

QUESTION WE'VE BEEN ASKED QB 17/01

DEPRECIATION TREATMENT FOR "BUILDINGS WITH PREFABRICATED STRESSED-SKIN INSULATION PANELS"

All legislative references are to the Income Tax Act 2007 unless otherwise stated.

This Question We've Been Asked provides guidance for both taxpayers and Inland Revenue staff on which buildings the Commissioner considers come within the asset class "Buildings with prefabricated stressed-skin insulation panels" in the "Buildings and Structures" asset category in the Commissioner's Table of Depreciation Rates.

Question

1. What buildings come within the asset class "Buildings with prefabricated stressed-skin insulation panels"?

Answer

2. The asset class "Buildings with prefabricated stressed-skin insulation panels" (sandwich panels) includes buildings¹ where:
 - The structural framework of the building is of a material other than sandwich panels and the building can be categorised as a "shade-roof structure", or
 - The structural framework of the building is of a material other than sandwich panels and no less than 75% of the exterior cladding of the building is predominantly made using sandwich panels. In calculating this 75% threshold:
 - The windows and doors of a building are ignored and treated as being constructed of the same material as that which surrounds them.
 - Unless the roof of a building is constructed solely or partly using sandwich panels, the roof of the building is ignored and the calculation focuses only on the exterior cladding used to construct the side walls of the building. Where the roof is constructed solely or partly using sandwich panels, the calculation should focus on the square metre area of the exterior cladding of the entire building (that is, the square metre area of both the side walls and roof of the building), or
 - Sandwich panels form the core of the structural framework of the building; the building is constructed solely of interlocking sandwich panels without any other form of frame construction (steel, for instance).

Background

3. In Tax Information Bulletin Vol 27, No 10 (November 2015) the Commissioner published QB 15/12 *Depreciation treatment for "Buildings with prefabricated stressed-skin insulation panels"* (QB 15/12). Feedback received since this item was published indicates that taxpayers have found its contents difficult to understand and apply in practice. In order to provide greater clarity this item updates and replaces QB 15/12.

¹ For the meaning of the term "building" in the context of the depreciation provisions, please refer to Interpretation Statement IS 10/02: "Meaning of 'building' in the depreciation provisions" (*Tax Information Bulletin* Vol 22, No 5 (June 2010): 24).

4. A prefabricated stressed-skin insulation panel comprises a foam core sandwiched between two "skins". The core is most commonly made from polyurethane or styrene foam and is both durable and light weight. The "skin" is most commonly made from stainless steel, aluminium or plain galvanised steel. These panels are referred to as "sandwich panels".
5. Since the 1970's, the use of sandwich panels has been a cost-efficient element in the construction of buildings where hygienic food storage is required; coolstores and meat or fish processing facilities for example. Their use enables product to be held within a defined temperature range and so more easily meet storage, handling and hygiene regulations as well as client requirements for a finished product (chilled rather than frozen meat, for example).
6. Historically, the use of sandwich panels was limited to lining the internal walls of a building for insulation purposes, with (generally) steel being used for the framing, roofing and external weather cladding of the building. However, as sandwich panel quality and manufacturing techniques improved, sandwich panels have been used as unprotected weather cladding and insulation for the building or even as the core structural element, weather cladding and insulation for the building.
7. The "Buildings with prefabricated stressed-skin insulation panels" asset class appears in the "Building and Structures" asset category in the Commissioner's Table of Depreciation Rates ("Depreciation Table") and has a depreciation rate of 4.5% diminishing value (DV) or 3% straight line value, based on an estimated useful life (EUL) of 33.3 years.

Discussion

8. In the asset categories contained in *Determination DEP 1: Tax Depreciation Rates General Determination Number 1* (DEP 1), the building asset classes are initially described by the structural/construction method used (for example, *Buildings with steel or steel and timber framing*). In some cases these generally described building classes will be further, more narrowly, described by the activity the building houses (for example, *Fertiliser works, Mushroom factories*). The asset class "Buildings with prefabricated stressed-skin insulation panels" is a reference to an element of the construction, rather than to an activity that is being carried on within the structure.
9. Used in this context, the word "with" can be defined as being either "accompanied by" or "material used for a purpose"². Given these definitions it is the Commissioner's view that, to fall within this asset class a building will either need to be constructed solely of sandwich panels or constructed using other materials (steel for instance) but "accompanied by" sandwich panels (usually as cladding and/or insulation). As has already been stated, the wording used to describe this class of building is not a reference to any activity that may be undertaken within the building. This being so, the EUL that has been set for this asset class assumes that the EUL will not be affected by the activities undertaken within the building³.
10. Given all of the above, it is the Commissioner's view is that the prefabricated stressed-skin insulation panels asset class could include either the building's cladding or the framing structure, as follows:

² Concise Oxford English Dictionary.

³ This is further discussed at [18].

The structural framework of the building is of a material other than sandwich panels and the building can be categorised as a "shade-roof structure"

11. Historically steel has been the predominant material used in the framing of buildings that also use sandwich panels, due to steel's economy and resilience in low temperature environments. Historically, coolstore buildings have been an example of this. Typically, the building will be constructed using steel framing with sheet metal cladding that acted as a weather enclosure. The insulated building will be created by lining the inside of the metal clad building with sandwich panels to form a fully insulated "box". Where a structure is fully insulated in this way it is known as a shade-roof structure.
12. As these shade-roof structures are "accompanied by" sandwich panels, they fall within the asset class *Buildings with prefabricated stressed-skin insulation panels*.

The structural framework of the building is of a material other than sandwich panels and no less than 75% of the exterior cladding of the building is predominantly made using sandwich panels

13. In some instances the exterior cladding of a building may be constructed from mixed materials. For example, a building has steel framing with most of the building being clad using sandwich panels. There is however a small administration room at one end of the building that is built from concrete blocks. Alternatively, the steel framed building may be largely constructed using concrete blocks, but have a small coolstore facility attached that is constructed of sandwich panels.
14. Where the exterior cladding of a building is made from mixed construction materials, the Commissioner will take into account the overall percentage of the different materials used. If, overall, 75% or more of the exterior wall cladding of the building is made from sandwich panels, the Commissioner considers that the building comes within the asset class *Buildings with prefabricated stressed-skin insulation panels*.
15. The CIR arrived at this 75% threshold after receiving specialist valuation advice. This threshold is indicative of the "tipping point" at which the EUL of the building is negatively impacted by the use of sandwich panels. It is the CIR's view that, where less than 75% of the exterior cladding of the building is made from sandwich panels then, subject to normal and reasonable maintenance being maintained⁴, this type of building will generally have a EUL of 50 years.
16. Whether 75% of the building is constructed using sandwich panels is calculated using the following formula:

$$\frac{\text{Square metre area of sandwich panels used as external cladding}}{\text{Total square metre area of all of the building's external cladding}}$$

17. In calculating the square metre area the following matters are to be taken into account:
 - The windows and doors of a building are ignored and treated as being constructed of the same material as that which surrounds them.
 - Unless the roof of a building is constructed solely or partly using sandwich panels, the roof of the building is ignored and the calculation focuses only on the exterior cladding used to construct the side walls of the building. Where

⁴ Per the definition of *estimated useful life* contained in section EE 63(1) of the Income Tax Act 2007.

the roof is constructed solely or partly using sandwich panels, the calculation should focus on the square metre area of the exterior cladding of the entire building (that is, the square metre area of both the side walls and roof of the building).

18. As previously stated (at [9]), this 75% threshold assumes that there are no other factors that would affect the EUL of that class of building. Where there are other factors that may affect the EUL of a class of building in a taxpayer's possession, then a taxpayer is able to make a provisional depreciation determination application to the CIR⁵.

Sandwich panels form the core of the structural framework of the building; the building is constructed solely of interlocking sandwich panels without any other form of frame construction (steel, for instance)

19. As manufacturing techniques and sandwich panel quality has improved, sandwich panels are increasingly being used as unprotected cladding against external weather environments. This decreased use of the more conventional sheet-metal cladding has seen sandwich panels being used as the structural element, weather cladding and insulation of buildings. As the building is constructed solely from sandwich panels, the building comes within the asset class *Buildings with prefabricated stressed-skin insulation panels*.

Changing a depreciation rate

20. In limited circumstances a taxpayer can change the depreciation rate that they use to depreciate an item of depreciable property. For example, where the taxpayer has been using an incorrect rate.
21. For further guidance on changing to a different depreciation rate please refer to QB 15/03: *Income tax – changing to a different depreciation rate for an item of depreciable property* (Tax Information Bulletin Vol 27, No 4 (May 2015): 30)⁶.

⁵ An example of this occurring is described in *Determination PROV 24: Provisional depreciation rate for mushroom factory building and plant*. In that case the CIR accepted that the EUL of these specialised buildings was affected because they are exposed to a wet, humid and corrosive environment due to the material that is used in growing mushrooms and the environment that mushrooms need to grow successfully.

⁶ More information on QB 15/03 can be found at www.ird.govt.nz (search term "QB 15/03").