



**TC02283**

**Appeal number: TC/2011/10167**

*Value Added Tax - Reduced rate supply - Energy saving materials - Insulation for roofs - Polycarbonate panels for conservatories - Panels supplied to create new roof – Panels supplied to replace existing panels – Radiation reflector strips installed in existing panels – Whether energy saving materials comprising insulation for roofs – Appeal allowed- VATA 1994 Schedule 7A Group 2*

**FIRST-TIER TRIBUNAL  
TAX CHAMBER**

**PINEVALE LIMITED**

**Appellant**

**- and -**

**THE COMMISSIONERS FOR HER MAJESTY'S    Respondents  
REVENUE & CUSTOMS**

**TRIBUNAL:    SIR STEPHEN OLIVER QC**

**Sitting in public in London on 5<sup>th</sup> September 2012.**

**Simon Levine CTA AIT of VAT of Advice Line Limited for the Appellant**

**Karren Kay for the Respondents**

## DECISION

1. Pinevale Limited appeals against the decision of HMRC that supplies of polycarbonate panels and of radiation strips for conservatory roofs do not qualify for the reduced rate of 5% Value Added Tax (VAT) as energy saving materials.

### *Pinevale Limited*

2. Pinevale trades as “Insu”. It specialises in insulation of conservatories with particular emphasis on improving the insulation with the use of products that it devises and installs. Its website states its aim as follows:

“We specialise in improving the insulation of your conservatory with the use of energy saving advanced products. We keep the heat in in winter when it’s cold (reducing your energy bills and carbon footprint), and solar heat out when it’s too hot in summer – in fact we’ve got a solution to whatever your conservatory environment problem. Insu, with over 20 years experience in this specialised field, comprises modern technology and good old fashioned know-how to provide you with a complete start to finish and professional solution whatever the roof type – glass or polycarbonate, material, construction, supplier and age of your conservatory. You could save over £400 on annual heating bills and drastically reduce your carbon footprint. Transform your conservatory into an efficient passive solar collector – results equivalent to an insulated brick cavity wall are possible!”

### *The Evidence*

3. Pinevale’s witness was David Anderson, its Technical Director. His evidence covered the nature, testing and installation of the so-called “Insupolycarbonate Panels” and the radiation reflector strips. These are referred to collectively as “the Products”. Mr Anderson’s evidence included a demonstration of a steaming kettle encased within the three different panels. The purpose of the demonstration was to show the different insulation properties of those panels. Also in evidence was technical material covering the insulation properties of both forms of Product and extracts from Pinevale’s website.

### *The Products*

4. The principal Product, the Insupolycarbonate Roofing Panel, consists of polycarbonate materials comprising four or more cells. Polycarbonate does not have the structural rigidity for use on its own as a panel; the Product is therefore manufactured as a cellular structure and designed to fit into an aluminium frame. The frame holds cells with thicknesses of either 25mm or 35mm. The thicker the panel the higher is the insulation performance. The insulation panels are designed to admit daylight into the conservatory. A “thermal break” consisting of opaque insulating material may be attached to the aluminium framework structure to reduce heat loss due to conduction.

5. The other type of Product is the transparent heat reflector taking the form of a radiation reflector strip. This is designed to exclude summer solar heat. These strips are either installed in the principal Product, slotted into the top cavity or they can be installed on site into an existing cellular polycarbonate roof. The energy saving properties of the Products

*The energy-saving properties of the Product*

6. 80% of the heat loss from a conservatory is through its roof. This is because the warmer air in the conservatory collects in the roof, the outer surface of which is more exposed to wind and the chill of the open air. Heat loss through radiation is at its highest through the roof of the conservatory.

7. The cellular structure of the Panel counteracts heat loss resulting from conduction and convection. The radiation reflector strips counteract heat loss through radiation and cut solar heat in summer.

8. The heat loss value of insulation is measured in units known as “U-Values”. Compared with “modern” double glazing (being double glazing installed to comply with 2004 Building Regulations) whose heat loss U-Value is 2, the “Insu High Performance” Roof achieves the lower heat loss of 0.8. The U-value of the heat loss of the pre 2004 double glazing is 3 Units.

9. Pinevale’s “Product Data Sheet” publicises claims relating to “technical performance” as follows:

“Insu conservatory roofing with heat reflectors:

- Reduces winter heat loss by 66% compared to traditional conservatory roof products.
- Cuts solar heat gain by 85% to eliminate the need for, and save the cost of, air conditioning.

Insu Roofing is the most technically advanced and most effective roofing available. Its unique structure which incorporates low conductivity gas, and heat reflectors provides the maximum winter thermal insulation possible. External heat reflectors in the outer wall exclude 80% of the sun’s heat and glare. ...

TECHNICAL PERFORMANCE. *Winter bills heating cost reductions.* Insupolycarbonate reduces U-values from 3.3.... for traditional roofs to 1.3 ..... to cut out heat loss through the roof by 60%. In addition surface temperatures on the inside of the glazing are lifted from 8°C to 16° C. This is important because thermal comfort depends not only on the air temperature represented by the thermostat setting, but also upon the temperature of our surroundings. Typically within a house the temperatures of our surroundings, the walls, and ceiling, are 22°C. In the conservatory the temperature of the roof and surroundings are much lower at 8° to 10°C

5 which means that to counteract this feeling of coldness, it is necessary to lift the air temperature to 27°C to maintain comfortable conditions. The impact of the high insulation standard of insupolycarbonate on the surface temperatures is to increase them by 8 to 10°C, which means that air temperatures can be reduced by up to 3°C for an equivalent level of comfort. As heating costs are reduced by up to 10% for each 1°C reduction in the thermostat, it is possible to cut heating cost by a further 30% to give combined overall heating cost reductions of from 60% to 80% depending on roof area”.

10 10. It was no part of HMRC’s case to challenge either Mr Anderson’s evidence or Pinevale’s claims summarised above.

11. Mr Anderson’s evidence was that the better the insulation of the conservatory the lower the level at which the thermostat could be set. The typical conservatory that was not fitted with the Product required a thermostat level of “25°C or more to achieve a normally comfortable temperature of 20°C”. By comparison the thermostat level required for an equivalent 20°C temperature will, when the conservatory has a 35 millimetre high insulation Insupolycarbonate, be 3-5°C lower. Mr Anderson confirmed that for each 1°C increase in temperature, energy fuel costs are increased by 10%. He also confirmed Pinevale’s website claim that the improvement to insulation could be “up to £400 on your overall house heating bill”. He endorsed the claim that by “employing its solar heat reflection technology” heat gain “can be reduced by 80% so you can use your conservatory in comfort and throughout the summer”. (Mr Anderson, as already noted, demonstrated his points by placing three panels beside a boiling kettle. The heat loss was evidently less when the Insupolycarbonate cells were used as compared with where ordinary panels were used.)

#### ***The services provided by Pinevale***

12. Mr Anderson said that the conservatories with which Pinevale dealt would have been extensions of existing houses that have been in place and used for several years. The procedure starts with a meeting at which Pinevale’s representative and the client discuss the available methods of insulating both to keep heat in during the winter and to maintain cooler temperatures during the summer. The solution may be the replacement of faulty components such as glazing bars, crests or valleys, failed panels or sealed units. The replaced panels may be Insu high performance polycarbonate light weight insulation or glass-sealed units. Where the conservatory requires a complete new roof structure and the existing eaves beam is sufficiently strong, then the entire roof can be replaced or the style or shape of the roof can be changed. The solution may simply be the insertion of radiation reflector strips into the existing cellular structure.

#### ***The Law***

13. VAT Act 1994, Section 29A (as inserted by Finance Act 2001) enacts that goods and services specified in Schedule 7A to that Act are reduced-rated. The

relevant wording here is Group 2, Schedule 7A. This is headed “Installation of Energy-Saving Materials”. It reads as follows:

“Item No

1. Supplies of services of installing energy-saving materials in –

- 5 (a) residential accommodation, or  
(b) a building intended for use solely for a relevant charitable purpose.

2. Supplies of energy-saving materials by a person who installs those materials in-

- 10 (a) residential accommodation, or  
(b) a building intended for use solely for a relevant charitable purpose.

Notes;

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*Meaning of “Energy-saving materials”*

1. For the purposes for this Group “energy-saving materials” means any of the following-

- 20 (a) insulation for walls, floor, ceilings, roofs or lofts or for water tanks, pipes or other plumbing fittings;  
(b) draught stripping for windows and doors;  
(c) central heating system controls (including thermostatic radiator valves);  
25 (d) hot water system controls;  
(e) solar panels;  
(f) wind turbines;  
(g) water turbines;  
(h) ground source heat pumps;  
30 (i) air source heat pumps;  
(j) micro combined heat and power units”

14. The only decision on Group 2 is *Beco Products Limited* reported as (2004) VTD 18638.

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***The Decision under Appeal***

15. A review decision in letter of 14<sup>th</sup> November 2011 refused Pinevale’s claim to charge VAT at the reduced rate. The opinion of the Construction Unit of Expertise was said to be that the Product is “at most very efficient double-glazing” the heat reflecting materials operate as “radiation barriers” without providing “much thermal insulation” and are not to be regarded as energy-saving materials. The “Insu polycarbonate roof panels” are “primarily roof panels, with insulation as their secondary purpose”.

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### *The Arguments*

16. Pinevale contends that its supplies of both the Insupolycarbonate panels and the transparent heat reflectors are within Group 2 of the Schedule 7A. They are energy-saving materials being “insulation for roofs”. The evidence demonstrates their energy-saving features. They “insulate” in the sense of forming a barrier to reduce or stop heat loss or in summer, heat gain.

17. The case for HMRC, expressed generally, is that the Products are not to be regarded as energy-saving. They are, to quote from the Statement of Case, “a more efficient way of double-glazing your house without the use of energy-saving materials”. Specifically, say HMRC:

(1) The replacement of a roof structure with a new one made from polycarbonate is not “insulation for roofs, it is the replacement of the whole roof rather than just the insulation of an existing roof”.

(2) The replacement of individual panels with polycarbonate ones is “the supply of new roof panelling” rather than “insulation for a roof”

(3) The insertion of solar heating reflectors into existing roof panelling is not within Group 2. First, “a conservatory roof is not like a conventional roof at all, as it is transparent and has more the characteristics of windows rather than a roof”. Second, the heat reflector “is more a product which would regulate the heat of the conservatory rather than primarily an insulation material”.

### *Conclusions*

18. The question of law is whether Pinevale’s supplies are of, or relate to, energy-saving materials being materials that are “insulation for...roofs”. The supplies have to satisfy a single composite test that has two separate ingredients. First, can the relevant Product properly be classed as an energy-saving material? That is the overriding attribute that it must possess whatever the purpose or use to which it is designed to be put. The second test, relevant to the present issue, relates to the purpose or use for which the material is supplied. That test is whether the relevant material is “insulation for ... roofs”? Failure of either test disqualifies the supply from the reduced rate of VAT.

#### *Is the Product an energy-saving material?*

19. Apart from the requirement that the Product in question has to perform one or more of the functions in the Notes, the supplier has to satisfy the Tribunal that the Product is an energy-saving material. HMRC did not challenge the evidence produced by Pinevale relating to the energy saving properties of the insupolycarbonate panels. As compared with the single glass panel, the Insupolycarbonate panel, whether 25mm or 35mm thick, must, I think, be regarded as energy-saving. The Product achieves a demonstrable reduction in heat loss. The same can be said of the radiation reflector strips when supplied as separate Products.

20. That characteristic is not only proved as an objective fact by the unchallenged evidence presented to the Tribunal. It is also in line with Pinevale's unchallenged claims which emphasise both the energy-saving attributes of the Products and their impact on the user's energy bills. I refer to Paragraph 2 above which states Pinevale's aim in its website.

21. I do not accept HMRC's description of the Products as "a more efficient way of double glazing your house without the use of energy-saving materials". The Insupolycarbonate panels, as shown by the evidence summarised above, are significantly different from double glazing. In this connection, I mention certain differences between double glazing and Insupolycarbonate that were pointed out by Mr Anderson. First, double-glazing is composed of two hermitically sealed glass panels and not by polycarbonate panels. Second, double-glazing, unlike the Product, requires a desiccant. Third, double glazing affords a clear view out; the Product (being the panel), while admitting light, does not do so.

*Is the relevant Product "insulation for.... roofs?"*

22. Note 1 (a) specifically identifies certain parts of a structure and certain fittings to the structure as areas for relief given by Group 2. The function of the word "for" in the expression "insulation for walls, floors, ceilings, roofs or lofts or for water tanks, pipes of other plumbing fittings" is to prescribe the purpose for which or the use to which the relevant material is to be put. The word "for" limits the scope of insulating materials that are to qualify for the reduced rate. Insulation for windows or doors, for example, has been left out of the class covered by Note 1(a); it qualifies only if it is "draught stripping" within Note 1(b).

23. A comparison of the structure of Note 1(a) with that of Note 1(b) shows how Note 1(a) has been worded so as to bring into the reduced rate materials supplied for the stated purpose or use. So long as the material is "energy-saving" and is supplied for insulating roofs or lofts, for example, the supply qualifies for the reduced rate. In Note 1(b), by contrast, the wording has been chosen to prescribe precisely what purpose the materials are to serve and precisely where they are to be installed. Thus, draught stripping material has to be attached to the door or window frame (or to the door or window itself) if it is to function properly.

24. The way Note 1(a) has been written brings to mind a building supply warehouse divided into product areas. One area, for example, has the sign "insulation for walls", another has the sign "insulation for water tanks". Nothing more explicit needs to be said to give the right message. The area signed as "insulation for roofs" would not, in my view, confine its products to panels to be attached to existing roofs; one would expect to find all types of roofing insulation including those designed for use as a roof or as component parts of a roof.

25. HMRC are, in my view, adopting too constrained a meaning of "insulation for" when they seek to exclude the situation where the whole roof structure is replaced or where individual panels are. It is in my view, significant that HMRC have identified

no form of energy-saving material that is ordinarily attached to an existing but energy-inefficient roof. I accept that a second layer of glass (when installed to create a double glazed roof) may function as energy saving, but the glass itself is not energy saving material.

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26. The evidence summarised above shows that Pinevale’s market for the Product is customers who want to have the Product installed in the construction or repair of roofing insulated with energy-saving materials. The Product is designed for no other purpose. Those points further indicate that the Product is “insulation for roofs”. That expression can fairly be read as covering insulation where the Product functions as the roof and thereby keeps the inside of the conservatory wind and watertight. It is just as much “insulation for roofs” as where it is supplied to be attached to an existing roof of a building.

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15 *Do the radiation reflector strips regulate rather than insulate?*

27. HMRC’s decision on this topic is that these strips regulate the heat of the conservatory rather than function as primarily an insulation material.

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28. I can find nothing in Schedule 7A that in any way excludes a product, consisting of energy saving material which is designed and installed for insulation, from the reduced rate of VAT on goods on the grounds that it serves to regulate the temperature. The expression “regulates” in relation to the temperature suggests the function of controlling or governing it. Note 1 (c) for example, specifically includes central heating controls including thermostatic radiator valves. Here the radiation reflection strips inserted into the panels serve to exclude extremes of temperatures. They do not have a controlling function like that of thermostatic radiator valves. If they can be said to serve as governors of the temperature, that might amount to “regulation” in the broadest sense of the word; but it in no way excludes the other and more significant function of insulation.

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*Do the panels have “more of the characteristics of windows rather than a roof”?*

29. HMRC suggest that they do. I do not accept this. They admit the light through the roof of which they form part. They do not provide a clear view of the sky.

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*The Beco Decision*

30. Beco manufactured and supplied energy-saving materials for installation in buildings. It supplied lightweight hollow building blocks, made of moulded expanded polystyrene. These were used to form walls. Beco claimed that, where it installed these blocks in the course of an extension alteration, the whole of the work covered by the relevant contract could be treated as qualifying for the reduced rate. The appeal was against the rejection of that claim. The Tribunal dismissed Beco’s appeal, holding that the blocks were simply “insulation for walls, etc, like any other insulation, such as cavity-wall infilling”. The Tribunal went on to observe that where the blocks were:

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5 “...installed as part of an entire contract for construction, the dominant purpose of the contract will be the building that results. The dominant purpose will not be the insulation provided by the system..... The purchaser wants a building first and foremost, and that is indeed what he gets. For a building to be ‘a solid, structure, permanent and weather proof’ would normally be more important than the quality of the insulation.”

10 The claim in *Beco* did not arise in the present situation. The *Beco* decision observes that “the legislation is not talking about the wall itself. The legislation looks to the materials supplied which will, following insulation, form part of the wall, i.e. part of the final building”: see Paragraph 31 of the Decision. The Product here comprises the materials that will, following construction, form the roof or part of the roof as the case may be. Further, this is a case where the customer wants an insulated roof; it cannot be said here, as was said of the *Beco* situation, that the customer’s dominant purpose was the building rather than the insulation. The evidence here shows that the Product is marketed and sold as insulation for conservatories. The customer already has the structure. The inference must be that the customer’s dominant purpose in obtaining the supply is insulation for the roof of his conservatory.

20 ***Decision***

31. For the reasons given above I conclude that the Products are energy-saving materials being insulation for roofs within the Schedule 7A of Group 2.

25 32. That conclusion applies whether the Products are installed as part of the procedure for replacing a whole conservatory roof or to replace individual panels on an existing roof; it also applies to the supply and installation of radiation reflector strips.

30 33. The Appeal is allowed.

34. This document contains full findings of fact and reasons for the decision. Any party dissatisfied with this decision has a right to apply for permission to appeal against it pursuant to Rule 39 of the Tribunal Procedure (First-tier Tribunal) (Tax Chamber) Rules 2009. The application must be received by this Tribunal not later than 56 days after this decision is sent to that party. The parties are referred to “Guidance to accompany a Decision from the First-tier Tribunal (Tax Chamber)” which accompanies and forms part of this decision notice.

40 **SIR STEPHEN OLIVER QC**  
**TRIBUNAL JUDGE**

**RELEASE DATE: 27 September 2012**

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