



TEACHERS ASSOCIATION OF SOUTH AFRICA DEKKERSVERENIGING VAN SUID-AFRIKA

Newsletter8/2019
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NEWSLETTER

SANS 10400 PART T (FIRE)

A working group was set up again at a meeting of the SABS / TC 060 Standards addressing the National Building Regulations on August 27, 2019. The TASA is part of that and, as far as the Thatching Industry is concerned, the following paragraphs will be addressed. Some of the problem areas are highlighted.

“4.12.2 Thatched roofs

4.12.2.1 The safety distances derived from 4.2 shall, notwithstanding the occupancy classes given in table 2, be based on a high fire load where the thatch is unprotected and value A in the formula will be based on the total façade area of the building facing the boundary, irrespective of the wall type or openings and including the roof, .

The safety distance, in the case of a thatched roof building, is measured from the edge of the thatch closest to the lateral or notional boundary respectively

Where the thatch is provided with a **fire-retardant system** which is tested in accordance with **SANS 10177 Part 12**, exposure test, the safety distances shall be calculated in accordance with the respective fire loads depicted in Table 2, Clause 4.2, based on the classification of roof as follows:

(Definition of a fire-retardant system:

*A fire retardant is a **substance** that is used to slow or stop the spread of fire or reduce its intensity. This is commonly accomplished by chemical reactions that reduce the flammability of fuels or delay their combustion. Fire retardants may also cool the fuel through physical action or endothermic chemical reactions.*

The intention of TASA with the wording of this paragraph was that systems include other fire-prevention systems such as fire blankets, drencher and sprinkler systems, etc. But the argument was that eg fire blankets are not a substance and therefore cause confusion.

Advice given was that the wording should be changed to for example fire management systems instead of fire retardant systems and then the description of the protection / detection systems must follow.)

Class A – Low fire load
Class B – Medium fire load
Class C – High fire load

Note: The safety distance calculated from the roof elevation area facing the respective boundary or any other building on the same site and should be measured from the mid position of the sloped roof elevation facing the respective boundary or building. *(Two different measurements.*

A Classification C is equivalent to an unprotected roof.

4.12.2.2 Notwithstanding the requirements of 4.12.1, a thatched lapa that has a roof plan area of less than 20 m², that is free standing and not attached to any other building shall not be erected closer than

a) 1,0 m to any boundary, and

b) the safety distance from any building derived from 4.2, unless a free-standing masonry or concrete wall that has a height greater than 0,3 m above the bottom line of the lapa roof and which extends at least 1,0 m on either side of the lapa is erected.

4.12.2.3 Buildings and lapas with a thatched roof plan area greater than 300 m² or which are closer than the greater of 4,5 m to any boundary and the safety distances from an existing building derived from 4.2, subject to 4.12.2.1, shall be provided with additional fire protection systems that are acceptable in relation to the actual roofing system that is to be used,

4.12.2.5 Buildings and lapas with thatched roofs in areas with a lightning flash density greater than 7 (see SANS 10313) shall be provided with a lightning protection system designed and installed by competent persons in accordance with the relevant requirements of SANS 10313 and SANS-62305-3.

4.12.2.6 Buildings and lapas in which wire or metal rods(conductive sways) are used in the fixing of the thatch layer shall, in areas with a lightning flash density greater than 3 (see SANS 10313), be provided with a lightning protection system, designed and installed by competent persons in accordance with the relevant requirements of SANS 10313 and SANS 62305-3.

4.12.2.7 A fire protection system applied to a thatch roof shall be maintained as specified by the manufacturer of such systems.

4.12.3 Fire stability of roof assembly or components

4.12.3.1 The roof assembly shall be considered to be a single building component that may consist of a ceiling, thermal insulation, structural components and covering.

4.12.3.2 Where no ceilings are provided, or the roof assembly does not act as a single component, the fire stability of the individual components needs to be checked in accordance with 4.7.

Note A non- combustible ceiling acts as a thermal barrier and prevents flame spread. The use of a fire rated ceiling will increase the stability period.

4.12.3.3 The roof assembly which is located in an occupancy given in column 1 of table 5 shall, when tested in accordance with SANS 10177-2, comply with the requirements for stability for a period given in columns 3 to 7 of table 5 for the corresponding number of stories

4.13 Ceilings

4.13.1 In any building that is not a building classified as E4, H3, H4 and H5, combustible material shall not be used for any ceiling or suspended ceiling, or as a component thereof, except as provided for in the following:

a) a ceiling material, tested in accordance with SANS 10177-5 and found to be combustible, shall be acceptable if it is used in terms of its classification in accordance with SANS 428; and

b) air supply grilles or return-air intake grilles of combustible material, where the sum of the area of all such grilles form not more than 5 % of the total area of such ceiling and the overall area of any individual grille is not more than 0,09 m², shall be permitted.

4.13.2 Where a space is formed between a ceiling and a roof covering or structure see 4.12.1.6.

4.12.1.6 Where roof space is formed between any ceiling and any roof covering, such space shall be divided by means of non-combustible fire stops with a stability and integrity rating of at least 20 min into areas of not more than 500 m².

The distance between such fire stops shall be not more than 30 m, provided that this requirement shall not apply where such roof space and the room below are protected by a fixed automatic firefighting system and smoke control system in accordance with 4.42.

If any combustible materials are installed in such roof space, such as combustible insulation, then the area for non-combustible fire stops shall be not more than 250 m² and the distance between such fire stops shall not be more than 20 m.

Any such roof space used as an air-conditioning or artificial ventilation system plenum shall comply

with the requirements of 4.43.6. No combustible elements, excluding purlins and battens, shall penetrate the fire stop.”

The TASA must itself have to prepare a proposal regarding the wording of the above to submit to the SABS working committee for discussion.

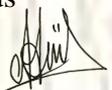
Apart from Messrs. Abrie Visagie, John Smith and André Friis, members who wish to be part of this committee or have a proposal, should please notify the TASA office.

CONTRACTORS IN MANY CASES THE CAUSE THAT INSURANCE CLAIMS ARE DENIED

Our industry suffers tremendous damage due to contractors taking shortcuts and the public who are satisfied with the cheapest quote and then bear the consequences later.



Kind regards

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