencies	candidate correctly and unambiguously identifies all possible combinations of claim features	1
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Construction Total = 23

Infringement

To obtain marks, candidates must apply their chosen construction and come to clear conclusions on whether the claim features, as construed, are present in the EdgeFlex product.

To obtain all available marks, candidates must demonstrate that they have considered the EdgeFlex product as sold (i.e. without foam or foil), and when used by an end user.

Claim 1

An insulation panel comprising:	P12L3-4 – thermal insulation. For use in walls P12L14.	1
a rigid central portion; and	“standard PIR panel” P12L5. P4L5-9 indicates that these are rigid.	1
integral deformable side portions on each side of the central portion configured to conform to spaces adjacent the central portion;	fillable pockets They can expand to fill space adjacent P12L9, P13L10-11. When used with PU foam as instructed, the foam will set hard, but the SPs are deformable before and during installation P13L15, P13L10-12	3
wherein the central portion comprises a polyisocyanurate core faced with a metal foil.	“Standard foil-faced PIR panel” P12L5. No specific disclosure of metal, but P4L7-10 suggests standard panels use metal foil.	1

Claim 2

The insulation panel of claim 1,		
wherein the side portions comprise polyurethane foam.	N as sold – pockets are empty	2

	Potentially present when used by end user as directed (ambiguous if construed to have upper limit on PU% as weight of plastic membrane not known)	
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Claim 3

The insulation panel of claim 2,		
wherein the sides include 40%-50% polyurethane foam and 50-60% mineral wool	No mention of mineral wool.	1

Claim 4

The insulation panel of claim 2 or 3,		
wherein the metal foil extends over the side portions	N as sold But, in use, metal tape is added (P13L15-17). Does this conform with candidate's construction?	2

Claim 5

The insulation panel of any preceding claim		
wherein the panel is more than 10 cm thick.	If construction does not include 100 mm, not unambiguously present	1

	P12L19-20 suggest range of thicknesses available including 50 and 100mm, if thicker panels are available infringement would be limited to only those.	
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Claim 6

A method of installing the insulation panel of claims 1-5,	PIR panel is installed in stud wall P12L15 Performed by an end user, not by BIUK If construed to require all the panel to have all of the features of claims 1-5, infringement seems unlikely (no mineral wool, no foil on side portions until after panel installed)	3
cutting the central portion and the side portions to a desired length; and	P13L1-3	1
installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces.	Panel is installed between vertical studs P13L4-5 Side portions are expanded to conform once panel in place P13L10-12	2

Dependencies/Conclusions	Dependencies correctly assessed. Conclusions consistent with findings on individual claim features	1
Equivalents/Immaterial variants	Candidate applies the Actavis questions accurately to one or more claims for which no infringement on normal interpretation is found. Conclusions must be justified.	2
Identification of directly infringing acts/actors	BuildIt UK, hardware shops, individuals (DIY and pros) make/sell/use/keep the panel. Individuals (DIY and pros) make/use a panel by adding foam/foil Individuals (DIY and pros) appear to use/offer for use a method of installation relevant to claim 6 (subject to finding on dependency) DIY customers likely have private/non-commercial defence	3
Consideration of indirect infringement:	The pockets of the EdgeFlex are empty in its sold state so BUIK and hardware shops unlikely to infringe directly cl. 2 and cl. 4, but their supplying may infringe these claims indirectly if panel is means essential to the invention (dependent on construction but seem likely). A comprehensive analysis of this point is not needed to obtain the available mark.	1

Infringement Total = 25

Novelty

To obtain all available marks, candidates must fully apply their chosen construction and come to clear conclusions on whether the claim features, as construed, are disclosed in the identified prior art. Page and line references that are likely to be relevant to each claim feature are given below, but these are not prescriptive and credit may be awarded for alternative conclusions and reasoning consistent with the candidate's construction.

Date for assessing novelty	filing date because there is no priority claim	1
Prior art embodiments	Doc C (Bob the brickie's solution) – combination of a conventional PIR panel and foam from can (P14L10-17) Doc C (Fatima's solution)	1

Claim 1

	Doc C (Bob the brickie's solution)		Doc C (Fatima's Solution)	
An insulation panel comprising:	P4L5-7, 12-13 / P14L10-17	1	Fatima refers to "PIR insulation boards" – are these panels? PIR boards are thermal insulation	1
a rigid central portion; and	P4L5-7 / P14L5		PIR boards are rigid P14L5	
integral deformable side portions on each side of the central portion configured to conform to spaces adjacent the central portion;	Conventional PIR boards don't come with integral side portions. Does subsequently adding foam from a can form integral deformable side portions?	1	mineral wool glued onto opposite sides, these deform to fill gaps P14L27-30	1

wherein the central portion comprises a polyisocyanurate core faced with a metal foil.	P4L7-10	0.5	foil faced PIR – see Figure in Doc C	0.5
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Claim 2

The insulation panel of claim 1,				
wherein the side portions comprise polyurethane foam.	Possibly present if foam added from a can forms a SP	1	N - Not in Fatima's product	1

Claim 3

The insulation panel of claim 2,				
wherein the side portions include 40-50% polyurethane foam and 50-60% mineral wool	Not present	0.5	Not present	0.5

Claim 4

The insulation panel of claim 2 or 3,				
wherein the metal foil extends over the side portions	Not present	0.5	N – foil only disclosed on centre	1

Claim 5

The insulation panel of any preceding claim				
wherein the panel is more than 10 cm thick.	Not disclosed – a range of thicknesses is disclosed (P4L10-11) but this isn't unambiguous disclosure of >10cm	1	N – Fatima doesn't mention the thicknesses of her panels/boards	0.5

Claim 6

A method of installing the insulation panel of claims 1-5, the method comprising:	If construed to require all C1-5, clearly not present. In any case, is this method carried out if the panel only gains SPs in the final gap-filling step?	1	Y – used for insulating a stud wall P14L5 If construed to require all C1-5, clearly not present.	1
cutting the central portion and the side portions to a desired length; and	No explicit mention of cutting PIR to length, but could argue that implicit (e.g. P4L16-17). No cutting of SPs before installation (even if added foam forms SP)	1	No explicit mention of cutting length, but could argue that implicit. Mineral wool appears to be added after cutting (perhaps after being cut separately?).	1
installing the insulation panel between two surfaces by conforming the side portions to the space between the central portion and the two surfaces.	Possibly present	1	Y – panel pushed into place and wool compresses to fill gaps P14L27-30	1

Dependencies/Conclusions	Dependencies correctly assessed. Conclusions consistent with findings on individual claim features	1
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Novelty Total = 20

Inventive Step

Marks should be awarded for reasoned consideration of each of the steps in the *Pozzoli* approach to assessing inventive step. The expected findings below are not prescriptive and marks may still be awarded if the candidate has provided well-reasoned points. In any case, the inventive concepts and subsequent analysis must be consistent with the candidate's construction. **Candidates receive marks for a reasoned inventive concept applying the *Pozzoli* approach, the concepts presented below are illustrative examples.**

Date for assessing inventive step:	filing date	0.5
Person skilled in the art	for claims 1-5 = a designer of thermal insulation panels for insulating building walls, ceilings and floors P4L2-4	1
	for claim 6 = an installer of thermal insulation panels (potentially as part of a team with the designer)	0.5
CGK	PIR boards P4L5-20 ("very commonly used"), Filling gaps with PU foam P14L10-17 ("classic method", 30 years) applying foil tape to foam P2L30-33 ("standard practice for many years")	2
State of the Art	For all claims: Fatima's solution (Doc C) with some justification e.g. presence of deformable side portions	1

Claim 1

Inventive Concept	A rigid insulation panel that includes integral deformable side portions to facilitate installation P5L3-5.	1
State of the Art	Fatima's Solution	
Difference	None	1
Obvious?	Concept seems to be known from Doc C	

Claim 2

Inventive Concept	Use polyurethane as part of deformable side portions of a rigid insulation panel	1
State of the Art	Fatima's Solution	
Difference	no polyurethane in the SPs	0.5
Obvious?	Doc C notes that not all gaps filled, and PU foam is known for filling in gaps. However, Doc C teaches away from using PU foam: "so much easier than foam".	1.5

Claim 3

Inventive Concept	Using specific composition of PU and MW for side portions to give good insulation capabilities without limiting deformability P5L11-14	1
State of the Art	Fatima's Solution	
Difference	no disclosure of PU+MW (in any composition)	0.5
Obvious?	Unlikely – Even if use of PU foam was obvious, no reason to use in specific ratio w/mineral wool	1.5

Claim 4

Inventive Concept	extend foil over the side portions to increase amount of reflective insulation P5L22-24.	1
State of the Art	Fatima's Solution	
Difference	no foil extension	0.5
Obvious	Depends on construction (e.g. if foil extension must be contiguous), but could be obvious given that addition of foil tape is standard practice c.f. P2L30-33.	1.5

Claim 5

Inventive Concept	add deformable side portions to a particularly thick rigid insulation panel to reduce the amount of cutting and to facilitate installation P5L27-30	1
State of the Art	Fatima's Solution	
Difference	no mention of panel thickness	0.5
Obvious	PIR available in range of thicknesses P4L10-11, seems obvious to pick one that suits your wall	1.5

Claim 6

Inventive Concept	Depends on construction. Speed up installation of insulation by cutting rigid PIR and integral deformable side portions together and then conforming SPs to fill gaps on installation. P7L12-14	1
State of the Art	Fatima's Solution	
Difference	depends on construction, no single cutting process disclosed	1
Obvious	seems like minor change to Fatima's Solution to glue then cut	

Inventive step total = 21

Sufficiency

P5L11-17 suggests that 40-50% polyurethane is needed for the side portions to work.	1
Reasoned discussion and conclusion as to whether this is an issue of sufficiency or part of routine experimentation to find a working range.	1

Sufficiency total = 2

Amendment

Candidate identifies an amendment that ScrewStore could make to improve their validity position (sufficiency and/or novelty and inventiveness)	1
Proposed amendment would capture the infringement	1

Claim 6 could be limited to positioning the panel in place first and then allowing the side portions to conform to the surrounding space based on P7L16-19. This isn't suggested in Doc C, is arguably inventive and might capture some infringing activities too.

Could amend claim 1 to specify that the depth of the SPs does not increase when conforming, based on P7L24-29 (i.e. no bulging out) – this appears to be a feature of the EdgeFlex.

Amendment total = 2

Advice

Award up to seven marks for relevant points of advice.

Threats	The email from SS is threat of bringing proceedings under S70 The email refers to secondary acts (selling), but made to primary actor (BUK) so not actionable If SS does contact re-sellers those communications could be actionable threats	3
Enforcement	Patent is in force as it is not old enough for any renewals to be due How might SS take action? HC/IPEC. They could seek a preliminary injunction, but Edgeflex has already been on sale for 9 months so seems unlikely to be granted. Client is now aware of patent, so no innocent infringement defence available	2
Actions to improve situation	ScrewStore's aggressive approach suggests that they are unlikely to be immediately amenable to granting BUK a licence, especially as both companies are targeting the same DIY market (If patent found to be invalid) could proactively seek revocation via UKIPO or courts Revocation action may be used as leverage in licencing negotiations	2

Advice Total = 7