Patents Act 1977 **Opinion Number** **15/21**

OPINION UNDER SECTION 74A

Patent	EP(UK) 2365150 B3
Proprietor(s)	KFIP Limited
Exclusive Licensee	
Requester	KFIP Limited (represented by Clyde & Co LLP)
Observer(s)	Concrete Floor Products Limited (represented by Lewis Silkin LLP)
Date Opinion issued	28 October 2021

The request

1. The comptroller has been requested to issue an opinion as to the validity and infringement of European Patent (UK) 2365150 B3 (the patent).

2. Regarding validity, three prior art documents are referred to in the request in relation to the novelty and inventiveness of the patent claims:

   D1 – GB 1529978 A (TOFFOLO) published on 25 October 1978

   D2 – EP 0360682 A1 (TOFFOLO) published on 28 March 1990

   D3 – US 2007/256380 A1 (TOFFOLO) published on 8 November 2007

3. Regarding infringement, a range of documentation has been provided relating to the "Tec-Form" product range (the product) of Concrete Floor Products Limited (the observer).

Observations

4. Observations were received on 8 September 2021 and observations in reply were received on 21 September 2021.

Matters to be considered by this Opinion

5. Section 74A of the Patents Act provides for the procedure where the Comptroller can issue, on request, non-binding opinions on questions of validity relating to novelty and inventive step, and on questions of infringement. Section 74A(3) of the Patents Act states:

The comptroller shall issue an opinion if requested to do so under subsection (1) above, but shall not do so –

(a) in such circumstances as may be prescribed, or

(b) if for any reason he considers it inappropriate in all the circumstances to do so.

6. The observer has cited Section 74A(3)(b) above and submitted that the comptroller should decline to express an opinion as to validity of the patent on grounds of procedural fairness since the request has been made by the patent proprietor themselves. However, Section 74A(1) of the Patents Act states:

The proprietor of a patent or any other person may request the comptroller to issue an opinion on a prescribed matter in relation to the patent.

7. The matters on which an opinion can be requested are set out in Rule 93(6), which states (in part):

The prescribed matters for the purposes of section 74A(1) are as follows—

(a) whether a particular act constitutes, or (if done) would constitute, an infringement of the patent;

(b) whether, or to what extent, an invention for which the patent has been granted is not a patentable invention;

8. Hence, it is clearly stated in the Patents Act and Rules that the proprietor of a patent may legitimately request an opinion as to the validity (or not) of their own patent.

9. Rule 96(1) of the Patents Rules provides that:

If the request has not been refused or withdrawn, any person may, before the end of the relevant period, file observations on any issue raised by the request.

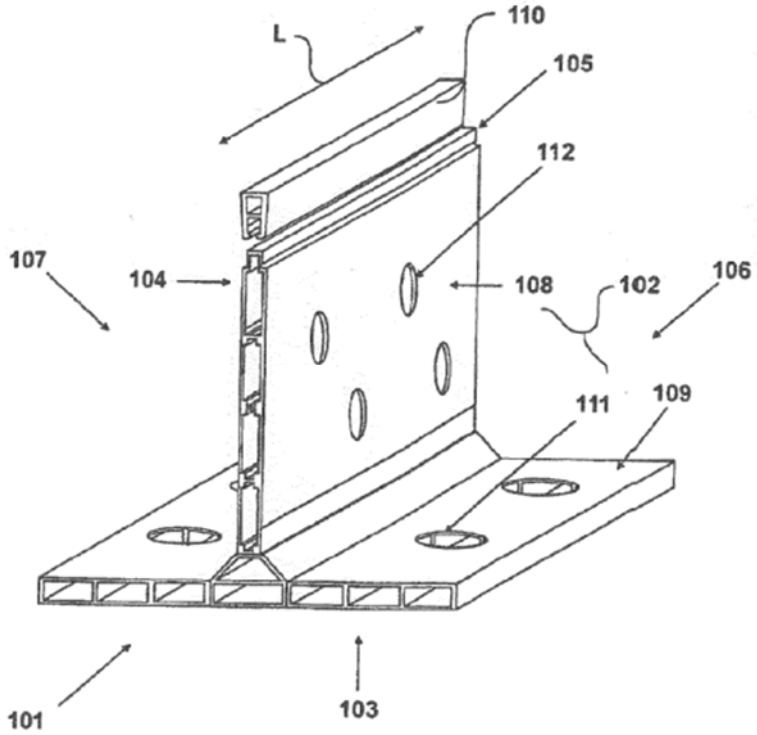
10. The observer has also indicated that the proprietor's request regarding validity is based on self-selected prior art and that, given Rule 96(1) above, the observer is unable to raise any other prior art on which it wishes to rely or other arguments which it wishes to advance. Of course, if the observer wishes to explore validity issues not raised by the requester then they may file a separate request.

The patent

11. The patent is entitled "Lost Shuttering" and was filed on 3 March 2010 with no earlier declaration of priority. The patent was granted on 24 April 2013 and remains in force in the UK.

12. The patent concerns sacrificial shuttering formwork that provides support for the edges of a bed of poured concrete. This shuttering formwork is sacrificial since it is left in place after the concrete has hardened. A problem with such sacrificial shuttering

formwork is that it must withstand the expansion forces of the concrete as it cures. The shuttering of the Patent is illustrated below and provides an elongate, T-shaped shuttering formwork 101. The formwork 101 has compression portions 108, 109 on the side faces of the upright part and the upper surface of the base, a strip element 110 that is releasably attachable to the upper end of the upright part, and apertures 111 through the base portion for receiving mortar material.



13. On 13 March 2020, the requester filed a Limitation Request with the European Patent Office to amend the claims as granted. The requester indicates that this Limitation Request was filed to further distinguish claim 1 of the patent from the prior art documents D1, D2 and D3, none of which were raised during the examination of the application by the EPO. The Limitation Request was granted without objection by EPO decision of 20 August 2020 and the amended B3 specification was published on 16 September 2020. Claim 1 of the patent now reads (with integers labelled 1-9 in the request):

1. A shuttering formwork (101) comprising:

2. an elongate body member (102) comprising a base portion (103) and a compression portion (104) extending from said base portion (103) substantially perpendicularly thereto and

3. presenting a free end (105) that extends in the length direction (L) of said elongate body member (102),

4. said elongate body member (102) comprising a first side (106) and a second side (107), each comprising a compression portion side face (108) and a base portion upper face (109); and

5. a strip element (110) releasably attachable to said free end (105) of said

compression portion (104);

6. said base portion (103), said compression portion (104) and said strip element (110) each comprise a plastics material,

characterised in that:

7. said base portion (103), said compression portion (104) and said strip element (110) each comprise a hollow structure, and

8. the compression portion side face (108) and the base portion upper face (109) of at least one side (106) of said first and second sides (106, 107) of said elongate body member (102) each being a resiliently deformable surface,

9. wherein said base portion (102) defines a plurality of base apertures (111) therethrough on each of said first side and said second side (106, 107) of said elongate body member (102), for receiving mortar material.

Claim construction

14. Before I can determine an opinion as to the validity and infringement of the patent, I must first construe the claims. This means interpreting the claims in light of the description and drawings as instructed by section 125(1) of the Patents Act:

> *For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.*

15. I must interpret the claims in context through the eyes of the person skilled in the art. Ultimately, the question is what the person skilled in the art would have understood the patentee to be using the language of the claims to mean. This approach has been confirmed in the recent decisions of the High Court in *Mylan v Yeda*[1] and the Court of Appeal in *Actavis v ICOS*[2].

16. The request provides details regarding the skilled addressee of the patent, ranging from concrete placers and finishers to qualified civil engineers and architects. The request suggests that, for some projects, the concrete placers and finishers will decide on an appropriate shuttering system whilst on other projects, the engineer or architect will specify the type of shuttering to be used. The common general knowledge of these skilled addressees would include knowledge of conventional shuttering, which may include strips of wood or metal that are temporarily placed at the boundary of a concrete slab prior to pouring or sacrificial shuttering made of an extruded plastic such as PVC. Whether the shuttering is temporary or sacrificial, the skilled addressee would understand the need for it to be firmly fixed in place so that it does not shift in position while the concrete is poured and it must be able to withstand the expansion and contraction of the concrete as it sets. The observer has not put forward any

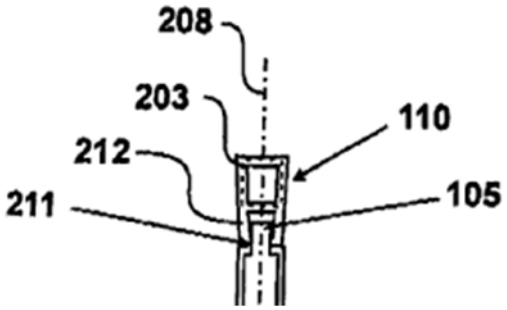
1 *Generics UK Ltd (t/a Mylan) v Yeda Research and Dev. Co. Ltd & Anor [2017] EWHC 2629 (Pat)*
2 *Actavis Group & Ors v ICOS & Eli Lilly & Co. [2017] EWCA Civ 1671*

contrary remarks regarding the skilled person or their common general knowledge, so I am happy to use the requester's definition.

17. The request includes some definitions of the terms "shuttering" and "formwork" (as outlined above), which indicate that these terms are synonymous. Additionally, the "for" in integer 9 of claim 1 is construed as meaning "suitable for".

18. Other terms defined in claim 1 that warrant consideration, particularly in relation to infringement below, are (i) "*a free end (105)*" of the "*compression portion (104)*" (integer 3); (ii) a "*strip element (110)… [comprising] a hollow structure*" (integer 7); and (iii) a "*compression portion side face (108)… being a resiliently deformable surface*" (integer 8).

19. Firstly, the expression "*a free end*" of the "*compression portion (104)*" is defined in claim 1 as extending "*in the length direction (L) of said elongate body member (102)*" and to which "*a strip element (110)*" is "*releasably attachable*". In addition, paragraph 0020 of the patent provides an "illustrated example" in which "the strip element 110 is securable to the free end 105 of the compression portion 104 by a friction fit… the upper edge of the free end 105 of the compression portion 104 is narrowed to provide a pair of shoulders, such as shoulder 211, upon which a pair of legs, such as leg 212, of the strip element 110 may sit, such that the strip element 110 straddles the free end 105 of the compression portion 104." Therefore, I believe that a skilled person would understand the "*free end*" of the "*compression portion (104)*" to mean a freely accessible extremity to which the "*strip element*" is securable and releasable.



20. Secondly, the expression "*a hollow structure*" is defined in claim 1 in relation to each of the "*base portion (103)"*, "*compression portion (104)*" and the "*strip element (110)*". Additionally, paragraph 0015 of the patent presents "a preferred example" in which, "the hollow structure of each of the base portion 103, the compression portion 104 and the strip element 110 each have a cross-section that comprises at least one substantially rectangular shape… The hollow structures of the base portion 103, the compression portion 104 and the strip element 110 are provided by first and second spaced apart walls that are connected by flutes or cross-pieces. The first and second walls may be substantially parallel to each other or may be slightly angled towards or away from each other. It is to be appreciated that any suitable type of hollow structure may be used for the base portion and the compression portion at least of the shuttering formwork as appropriate." Paragraph 0016 of the patent outlines the advantages of using "a hollow plastics structure", namely "it serves to reduce the overall weight of the shuttering formwork. This conveniently facilitates manual handling and transportation." Finally, paragraph 0018 of the patent states that "it is also to be appreciated that other

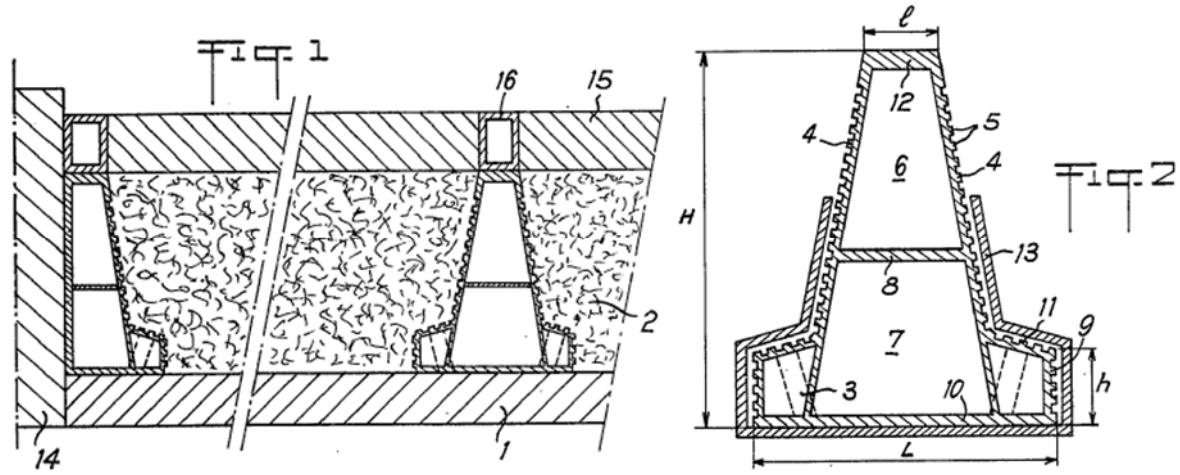
hollow structures may be suitable." Therefore, I believe that a skilled person would understand the "*hollow structure*" of the "*strip element (110)*" to require interconnected first and second spaced apart walls, and a reduced weight (in comparison to a solid structure of the same material).

21. Thirdly, the expression "*resiliently deformable surface*" is defined in claim 1 in relation to both a "*compression portion side face (108)*" and a "*base portion upper face (109)*". In addition, paragraph 0016 of the patent states that "the resiliently deformable surface of the compression portion side face 108 allows for expansion of the poured concrete during setting. In this way, the shuttering formwork 101 has an integral compression joint. The resiliently reformable surface of the base portion upper face 109 advantageously increases the stability of the shuttering formwork 101 when in use." And, paragraph 0021 of the patent states that "the hollow resiliently deformable surfaces of at least one side of the elongate body member enable it to accommodate expansion of the concrete during the curing process and function to hold the elongate body member in position during this same process. The shuttering formwork provides an integral expansion joint." Therefore, I believe that a skilled person would understand the "*resiliently deformable surface*" of the "*compression portion side face (108)*" to mean a surface that can deform and then reform in response to varying compressive force.

Validity – novelty and inventive step

22. The requester has outlined a comparison between the integers of claim 1 of the patent and the teachings of prior art documents D1 to D3, arguing that the patent is both novel and inventive over this prior art. The observer has not presented any arguments contrary to this view.

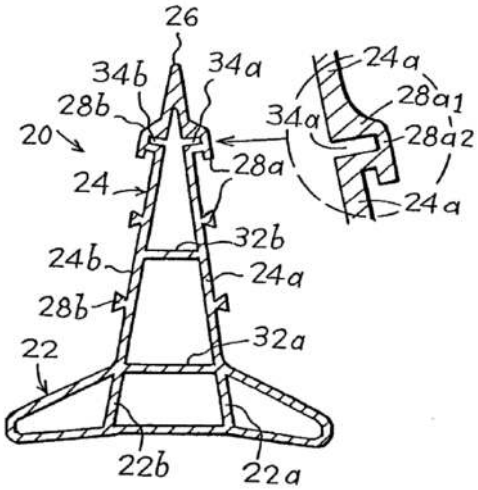
23. The requester identifies document D1 as the closest prior art and its shuttering formwork is illustrated in figures 1 and 2 below.



24. Notably, the side walls 4 are inclined to the vertical at an angle of about 10^{O} to 15^{O} (conversely, integer 2 of claim 1 includes "a compression portion (104) extending from said base portion (103) *substantially perpendicularly* thereto"). The hollow rectangular rod 16 is adhesively bonded to the top wall, whereas integer 5 of claim 1 requires a "strip element (110) *releasably attachable* to said free end (105) of said compression

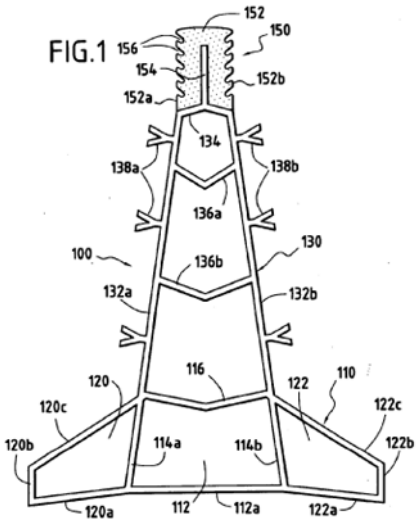
portion (104)". In contrast to the side walls 4, which are described as being flexible, the inclined portion 11 does not meet the requirements of integer 8 of claim 1, namely "the base portion upper face (109) of at least one side (106)… being a ***resiliently deformable surface***". And, finally, the formwork is fixed to a surface, for example by means of pins or bolts inserted through apertures 3 in the base rather than "a plurality of base apertures (111)… for ***receiving mortar material***" (integer 9 of claim 1). Hence, I am of the opinion that claim 1 of the patent is novel over D1.

25. Document D2 is a later application by the same applicant as D1. The disclosed shuttering is illustrated in the figure below.



26. Once again, there are integers of claim 1 that are missing from the disclosure of D2, namely the "***strip element***" outlined in integer 5 (D2 does not even disclose anything similar to the rectangular rod 16 of D1), "the base portion upper face… being a ***resiliently deformable surface***" as outlined in integer 8 (similar to D1, the side walls 24a, 24b are said to deform, but no such disclosure is made for the base 22) and "a ***plurality of base apertures… for receiving mortar material***" outlined in integer 9. Therefore, I am of the opinion that claim 1 is novel over D2.

27. Document D3, also by the same applicant, discloses shuttering illustrated in its figure 1 below.



28. The shuttering taught by D3 is similar to that in D1 and D2. Whilst D3 does disclose a strip 152 of flexible material, it is clear that this strip is not intended to be "***releasably attachable***" as required by integer 5 of claim 1 of the patent (e.g. paragraph 0040 of D3 describes the fluting 156 of the strip 152 as "presenting a profile… for bonding with the concrete" and paragraph 0042 describes the strip 152 as being "bonded to the remainder of the joint"). Again, the top walls 120c, 122c of the base portion 110 are not disclosed as being "***resiliently deformable***" as required by integer 8 of claim 1 and there are no "***base apertures… for receiving mortar material***" as required by integer 9. Therefore, it is my opinion that claim 1 is novel over D3.

29. To determine whether or not an invention defined in a particular claim is inventive over the prior art, I will rely on the principles established in *Pozzoli SPA v BDMO SA [2007] EWCA Civ 588*[3], in which the well-known *Windsurfing*[4] steps were reformulated:

> *(1)(a) Identify the notional "person skilled in the art";*
>
> *(1)(b) Identify the relevant common general knowledge of that person;*
>
> *(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;*
>
> *(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;*
>
> *(4) Viewed without any knowledge of the alleged invention as claimed, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.*

30. Steps (1)(a) and (1)(b) have already been performed above in the section relating to Claim Construction.

31. Performing step (2), the inventive concept of claim 1 is identified as an elongate shuttering formwork having a hollow compression portion extending perpendicularly from a hollow base portion, a side face of the compression portion and an upper surface of the base portion being resiliently deformable surfaces, a hollow strip element that is releasably attachable to a free end of the compression portion, and apertures through the base portion for receiving mortar material.

32. Step (3) requires identification of the differences between the matter cited as forming part of the "state of the art", in this case documents D1, D2 and D3, and the inventive concept identified in step (2). As outlined above in respect to novelty, the differences that are common to each of these documents are identified as (i) the compression portion extending ***perpendicularly*** from the base portion; (ii) the upper surface of the base portion being ***resiliently deformable***; (iii) the strip element being ***releasably attachable*** to a free end of the compression portion; and (iv) the apertures through the base portion for ***receiving mortar material***.

33. The requester accepts that making the compression portion ***substantially perpendicular*** to the base portion would be an obvious modification for the person

3 Pozzoli SPA v BDMO SA [2007] EWCA Civ 588
4 *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd,* [1985] RPC 59

skilled in the art, particularly given their common general knowledge of conventional shuttering. I agree that difference (i) would have been obvious to the skilled person.

34. The prior art does disclose *resiliently deformable* surfaces – e.g. the side walls 4 in D1 are flexible to absorb deformation in the concrete slab material (e.g. page 2 lines 83 to 85). However, there is no explicit suggestion that the inclined portion 11, which is comparable to the upper surface of the base portion of the patent, is flexible. Similarly, D2 discloses the elastic deformation capacity of side walls 24a, 24b, especially at their upper part where weakened areas 34a, 34b are formed. But, again, there is no explicit suggestion that an upper surface of base 22 is elastically deformable. And, D3 discloses the walls 132a, 132b following the contraction and expansion movement of the concrete (e.g. paragraph 0046), but no such disclosure exists for the top walls 120c, 122c of the base portion. In each document, lateral forces or movement of the concrete is presented as the reason for designing flexibility or elasticity into the side walls of the shuttering. The requester has argued that a skilled person would not see any need to extend that flexibility or elasticity to the upper surface of the base portions since these surfaces are not subjected to the same lateral movement.

35. However, I am not convinced by this argumentation. In document D1, there is a clear indication that both the top wall 12 and the bottom wall 10 are made rigid, for example by greater thickness (see page 2 lines 36 to 46 and page 2 lines 106 to 113 of D1). However, the same is not said about the inclined portion 11 and so a skilled person might reasonably conclude that this part could be flexible. Furthermore, in use, it would seem reasonable to conclude that contraction and expansion of the side walls of the shuttering would necessarily require at least a small amount of deformation of the upper part of the base portions as well. This is best illustrated in document D3 where the lateral deformation of the side walls 132a, 132b is encouraged by the V-shaped partition 116 (see paragraph 0046), which would appear to necessarily require at least some movement of the top walls 120c, 122c of the base portion as well. Hence, it is my opinion that difference (ii) would also have been obvious to the person skilled in the art.

36. Both the rectangular rod 16 in D1 and the strip 152 in D3 are evidently designed for permanent fixture to the respective shuttering. Both documents teach away from a *releasably attachable* strip and there is nothing within the common general knowledge of the skilled person that would lead them to make such a modification. The shuttering formwork taught by both D1 and D3 are sacrificial, remaining in place after the slab is cast, and so it would not be obvious to a skilled person to introduce a temporary, removable strip. Therefore, I am of the opinion that difference (iii) would not have been obvious to the person skilled in the art.

37. Apertures 3 in the base of D1 allow for pins or bolts (not mortar) to fix the shuttering to the ground. On the other hand, D3 does disclose securing the shuttering to a dot of mortar to anchor longitudinally-extending legs (e.g. paragraph 0049 and figure 4). However, neither of these disclosures would lead a skilled person to a modification including base apertures suitable for *receiving mortar material*. The base apertures of D1, being long and thin, are unsuitable for receiving mortar and there is no motivation for the skilled person to exchange the legs of D3 for suitable apertures. Therefore, it is my opinion that difference (iv) would not have been obvious to the person skilled in the art.

The product

38. The “Tec-Form” product is a compressible screed rail formwork system available in three sizes of base rail and two heights of top strip. Illustrated below are the 40mm and 80mm base rails, the 2mm top cap, and the 25mm top extender. The marketing material for the “Tec Form” system describes its “Thermoplastic Polymer compound profile” as having “curved internal strengthening webs, shaped to allow the form to expand and contract” – these curved internal strengthening webs can be seen in the two base rails illustrated below. Additionally, “built-in Butyl rubber compound inserts… can re-inflate after compression and return the rail to its original position”.

Figure 1 - 40mm base rail

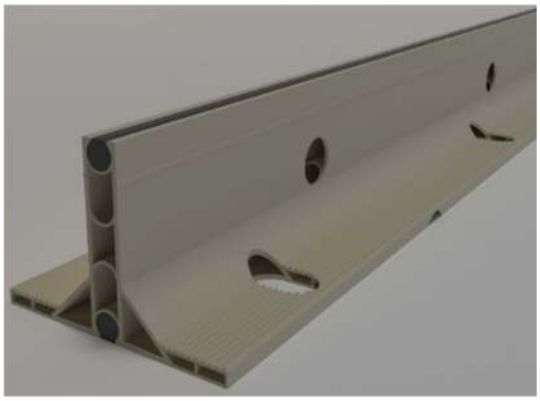


Figure 2 – 80mm base rail

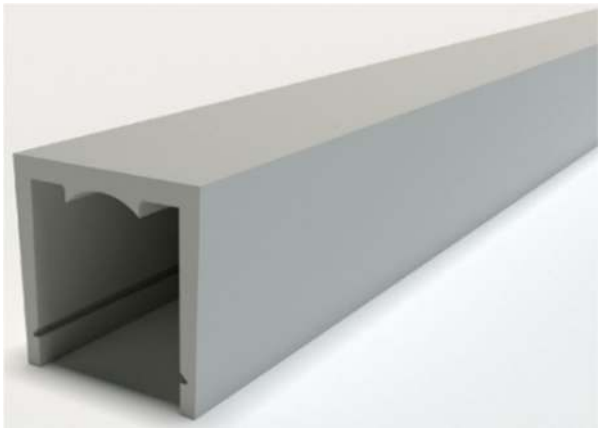


Figure 3 - 2mm top cap

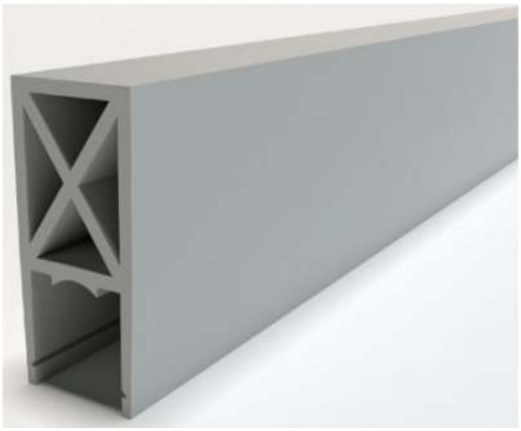
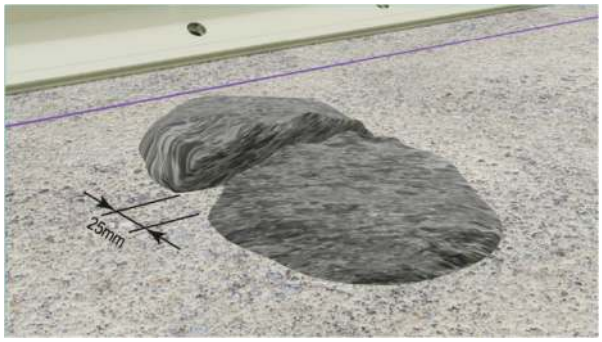
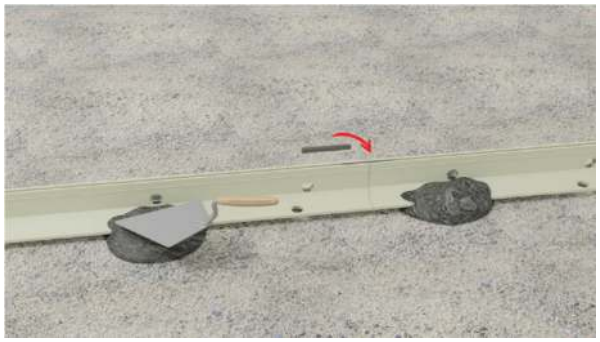


Figure 4 - 25mm top extender

39. The expansion and contraction of the Tec-Form rail is illustrated further below (again, re-produced from Tec-Form marketing material).

40. The Tec-Form base rails may be installed using mortar dabs as illustrated below. Firstly, mortar dabs are placed at even spacing along where the Tec-Form is to be positioned. Each dab is divided into two equal piles and then the Tec-Form rail is placed onto the dabs, tamped down to the correct height, and excess mortar is trowelled over onto the rail base. The mortar is allowed to cure, any top strips are then fitted on top of the rail and the concrete slab can be poured either side of the rail. After the slab has hardened, the top strips can be removed and, if necessary, a joint filler can be poured into the top void of the rail.





Infringement

41. Section 60 of the Patents Act governs what constitutes infringement of a patent; Section 60(1) reads:

> *Subject to the provision of this section, a person infringes a patent for an invention if, but only if, while the patent is in force, he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent, that is to say -*
>
> *(a) where the invention is a product, he makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise;*
>
> *(b) where the invention is a process, he uses the process or he offers it for use in the United Kingdom when he knows, or it is obvious to a reasonable person in the circumstances, that its use there without the consent of the proprietor would be an infringement of the patent;*
>
> *(c) where the invention is a process, he disposes of, offers to dispose of, uses or imports any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise.*

42. In the Supreme Court in *Actavis v Eli Lilly*[5], Lord Neuberger stated that the problem of infringement is best approached by addressing two issues, each of which is to be considered through the eyes of the notional addressee of the patent in suit, i.e. the person skilled in the relevant art. Those issues are:

> *(i) does the variant infringe any of the claims as a matter of normal interpretation; and, if not,*
>
> *(ii) does the variant nonetheless infringe because it varies from the invention in a*

5 *Actavis UK Limited and Others v Eli Lilly and Company [2017] UKSC 48*

way or ways which is or are immaterial?

43. If the answer to either issue is "yes", there is infringement; otherwise there is not.

44. The requester submits that all sizes of the Tec-Form product, with top strips, have all integers of claim 1 of the patent. The observer argues that, in particular, the Tec-Form products do not have (i) "*a free end (105)*" of the "*compression portion (104)*" that "*extends in the length direction (L)*" (integer 3); (ii) a "*strip element (110)… [comprising] a hollow structure*" (integer 7); and (iii) a "*compression portion side face (108)… being a resiliently deformable surface*" (integer 8).

45. Firstly, as discussed above in paragraph 19, I believe that a skilled person would understand the "*free end*" of the "*compression portion (104)*" to mean a freely accessible extremity to which the "*strip element*" is securable and releasable. I do not believe, as the observer has argued, that the mention of "shoulders" in the "illustrated example" described in paragraph 0020 of the patent should narrow the meaning of the "*free end*". Rather, I am of the opinion that the upper part of each of the three sizes of base rails of the Tec-Form product falls within the scope of the "*free end*" of the "*compression portion (104)*" identified in integer 3 of claim 1 as a matter of normal interpretation.

46. Secondly, as already indicated in paragraph 20 above, I believe that a skilled person would understand the "*hollow structure*" of the "*strip element (110)*" to require interconnected first and second spaced apart walls, and a reduced weight (in comparison to a solid structure of the same material). The observer has argued that, when in use, the top cap of the Tec-Form product is not hollow but rather covers and encompasses the butyl rubber insert. The observer also argues that, when in use, the lower portion of the top extender would also cover and encompass the butyl rubber insert (and so is not hollow) and further argues that the upper part of the top extender is not hollow either because it has diagonal cross-pieces. However, I do not believe that these factors place either the top cap or the top extender of the Tec-Form product outside of the scope of the "*hollow structure*" of the "*strip element (110)*" identified in integer 7 of claim 1. Rather, I agree with the arguments of the requester when they point out that the wording of claim 1 indicates a definition of features of the "*strip element (110)*" when ***not*** attached to the "*free end (105) of said compression portion (104)*" (i.e. integer 5 of claim 1 defines the "*strip element (110) releasably **attachable** to said free end (105) of said compression portion (104)*" rather than releasably **detachable**). Furthermore, I do not believe that the cross-pieces of the upper part of Tec-Form's top extender prevent it from being considered as hollow. In fact, as already noted above, the "preferred example" outlined in paragraph 0015 of the patent indicates that the hollow structure of the strip element may be "provided by first and second spaced apart walls that are connected by flutes or ***cross-pieces***." It is also clear that a skilled person would recognise the same benefit is achieved by both the top cap and the top extender of the Tec-Form product as that indicated in the patent for the "*hollow structure*" of the "*strip element (110)*", namely a reduced weight. Therefore, I am of the opinion that both the top cap and the top extender of the Tec-Form product have the "*hollow structure*" of the "*strip element (110)*" identified in integer 7 of claim 1 as a matter of normal interpretation.

47. Thirdly, as discussed in paragraph 21 above, I believe that a skilled person would

understand the "*resiliently deformable surface*" of the "*compression portion side face (108)*" to mean a surface that can deform and then reform in response to varying compressive force. The observer has argued that the Tec-Form base rails do not have such a "*resiliently deformable surface*". Rather, they argue that the two surfaces perpendicular to the base remain rigid and it is the webs between the two surfaces that contract and expand, assisted by the rubber insert(s) (see paragraph 39 above). In this way, the two surfaces can be rigid but move to and from each other as needed.

48. To support this view, the observer has presented results of tests conducted to compare the Tec-Form product with commercial products covered by the patent. The tests involved applying incremental force vertically to the top of samples of the Tec-Form product and samples of patented products of the requester to measure deflection of the test sample at each increment (see picture below). The observer argues that the test results indicate or infer that the two surfaces perpendicular to the base remain rigid and are not "*resiliently deformable*". Whilst these tests may demonstrate that the Tec-Form product exhibits a greater resistance to *vertical* force, I am inclined to agree with the requester's response that these tests are not replicating the *lateral* forces exerted on the formwork whilst poured concrete is curing or the expansion and contraction of concrete in response to changes in ambient temperature.

49. Furthermore, the requester has suggested that since (i) the base of the Tec-Form product is held in place by either mortar dabs or pins, (ii) the serrations on the upper surface of the base lock into the concrete slab and (iii) the butyl rubber inserts provide resistance to movement, then it is inevitable that the side walls of the upright will deform with the lateral expansion and contraction of the concrete. This seems correct to me. Based on the evidence presented, it would appear impossible for the two perpendicular side walls of the base rail to remain in rigid vertical alignment as they move together and apart, since (i) the side walls are attached to the base portion and, in use, the base portion is fixed in place (i.e. the mortar dabs holding it in place are left to cure before the concrete slab is poured), and (ii) the two side walls have varying points of resistance to movement (e.g. the rubber inserts and the internal webs). There will inevitably be deformation of the perpendicular side walls and, for that matter, also the upper part of the base portion. Therefore, I am of the opinion that each of the three

sizes of base rail of the Tec-Form product have the "*resiliently deformable surface*" of the "*compression portion side face (108)*" identified in integer 8 of claim 1 as a matter of normal interpretation.

50. Since I have determined that the Tec-Form product has each of the integers of claim 1 as a matter of normal interpretation, it is not necessary for me to consider the second issue outlined in *Actavis v Eli Lilly*[5].

Opinion

51. It is my opinion that European Patent (UK) 2365150 B3 is valid, being both novel and inventive over prior art documents D1, D2 and D3.

52. It is also my opinion that the three sizes of base rail together with the two heights of top strip of the Tec-Form product do infringe European Patent (UK) 2365150 B3.

Dan Hickery
Examiner

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.